



# Graduation

Iris van Gorkom

4593545

21-06-2023

## COMMON SPACE

Sharing spaces in the context of co-housing and production in the M4H area

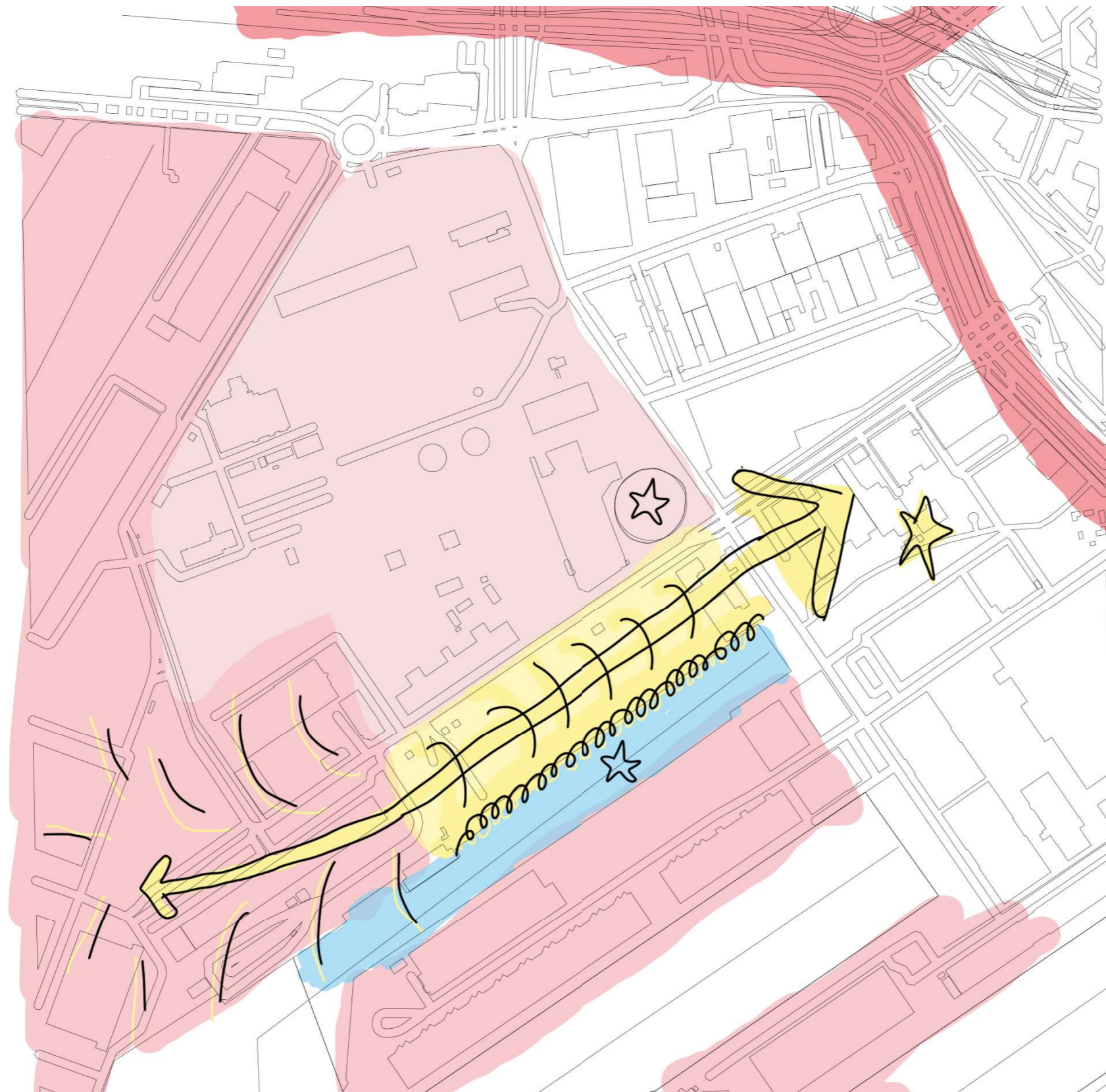


Rotterdam, M4H area

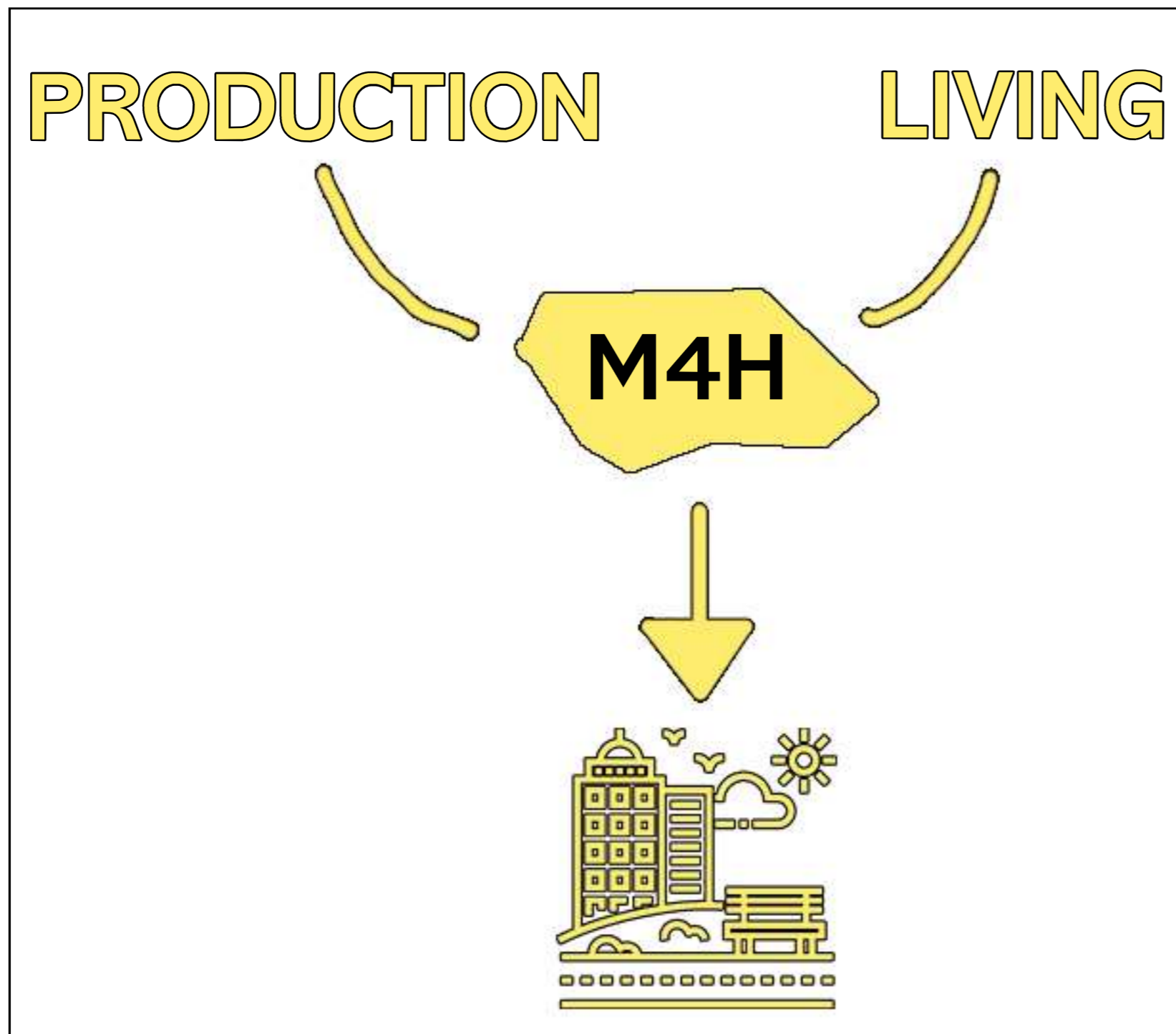


Rotterdam, M4H area





Impact of location



Combining living and production

# RESEARCH

How do shared spaces add value to the city?

What benefits and problems can be found when sharing on different scales?

How can production and co-living go together?



Centraal Wonen de Lismortel, Eindhoven  
Architect unknown  
Completed in 1983.  
Client: the collective de Lismortel



Rotterdamseweg 139, Delft  
Vera Yanovshchinsky Architecten  
completed in 2010.  
Client: DUWO



Haus M, Zurich  
Duplex Architekten  
Completed in 2016  
Client: Mehr Als Wohnen

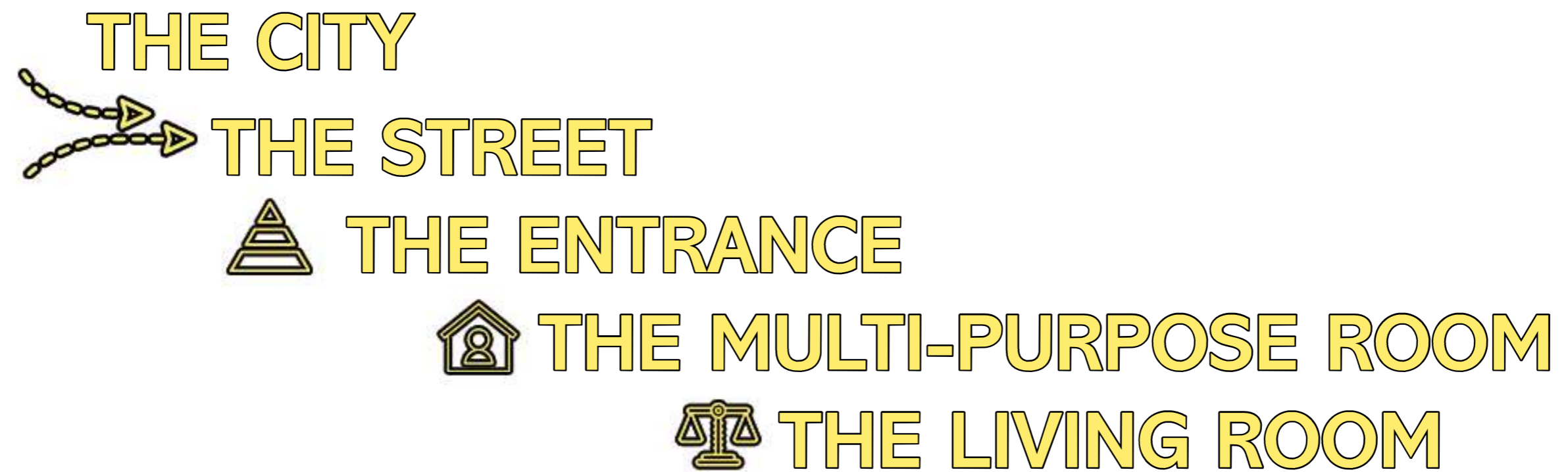
# METHODS

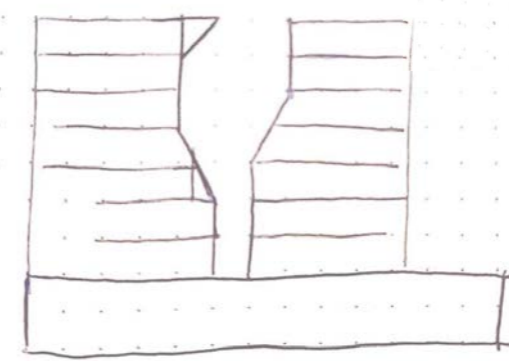
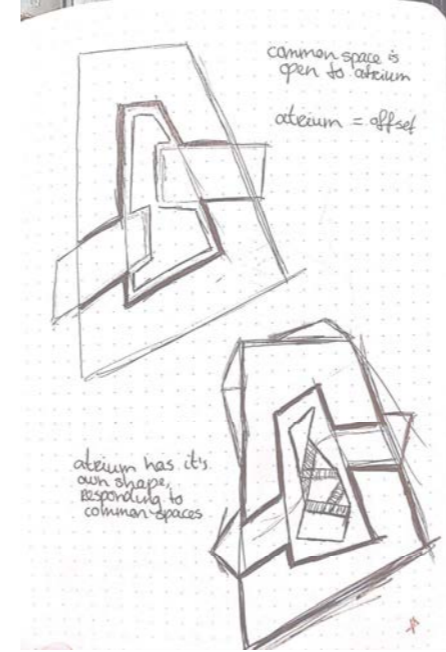
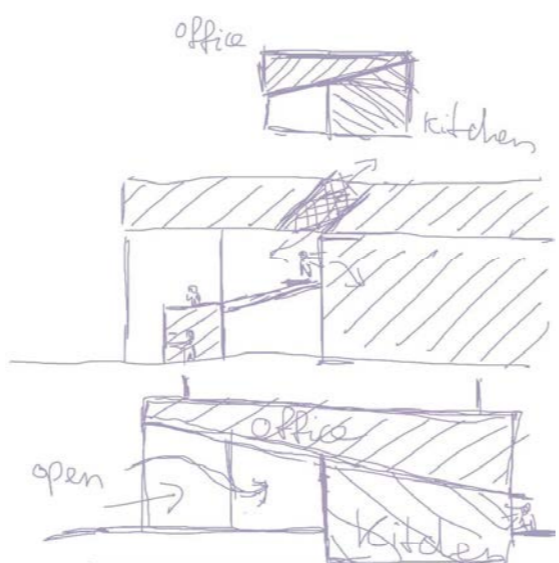
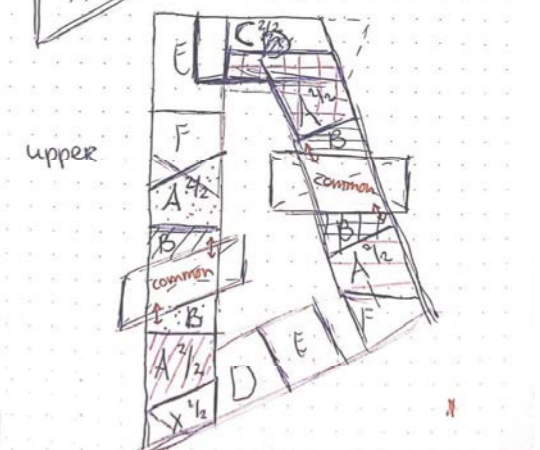
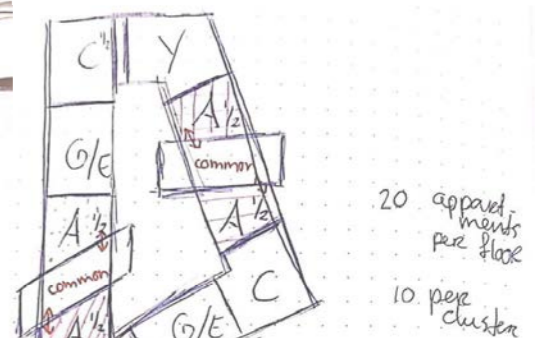
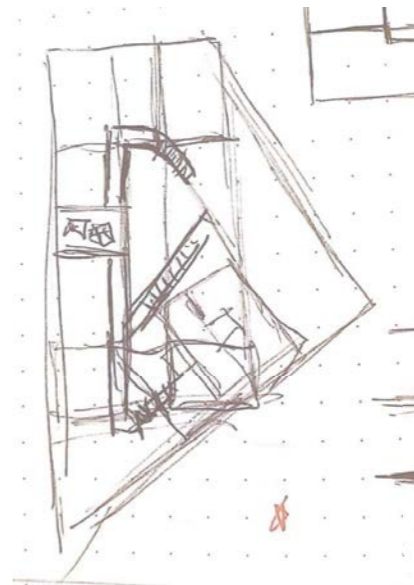
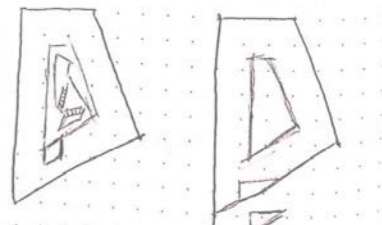
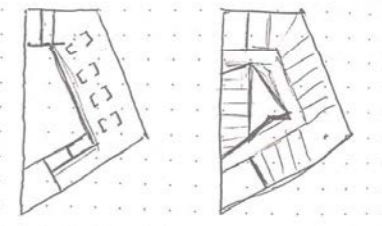
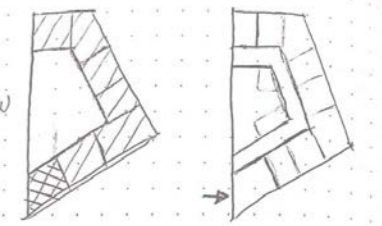
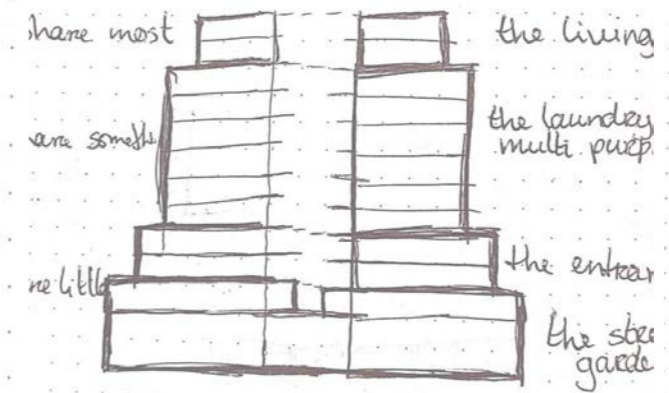
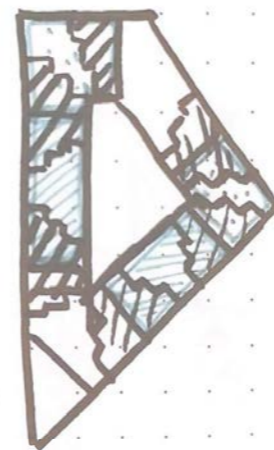
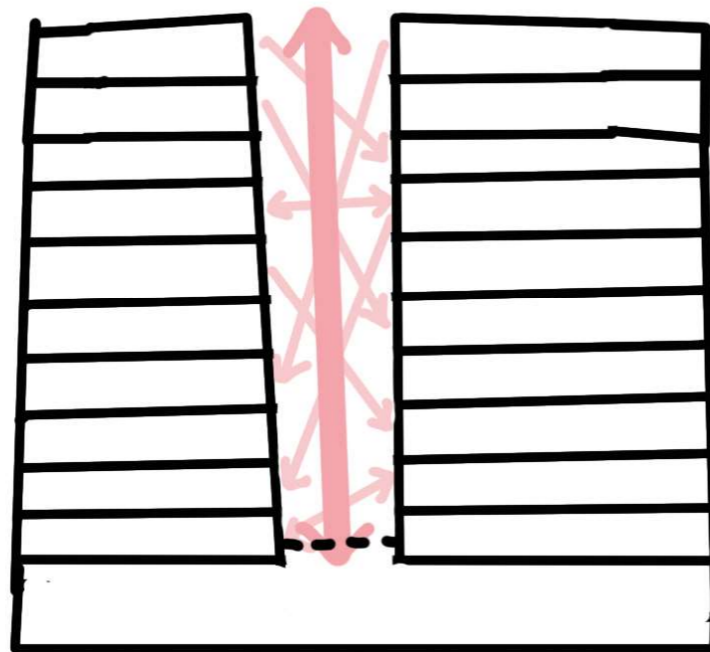
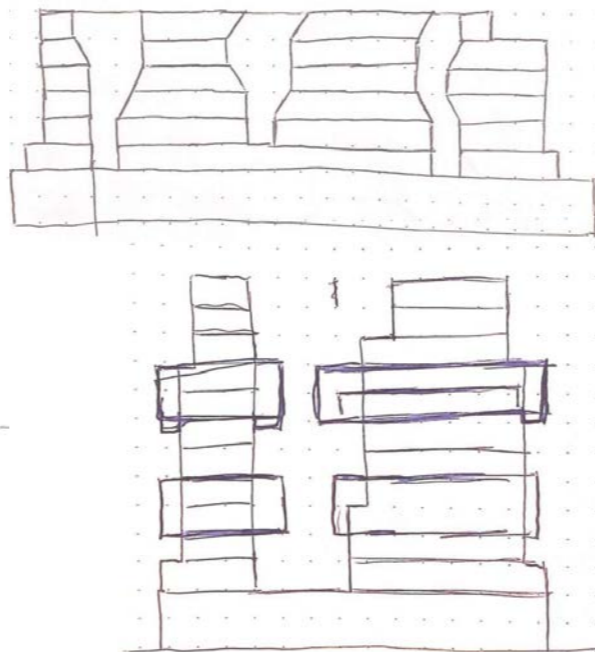
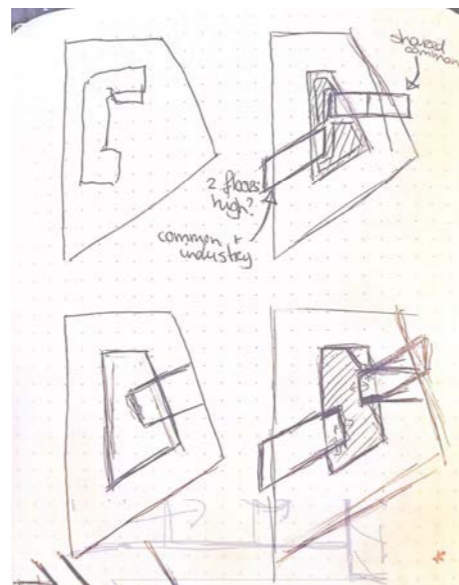
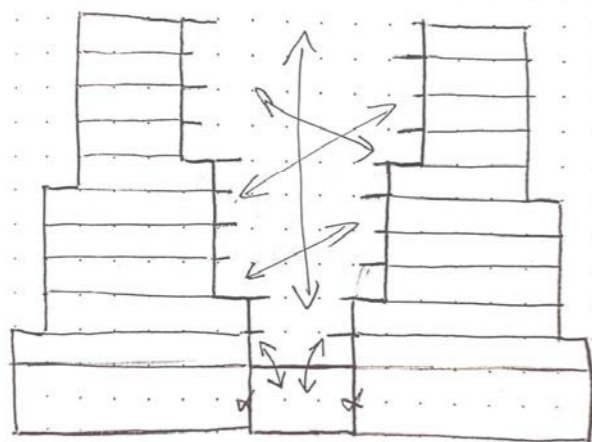
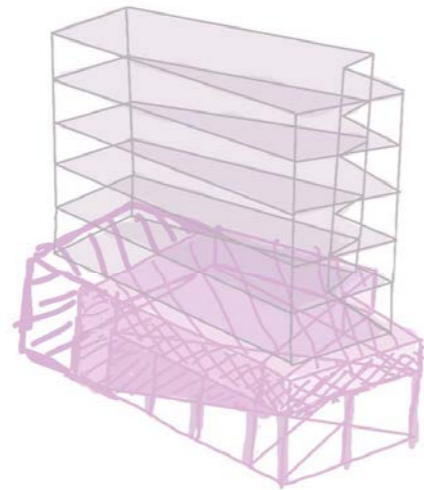
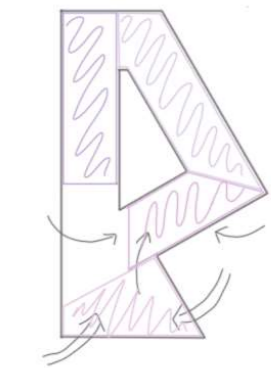
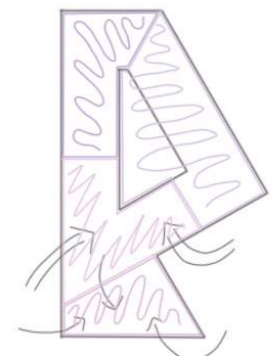
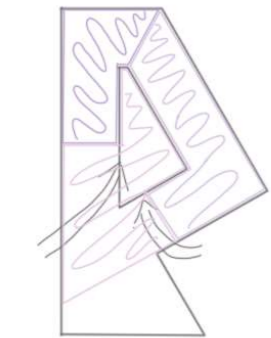


SHARED

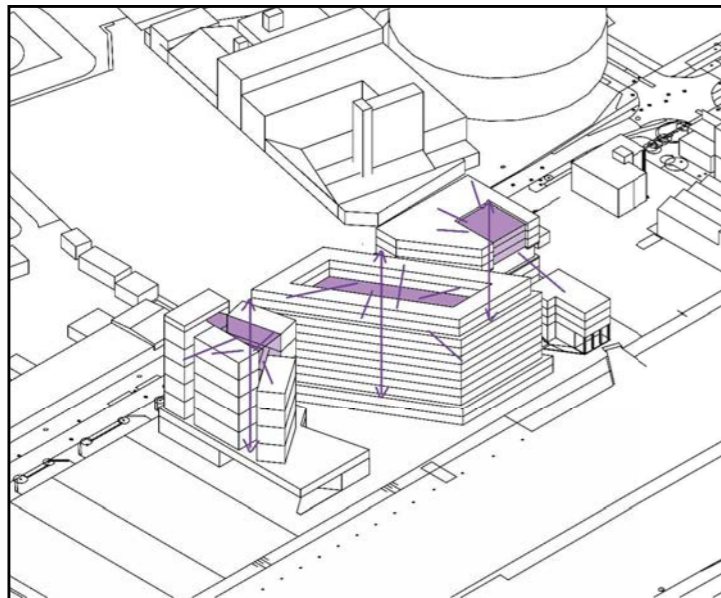


LIVING

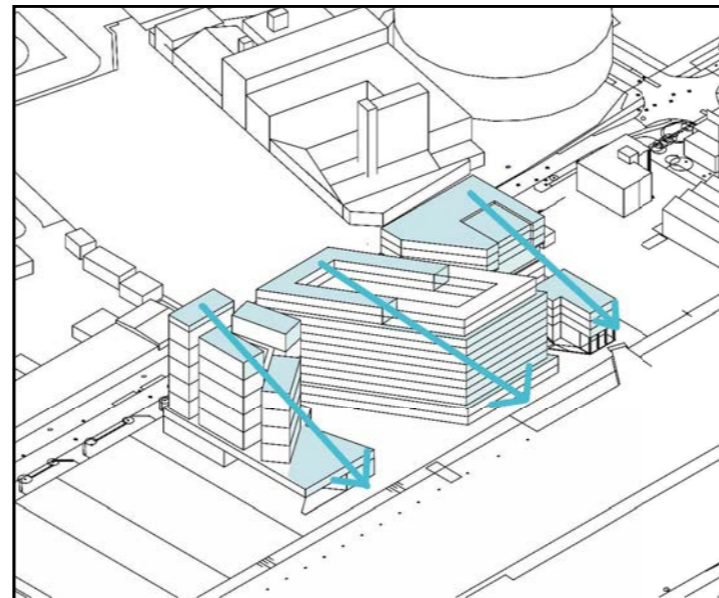




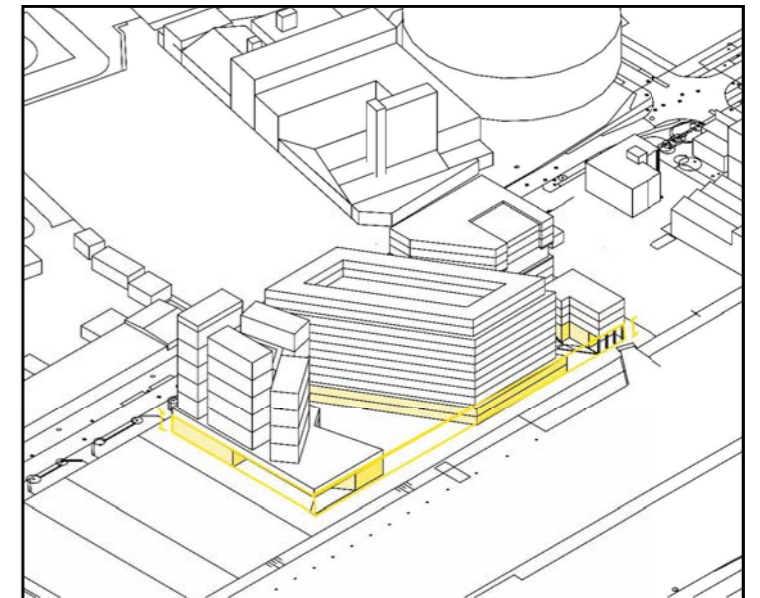
Atrium



**Activated core**  
 programmatic activation of the core, with  
 productive functions placed in the middle

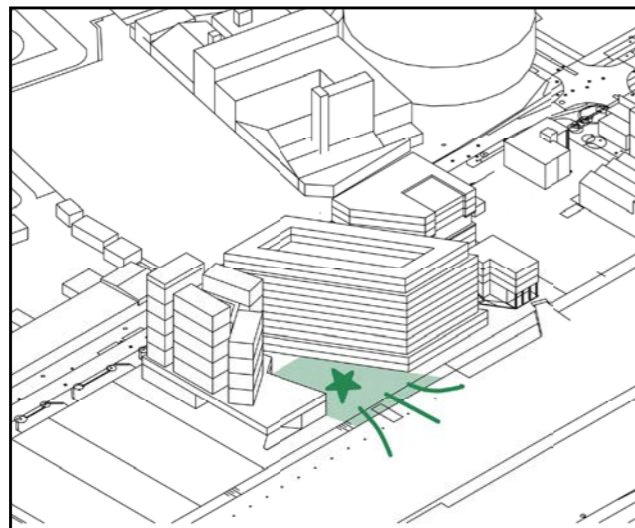
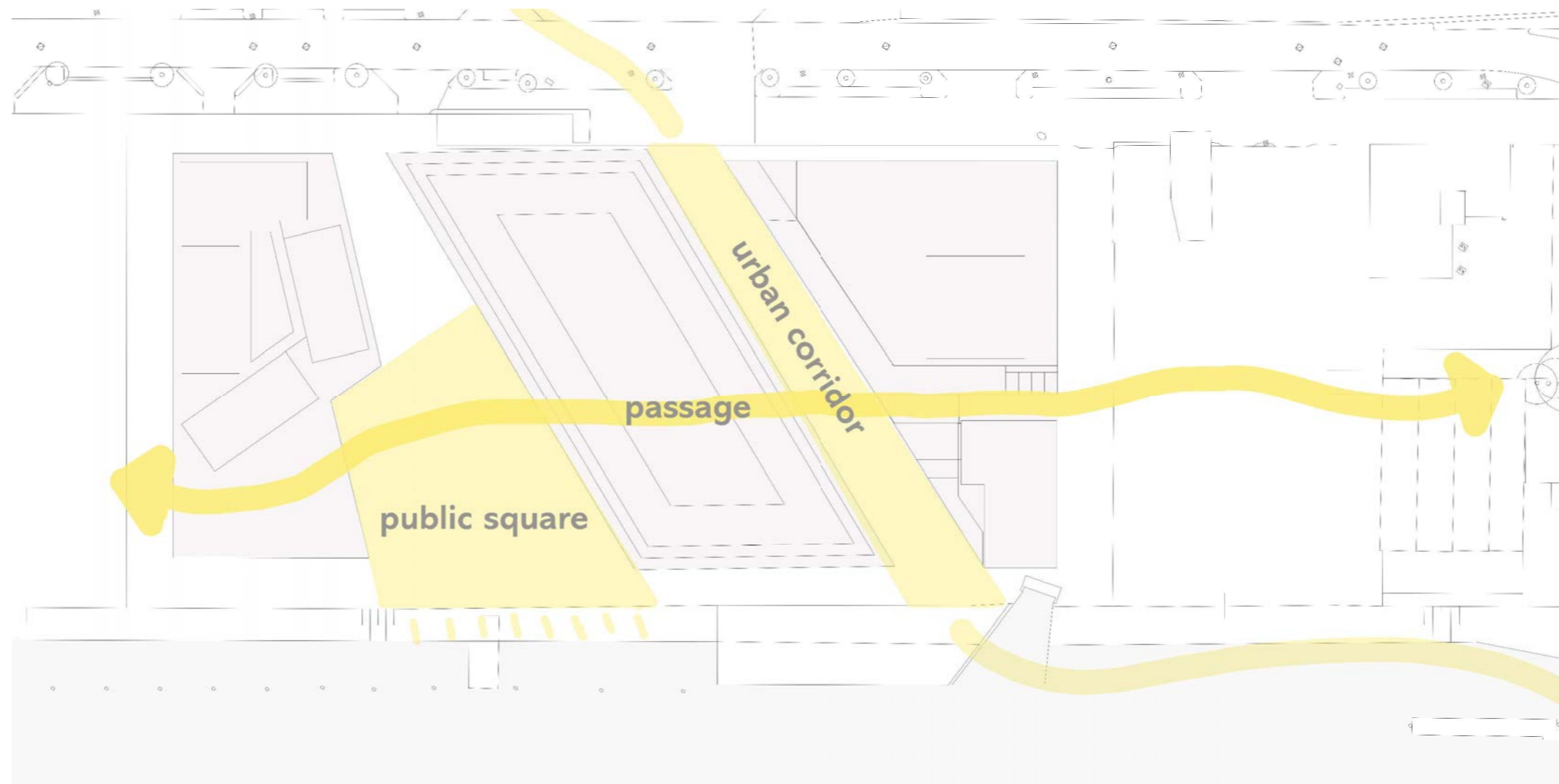


**Stepping down towards the water**  
 connection from building to the waterfront

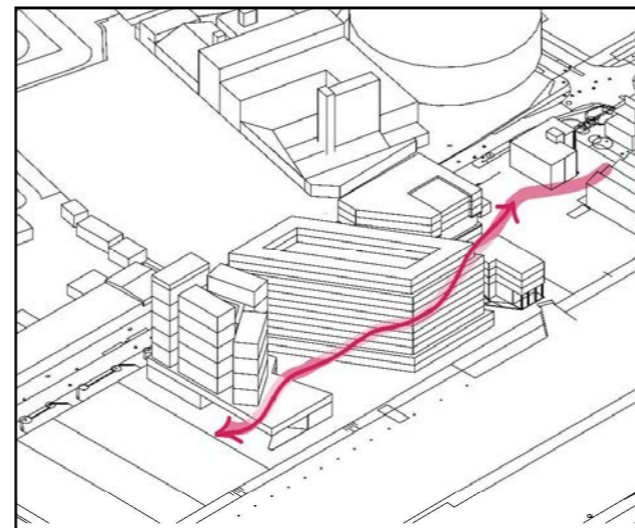


**Public plinth**  
 active plinth with (semi) public functions,  
 activating the lower floors and introducing the  
 scale of the human body into the neighborhood

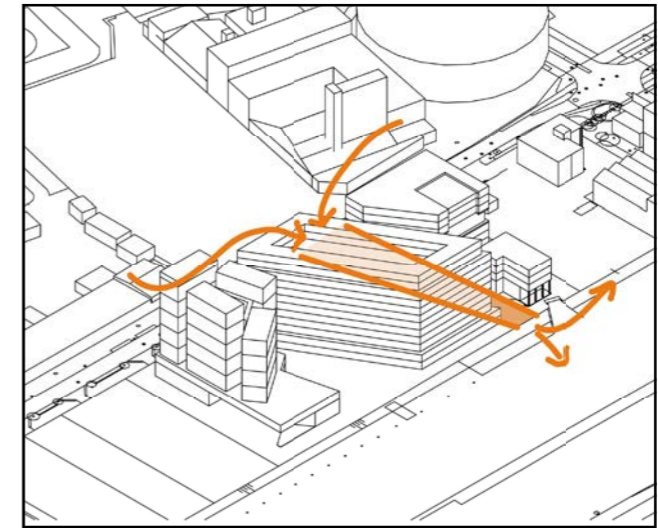
Masterplan



**Public square**  
meeting space, where residents, workers and neighbors can come together



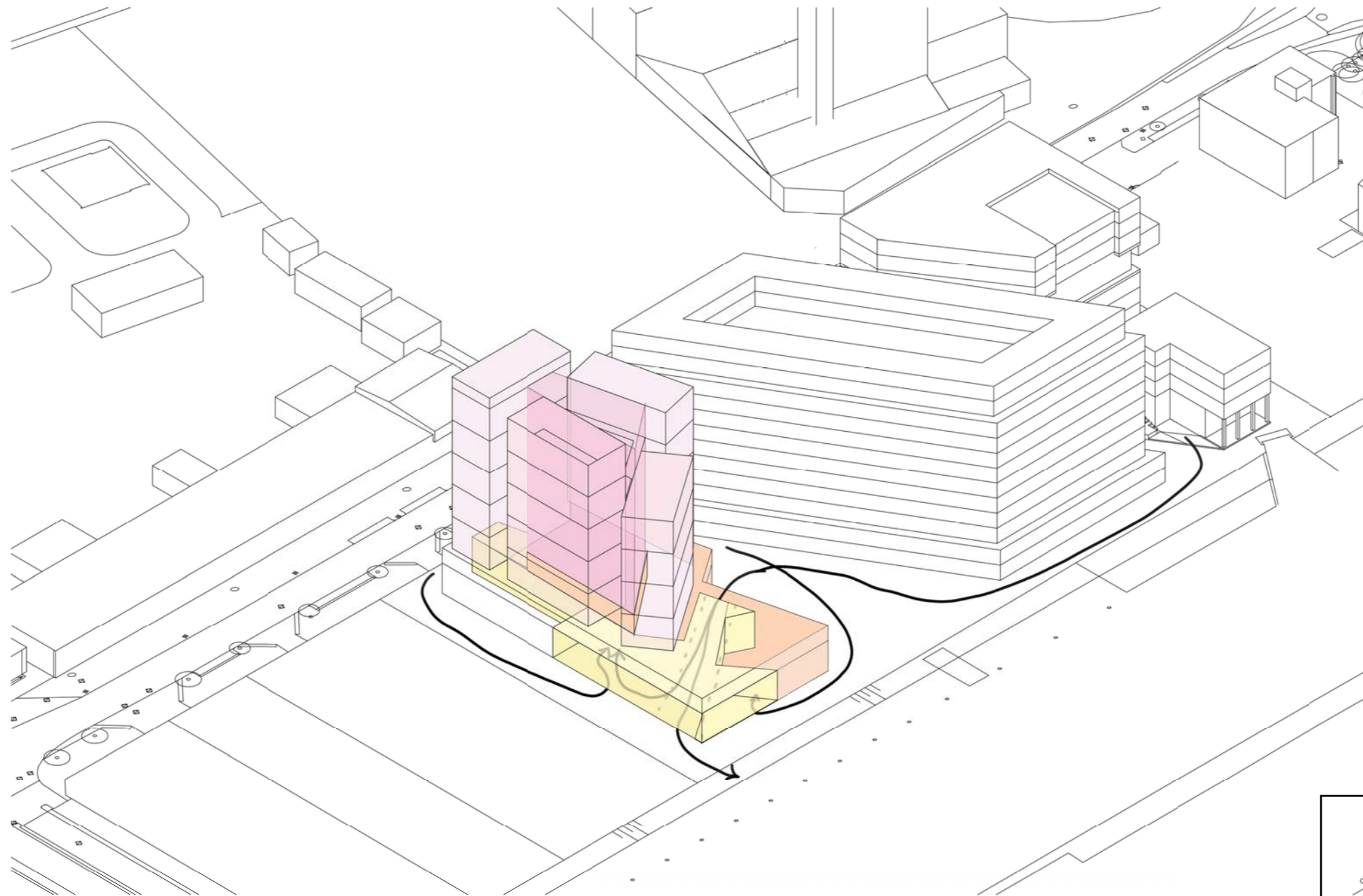
**Passage**  
connecting the already lively East area to the closed of industrial West area

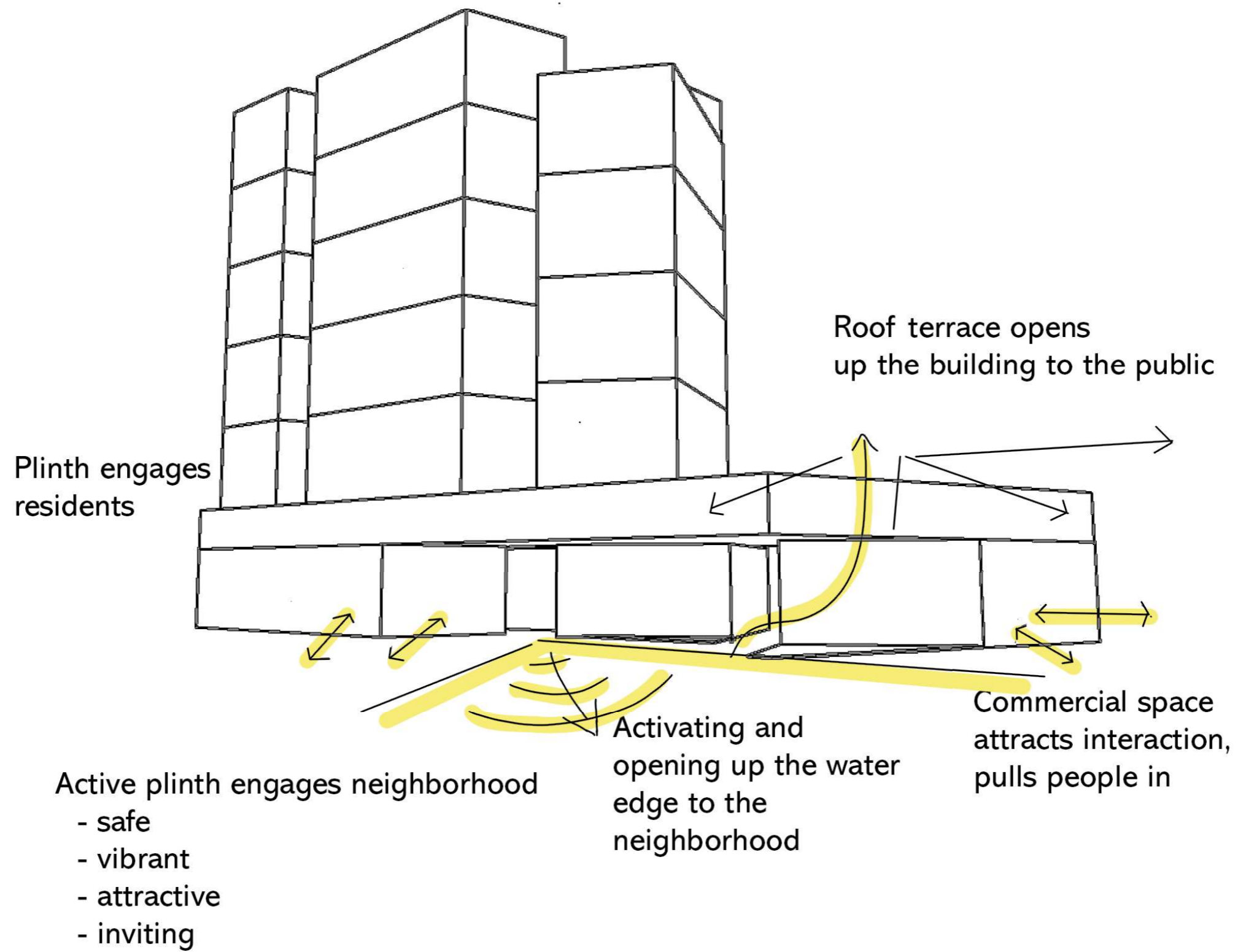


**Urban corridor**  
connection from city to the waterfront, giving residents and neighbors access to the water

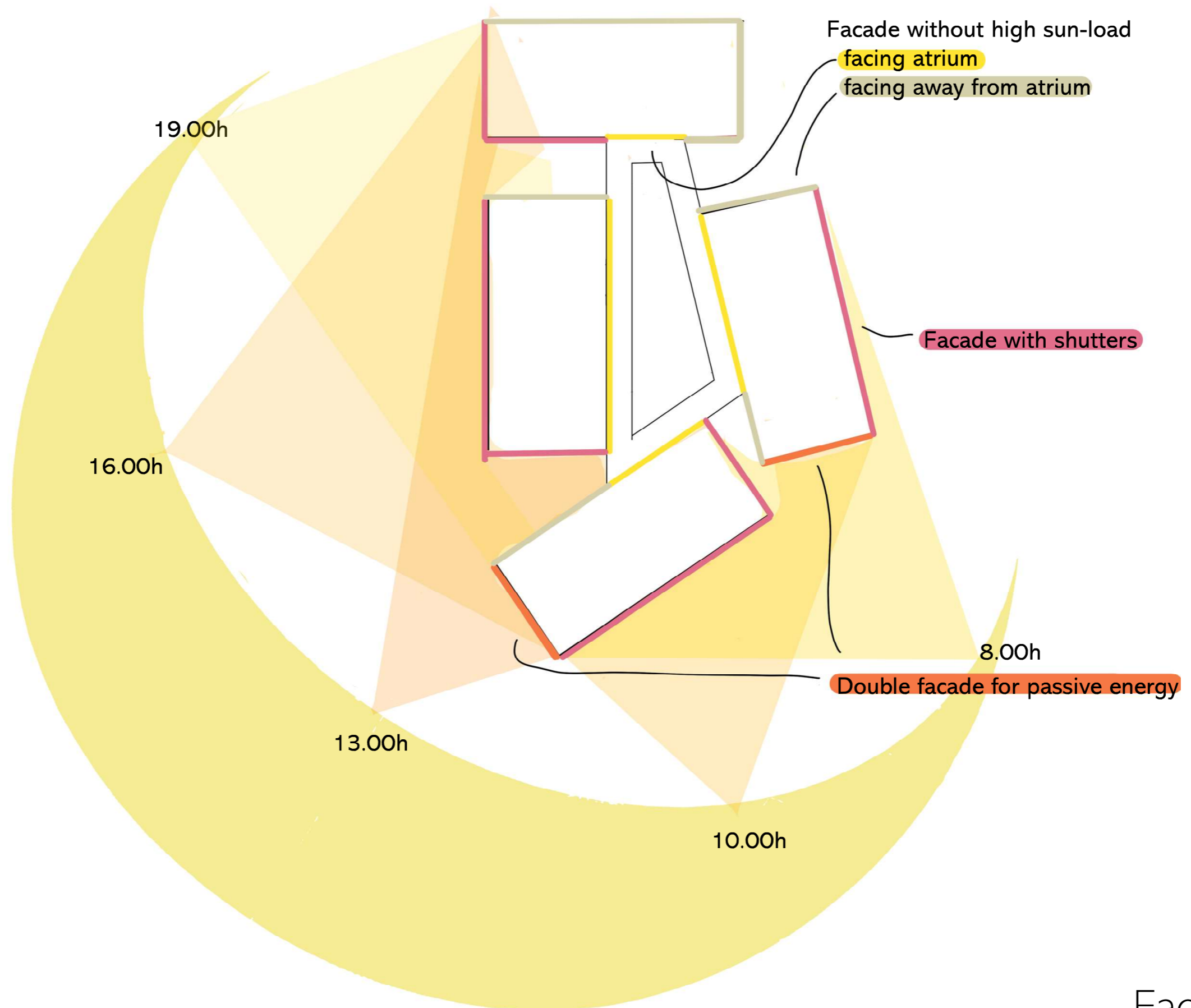


Masterplan Group

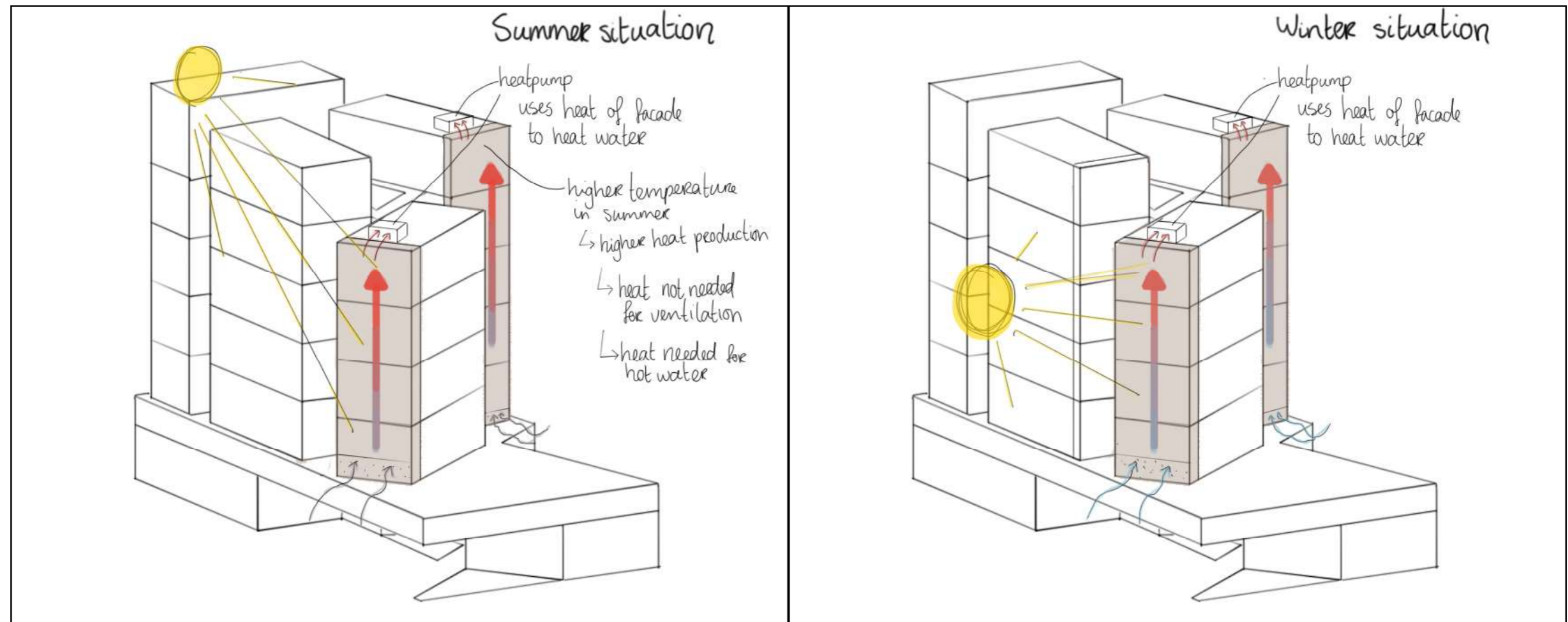




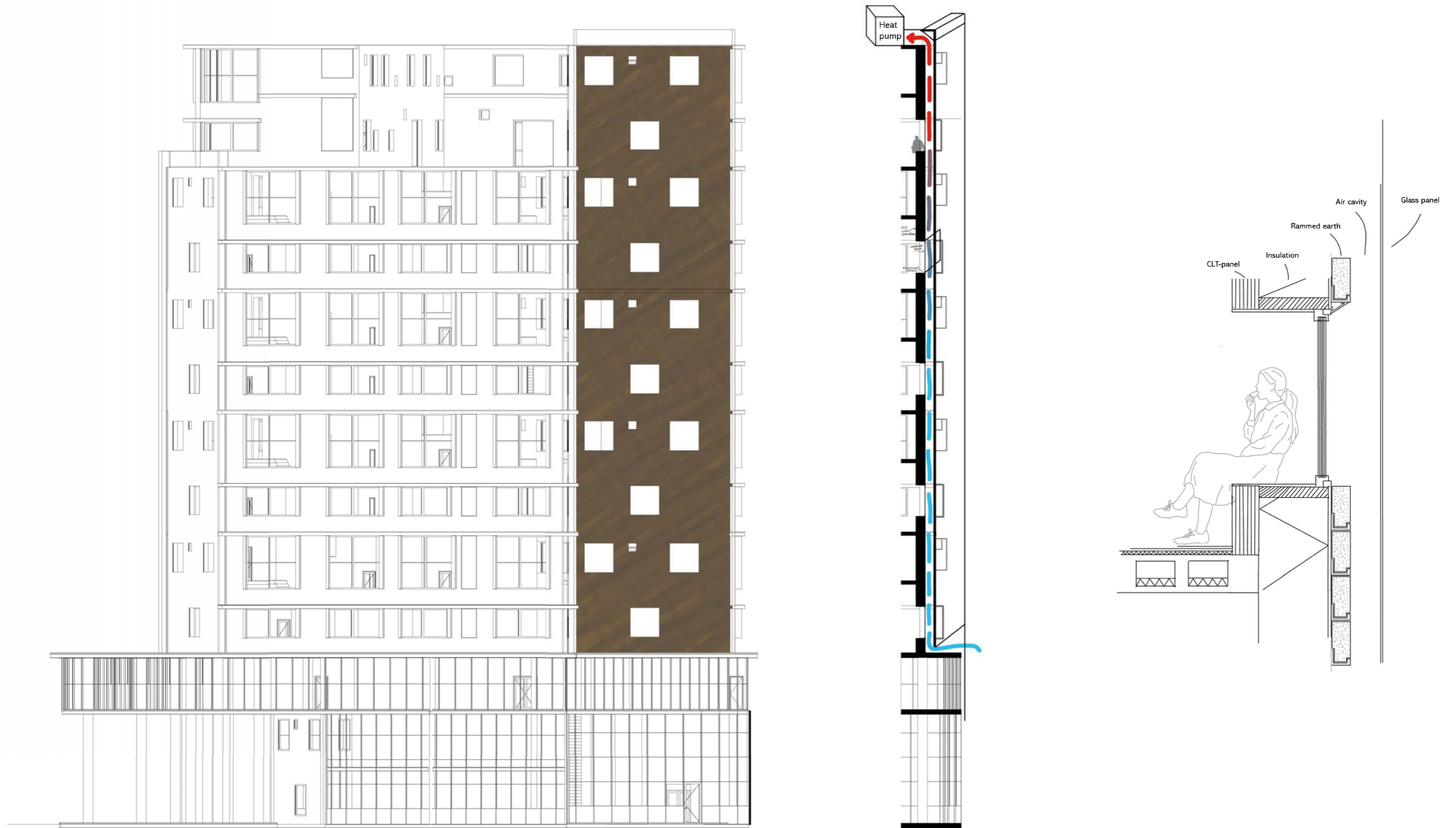
Impact of volume on surroundings



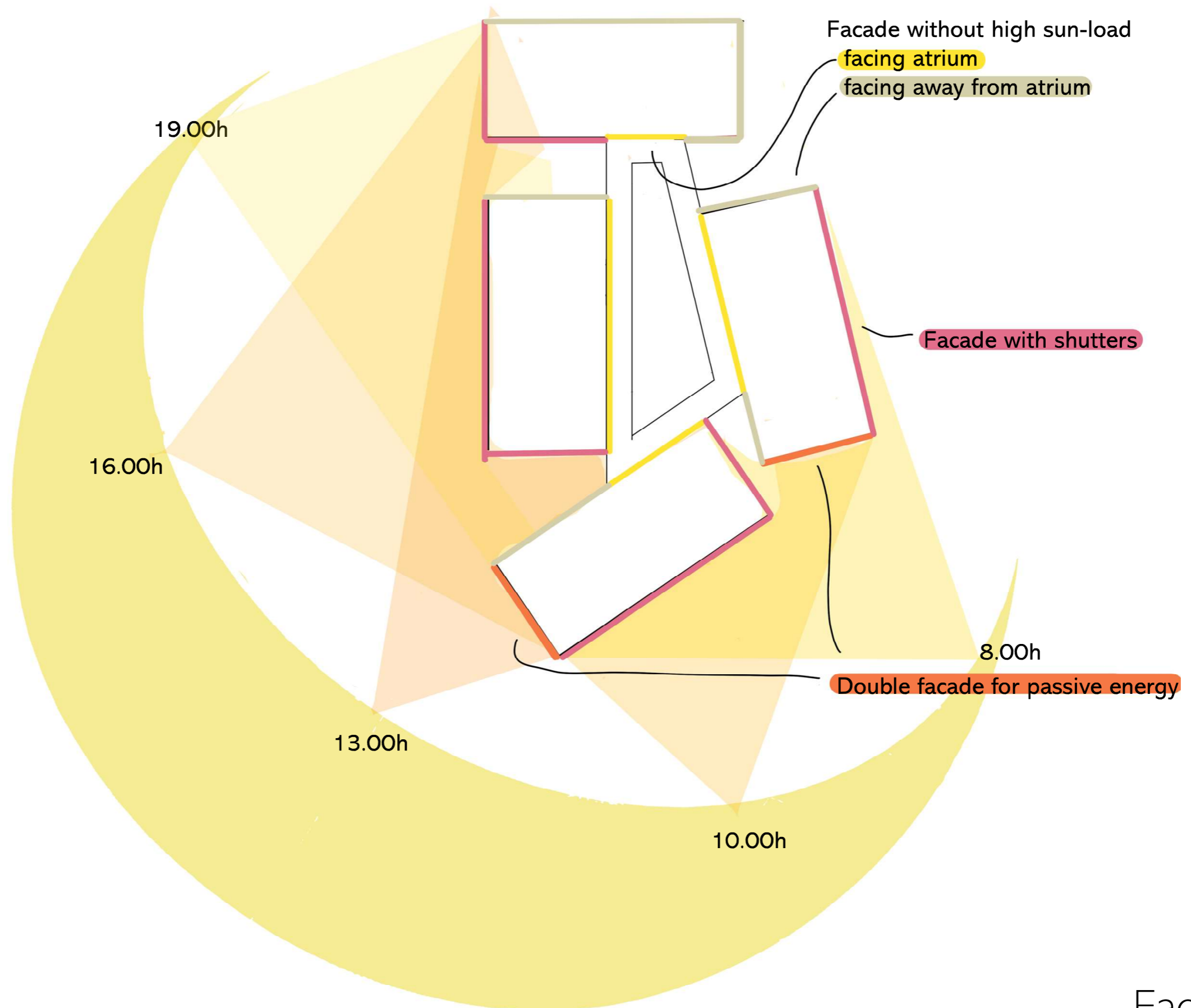
Facade types



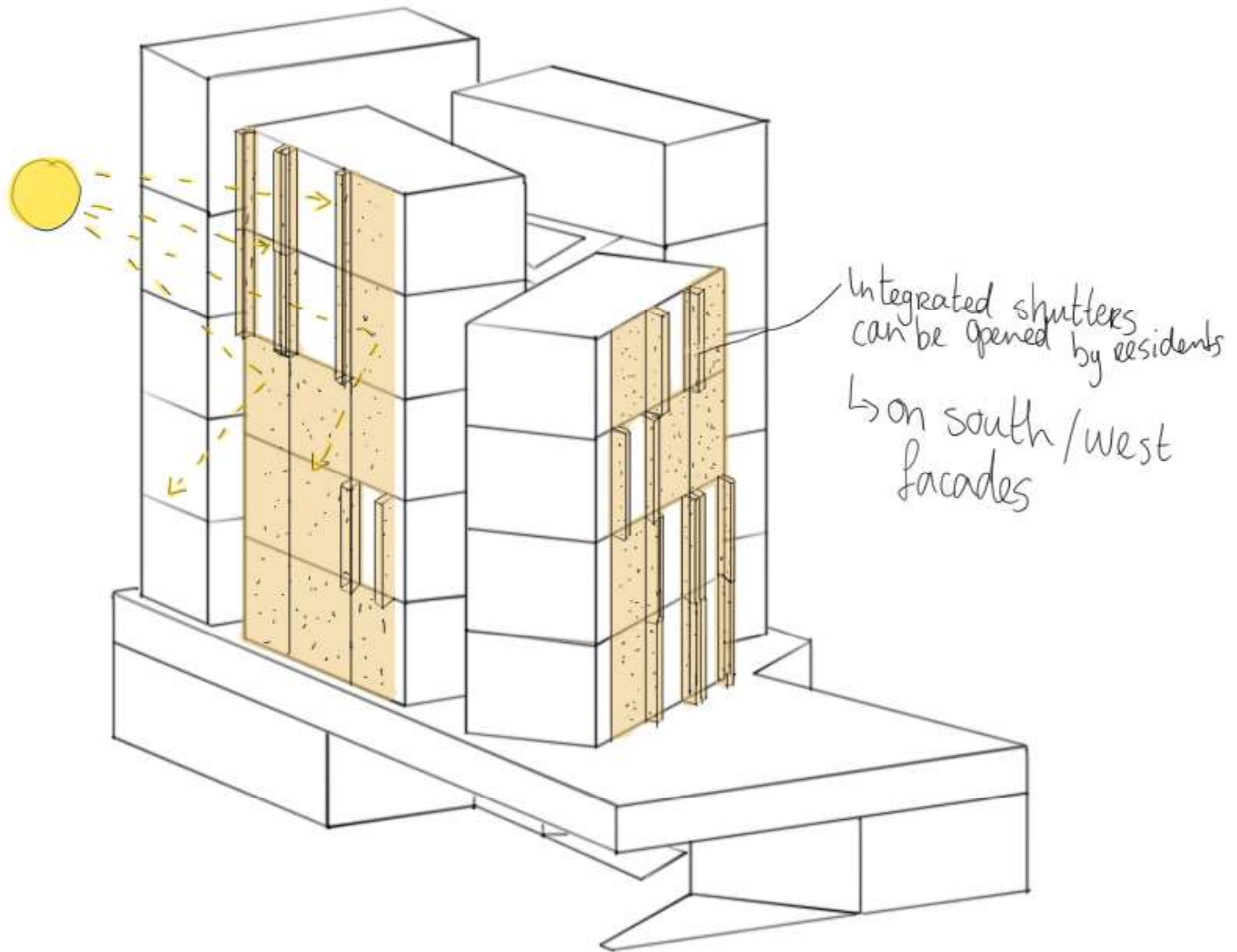
Passive measures -- passive facade for energy collection



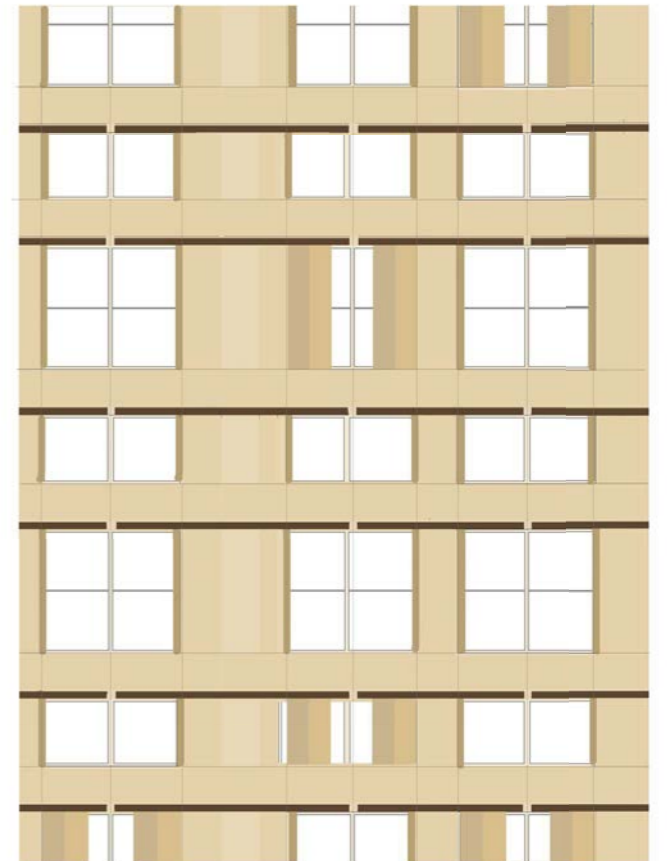
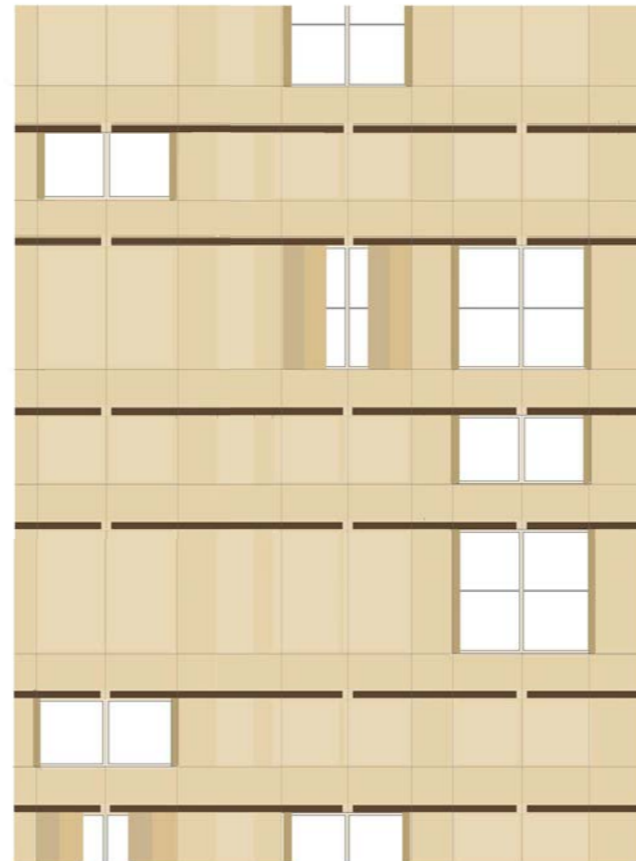
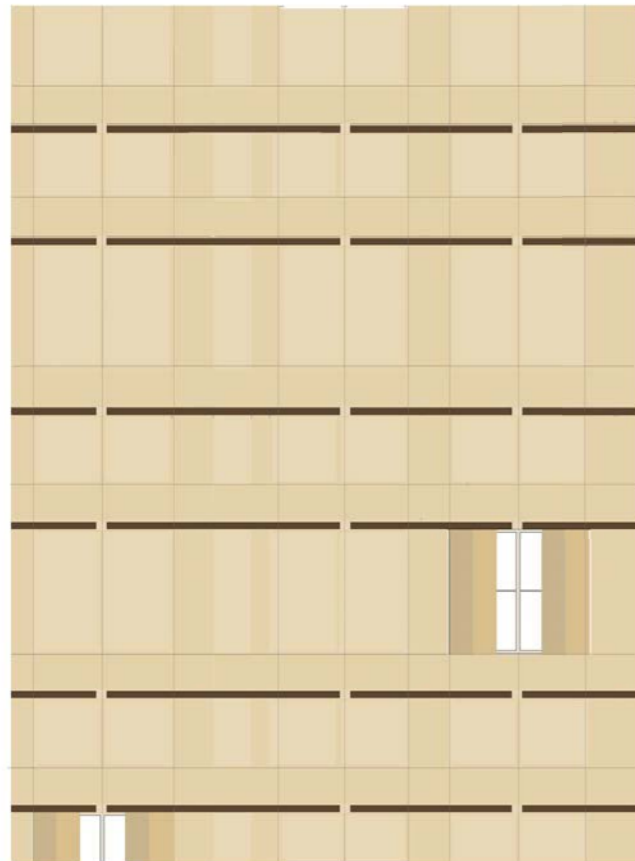
Passive measures -- passive facade for energy collection



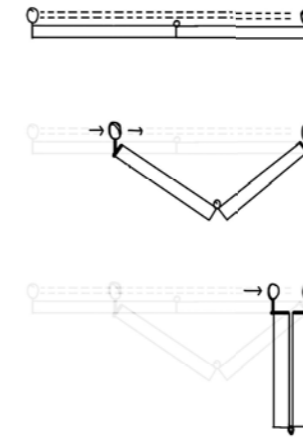
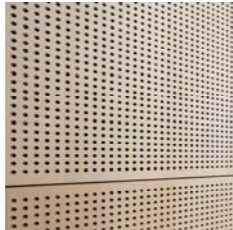
Facade types



Passive measures -- shutters



Facade with shutters



Facade materialisation

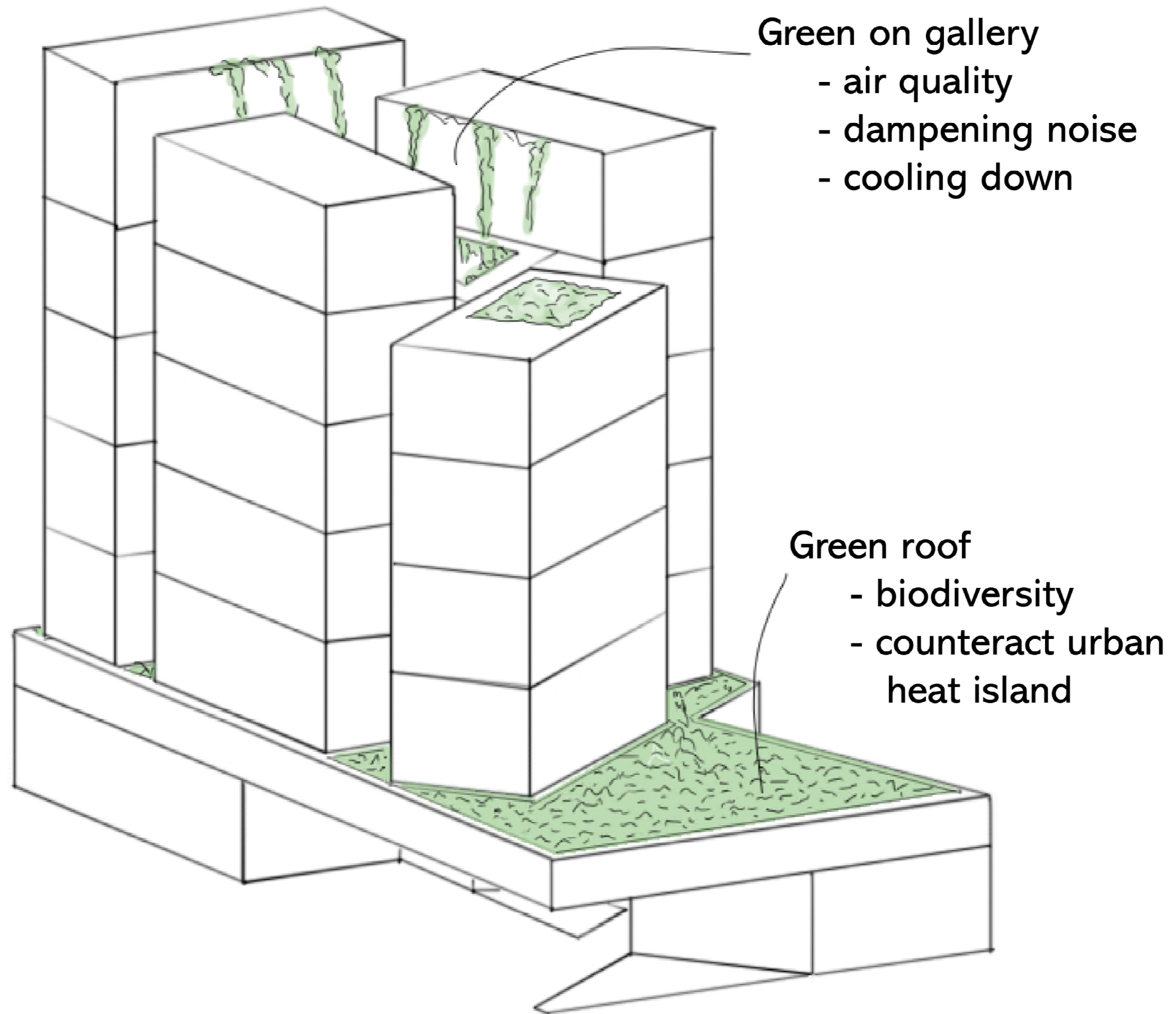


West elevation 1:200

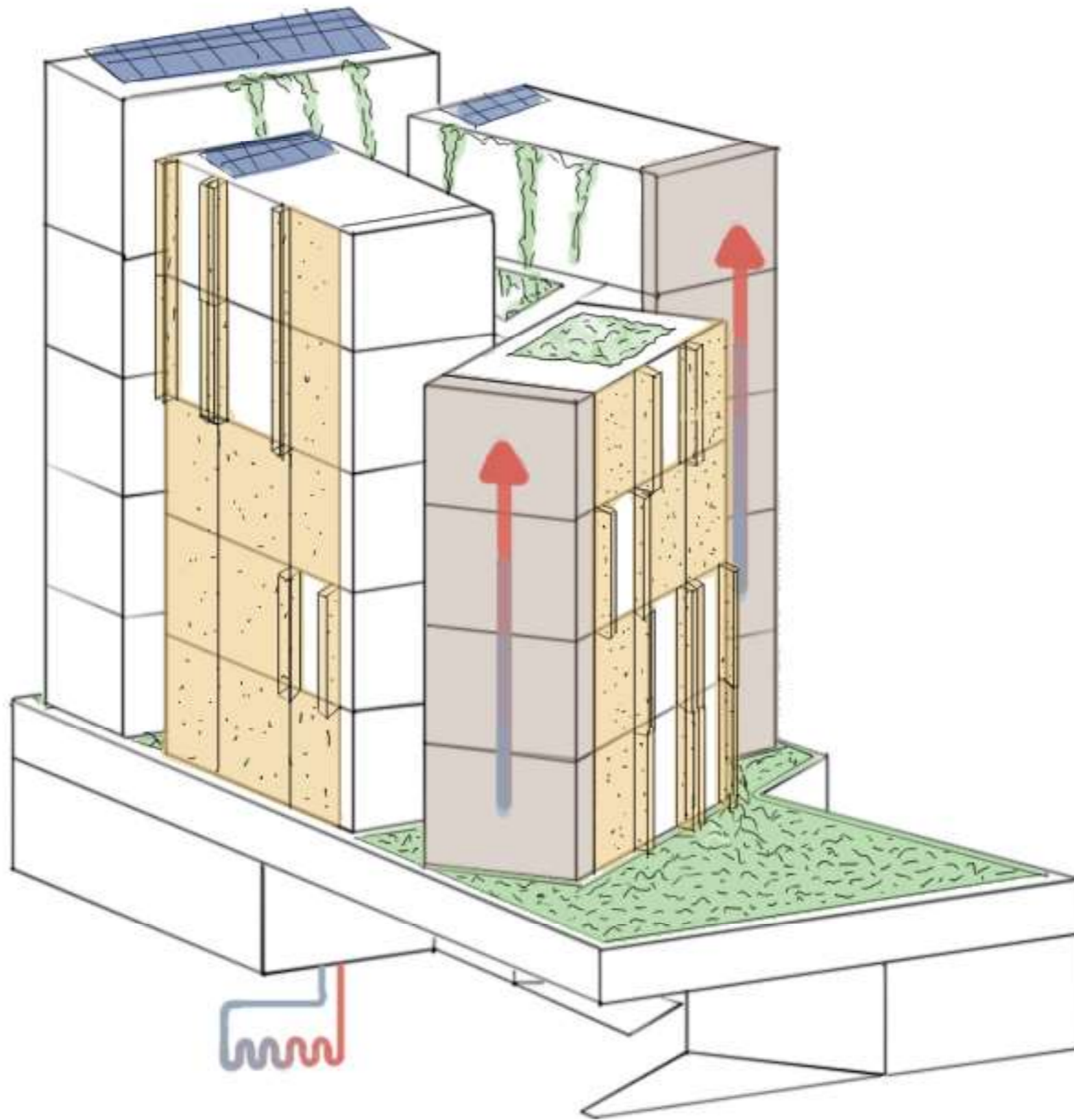




Section 1:200

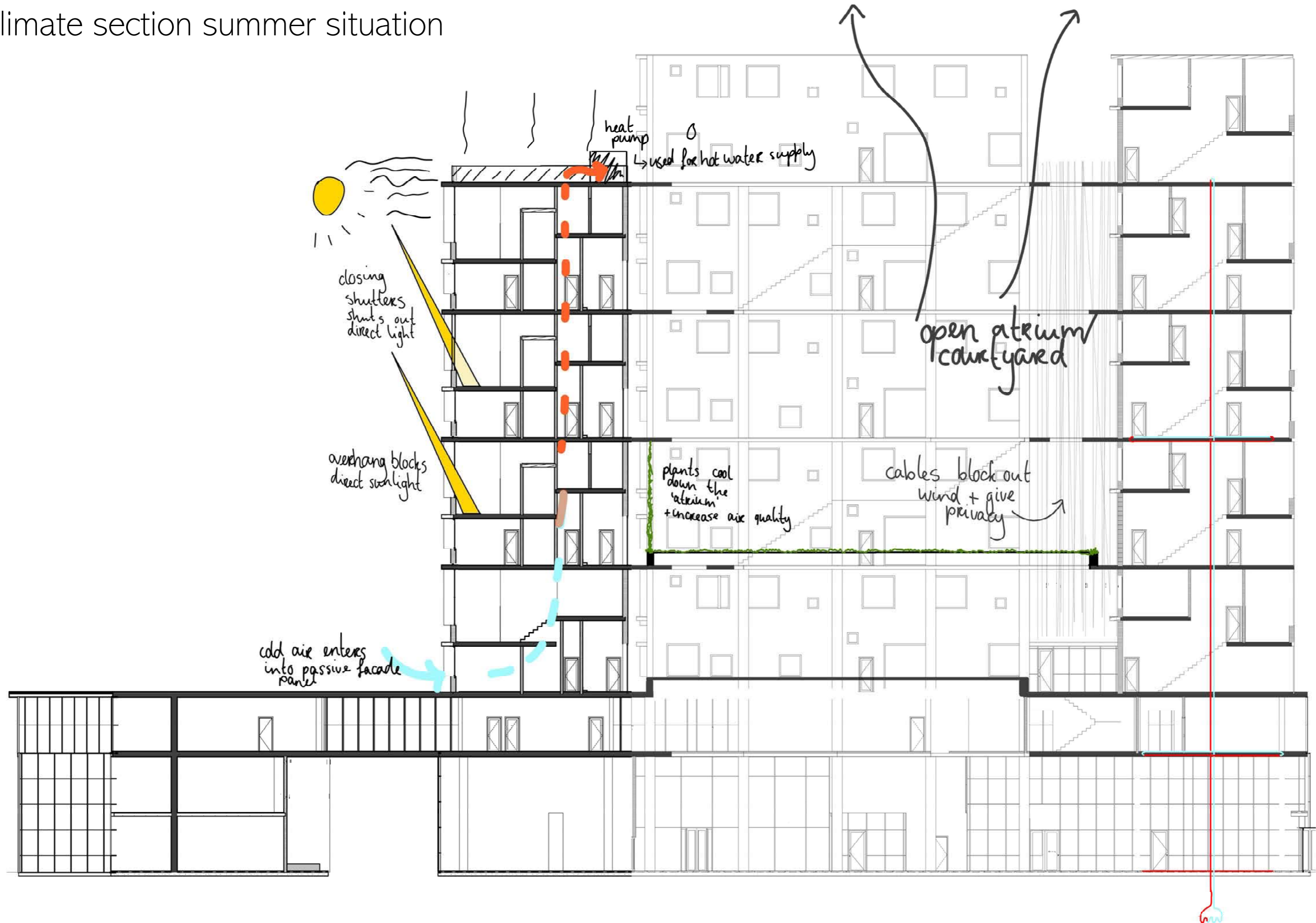


Passive measures -- greenery

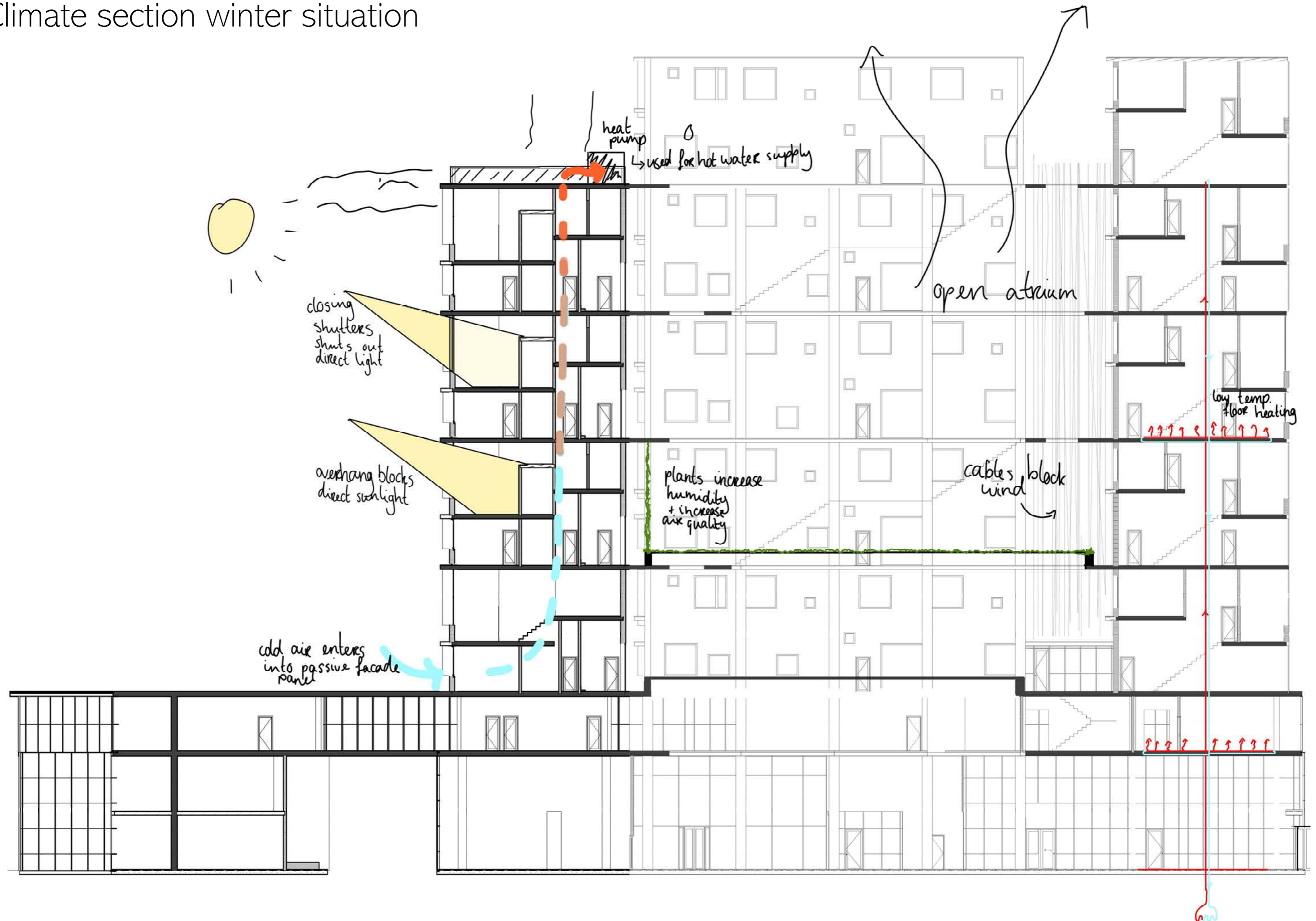


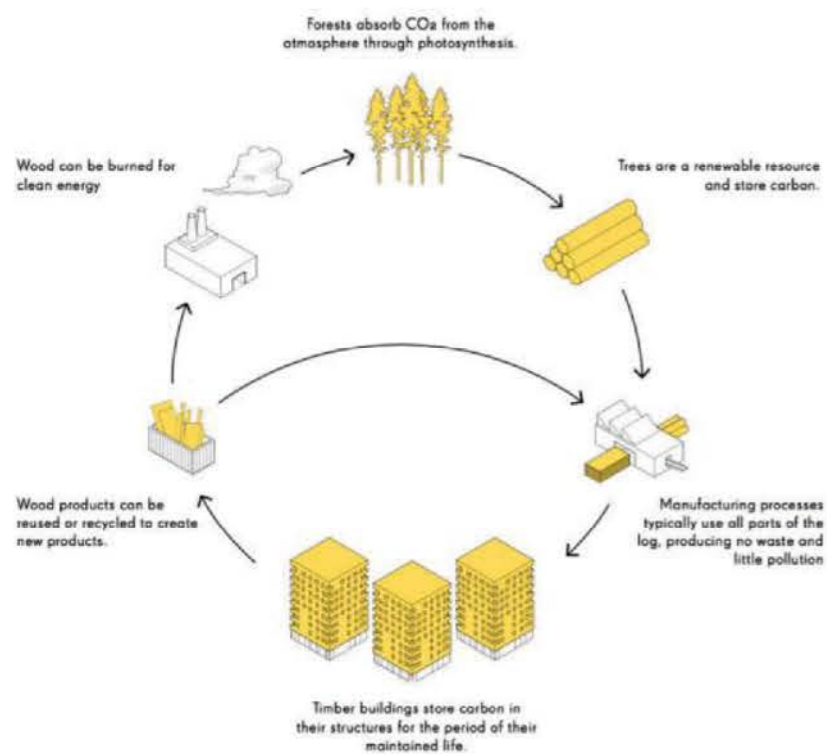
Climate summary

Climate section summer situation

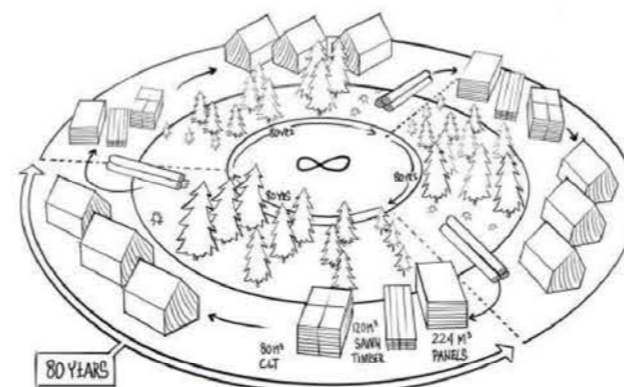


# Climate section winter situation



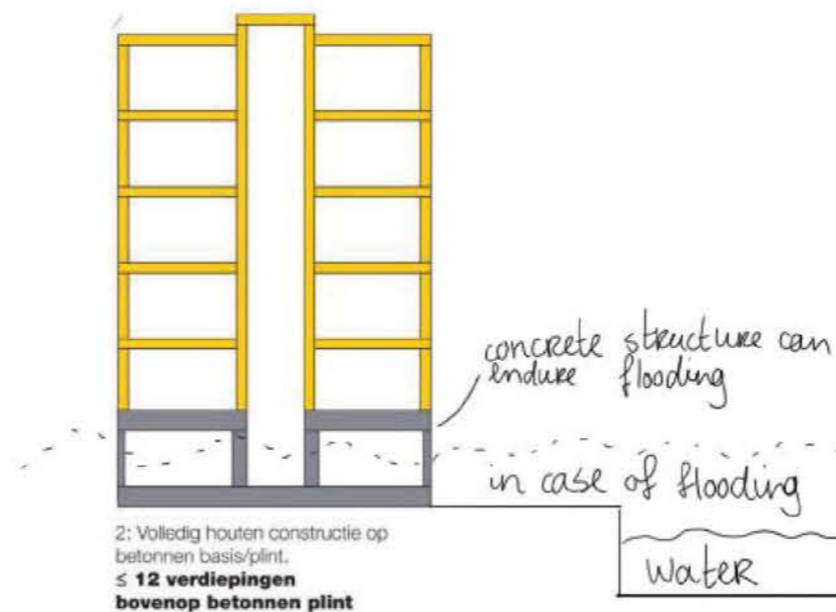
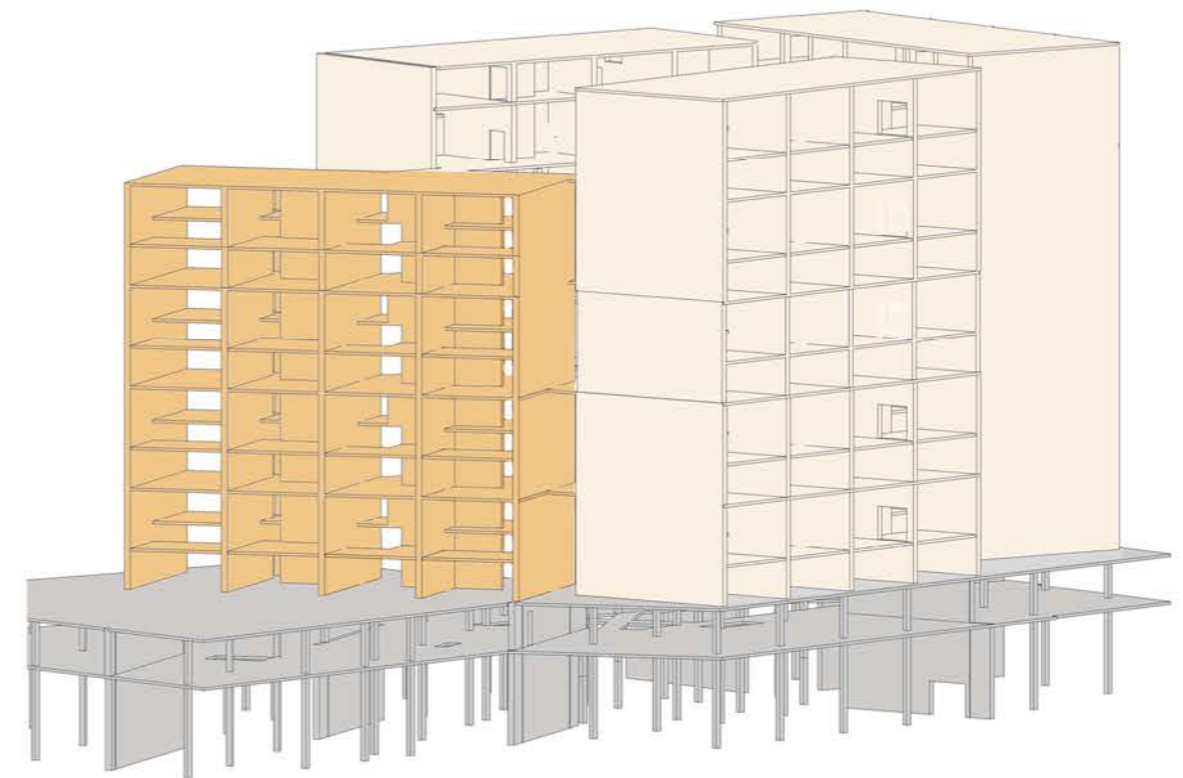


Bouwen in CLT: duurzaam en circulair - © Waugh Thistleton Architects

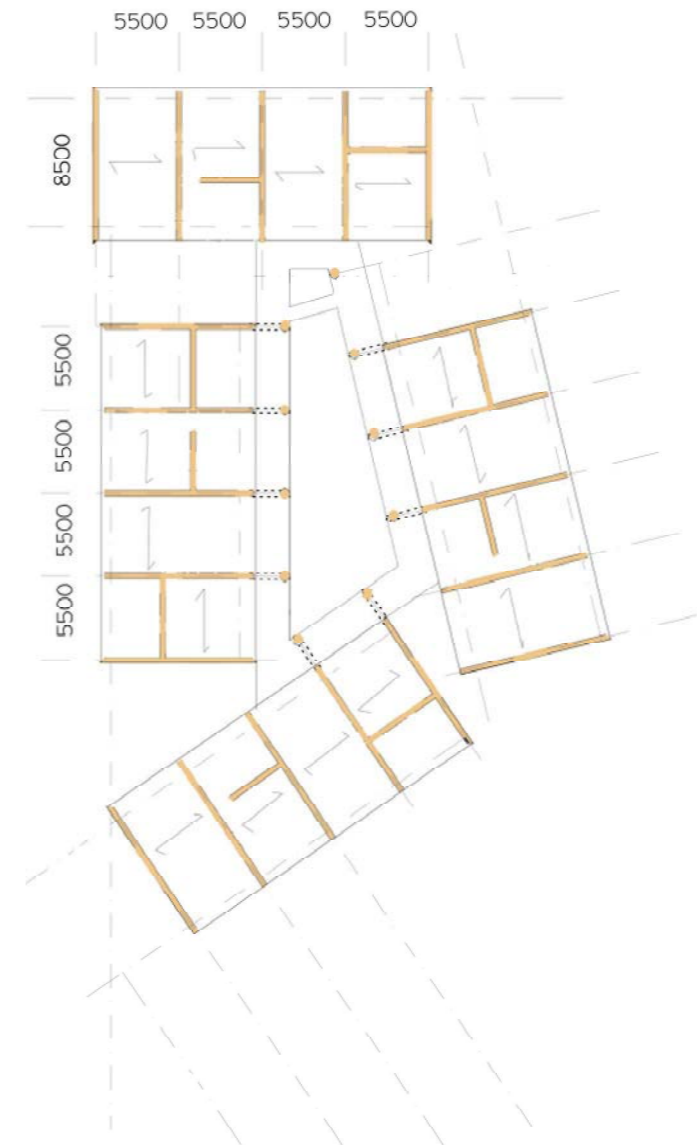
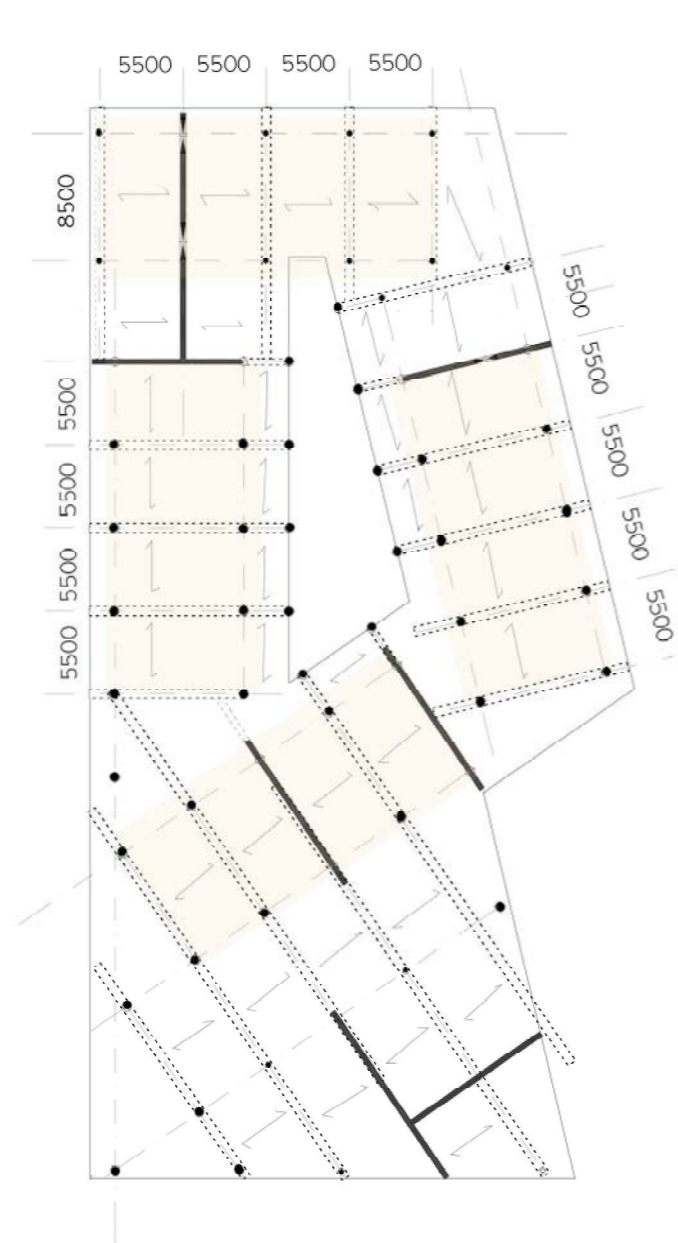


De eeuwige hout cyclus © www.tomorrowstimber.com

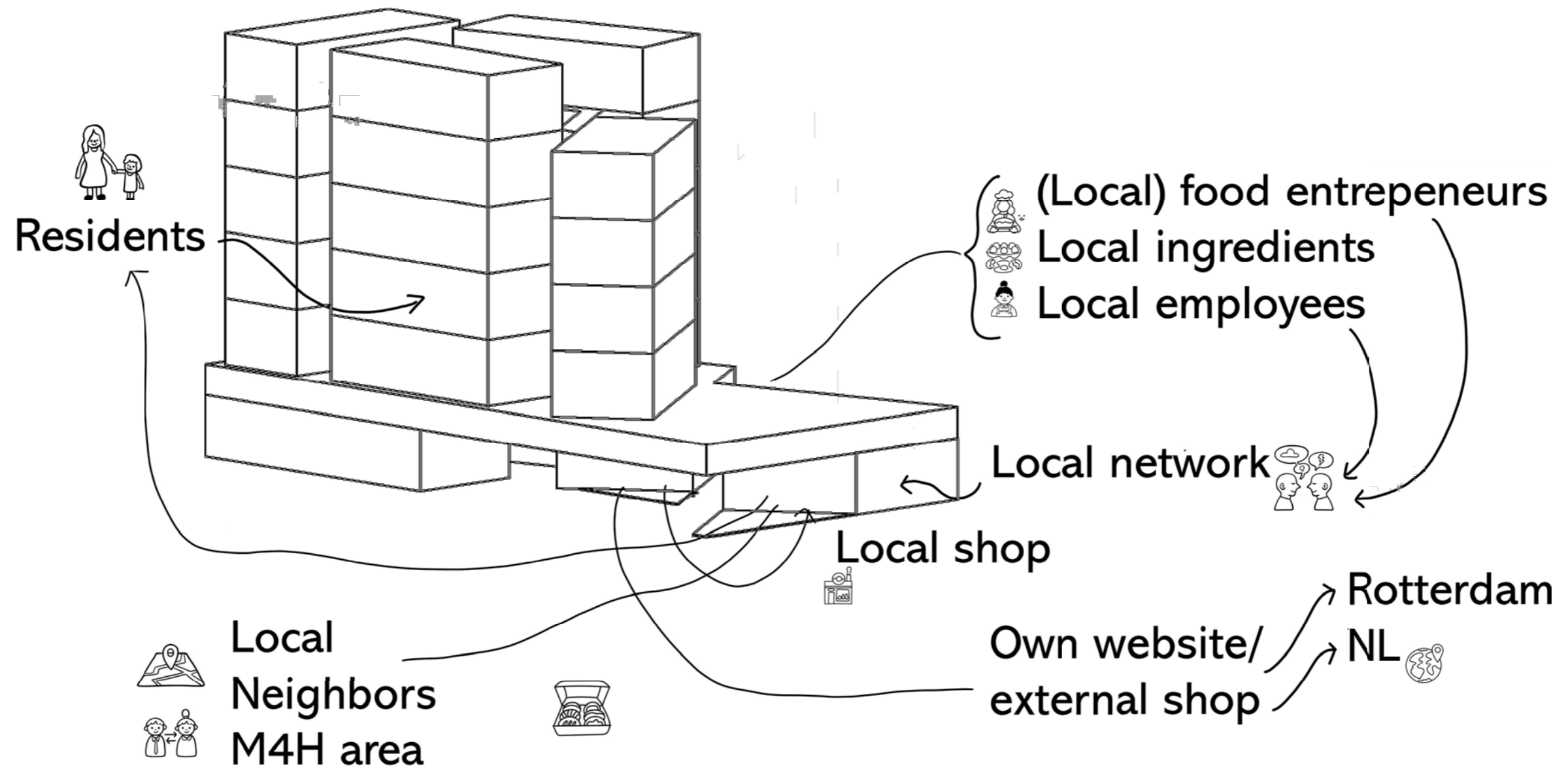
PERPETUAL WOOD CYCLE  
1ha = 3 TIMBER HOUSES  
+ A LOT OF FURNITURE



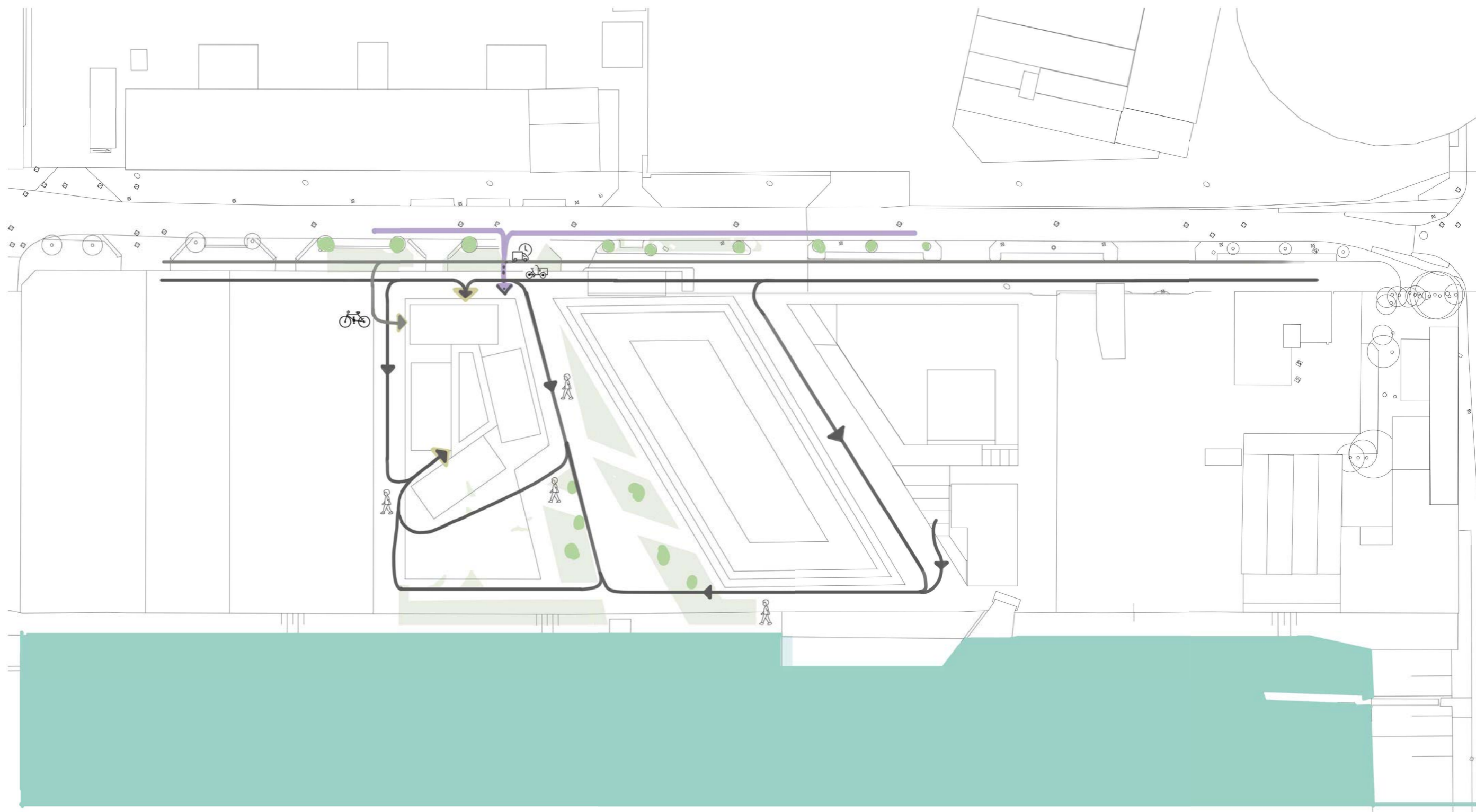
Load bearing structure



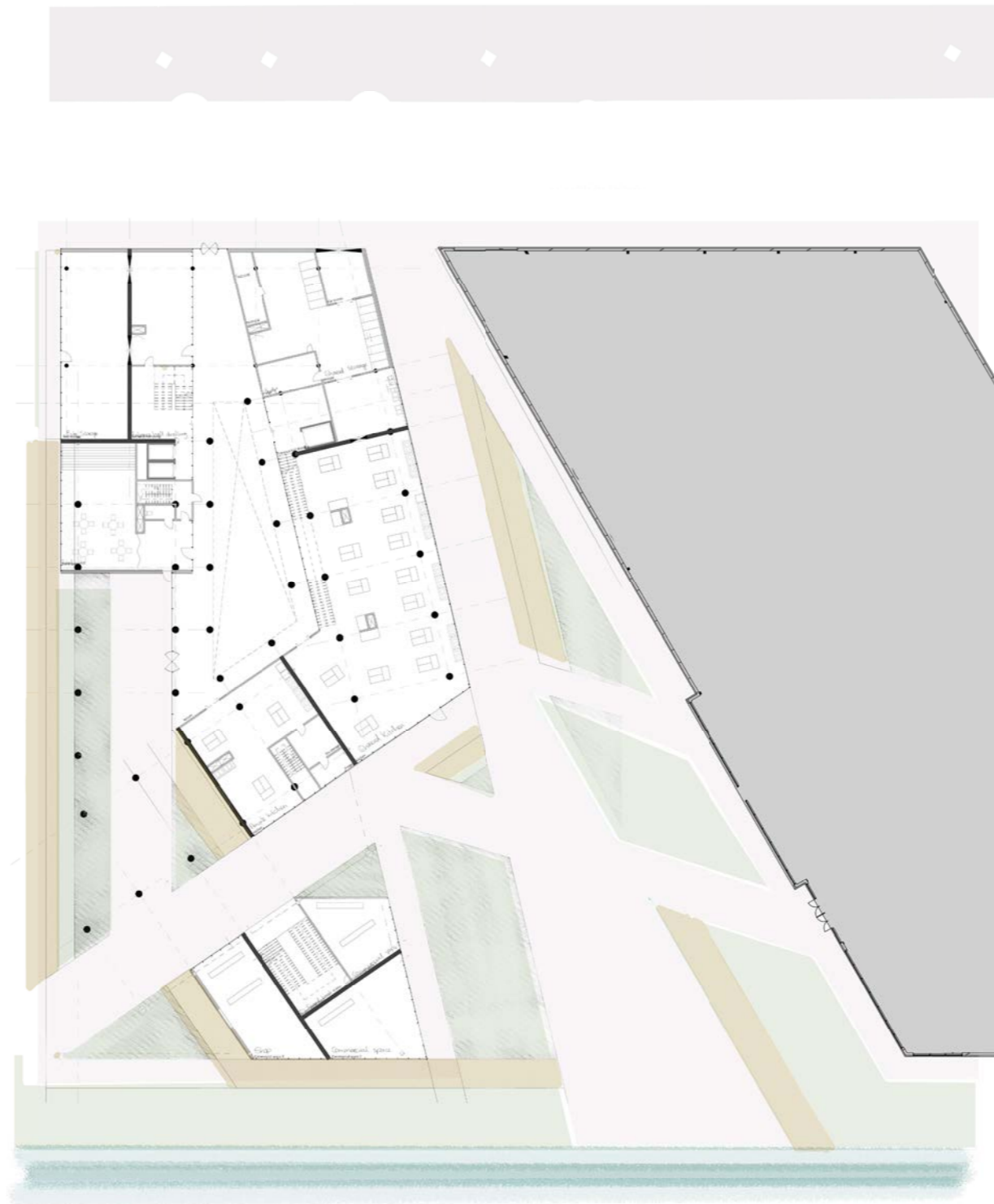
Load bearing structure



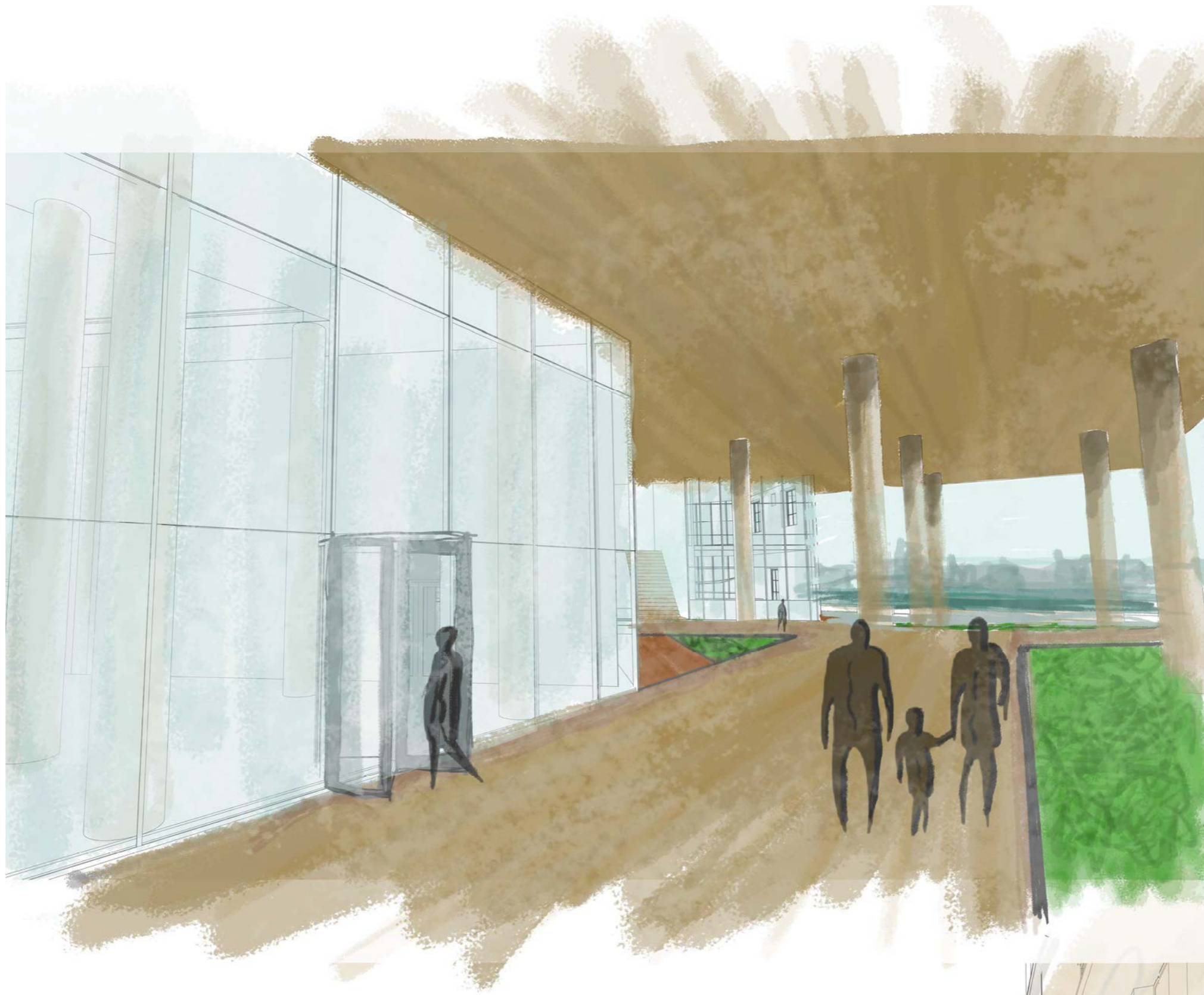
Impact of the programme



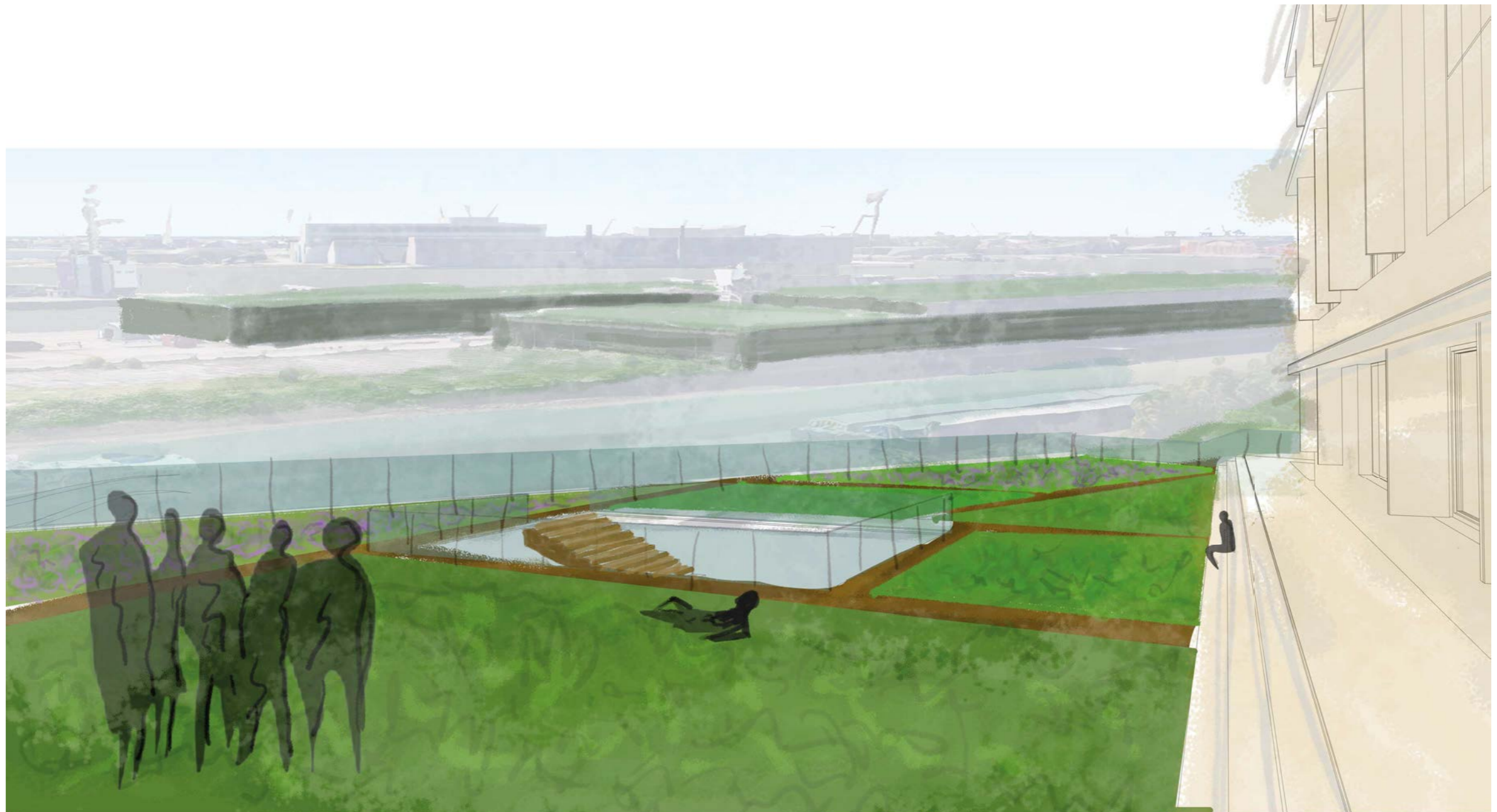
Green, water, access, traffic



Situation plan 1:500



Impression outside

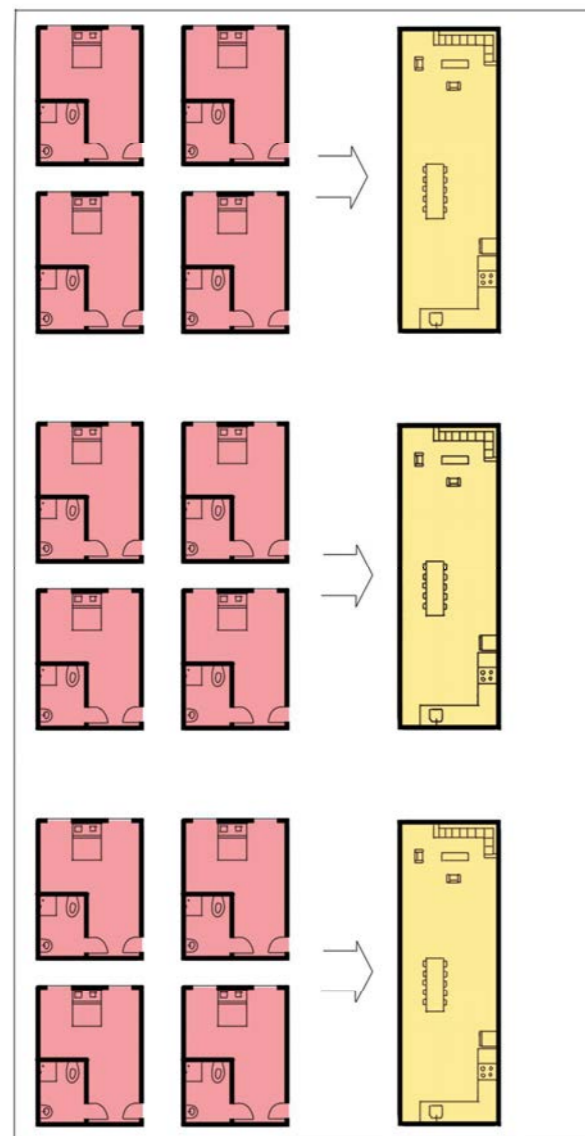


Impression public roof terrace 1

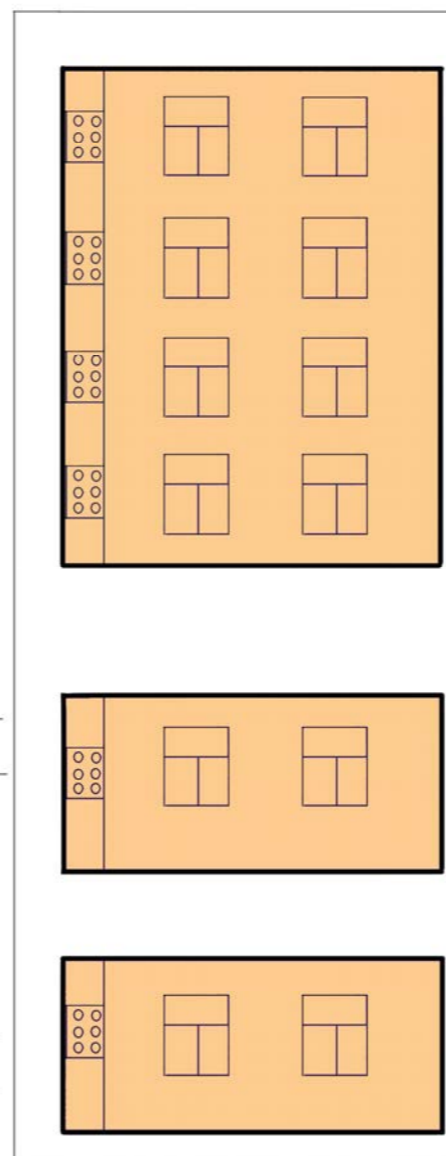


Impression public roof terrace 2

## Residential



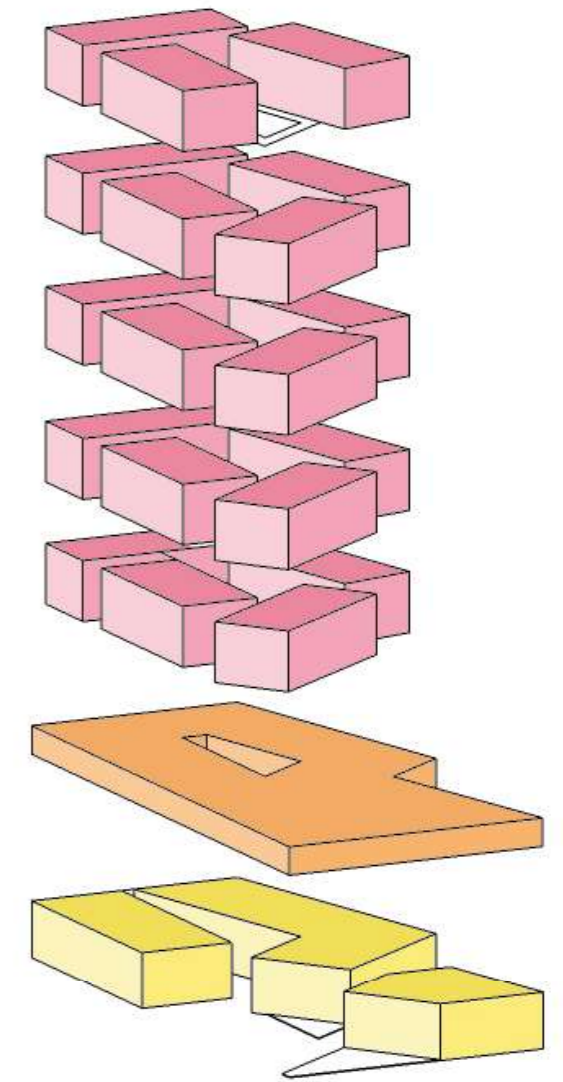
## Production



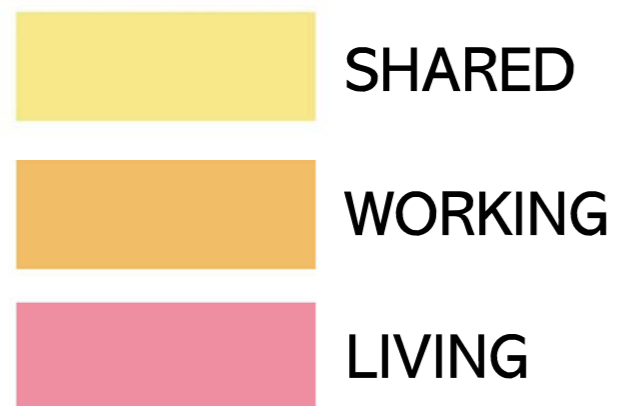
Facilities:  
eg. guestrooms,  
laundry,  
garden,  
gym

Shop  
selling products of the  
shared kitchen

Facilities:  
eg. meeting/presentation  
facilities, network



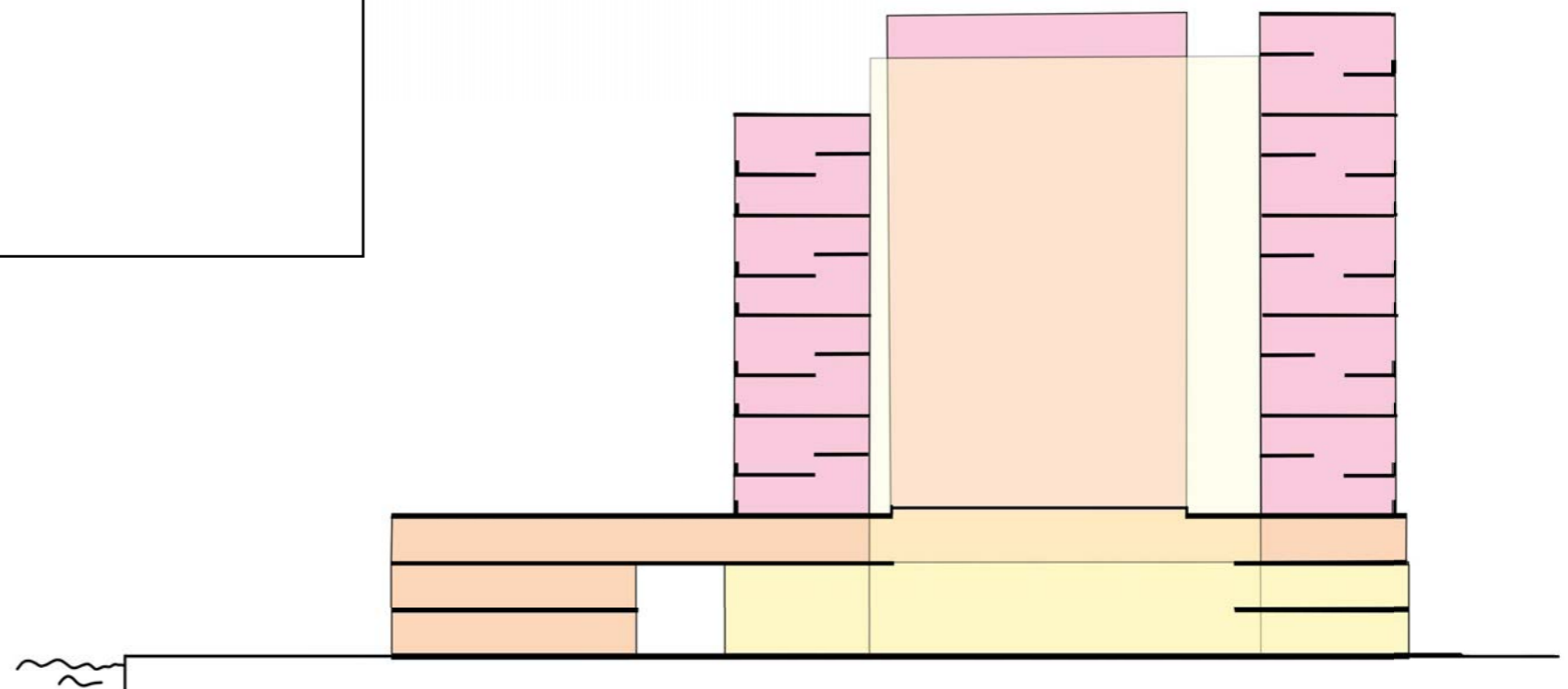
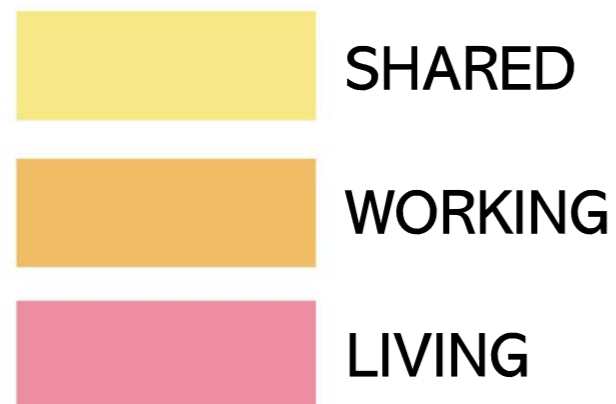
Levels of sharing



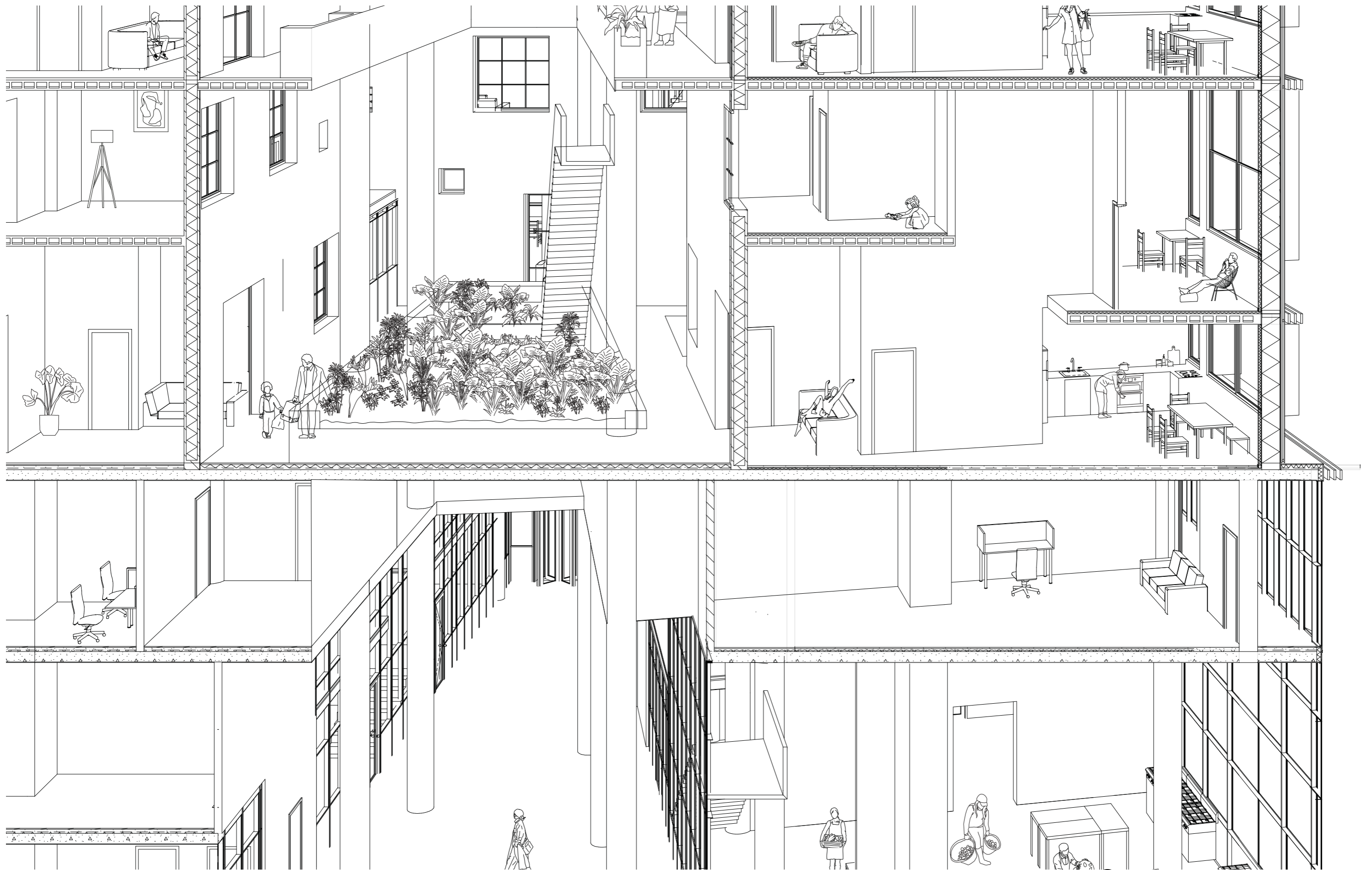
Shared (total: ~600m<sup>2</sup>)  
 atrium: 300m<sup>2</sup>  
 event space: 100m<sup>2</sup>  
 commercial space: 175m<sup>2</sup>

Working (total: ~2000m<sup>2</sup>)  
 Industrial kitchen: 625m<sup>2</sup>  
 Office: 760m<sup>2</sup>  
 Break/ chill area: 400m<sup>2</sup>  
 Traffic space: 240m<sup>2</sup>

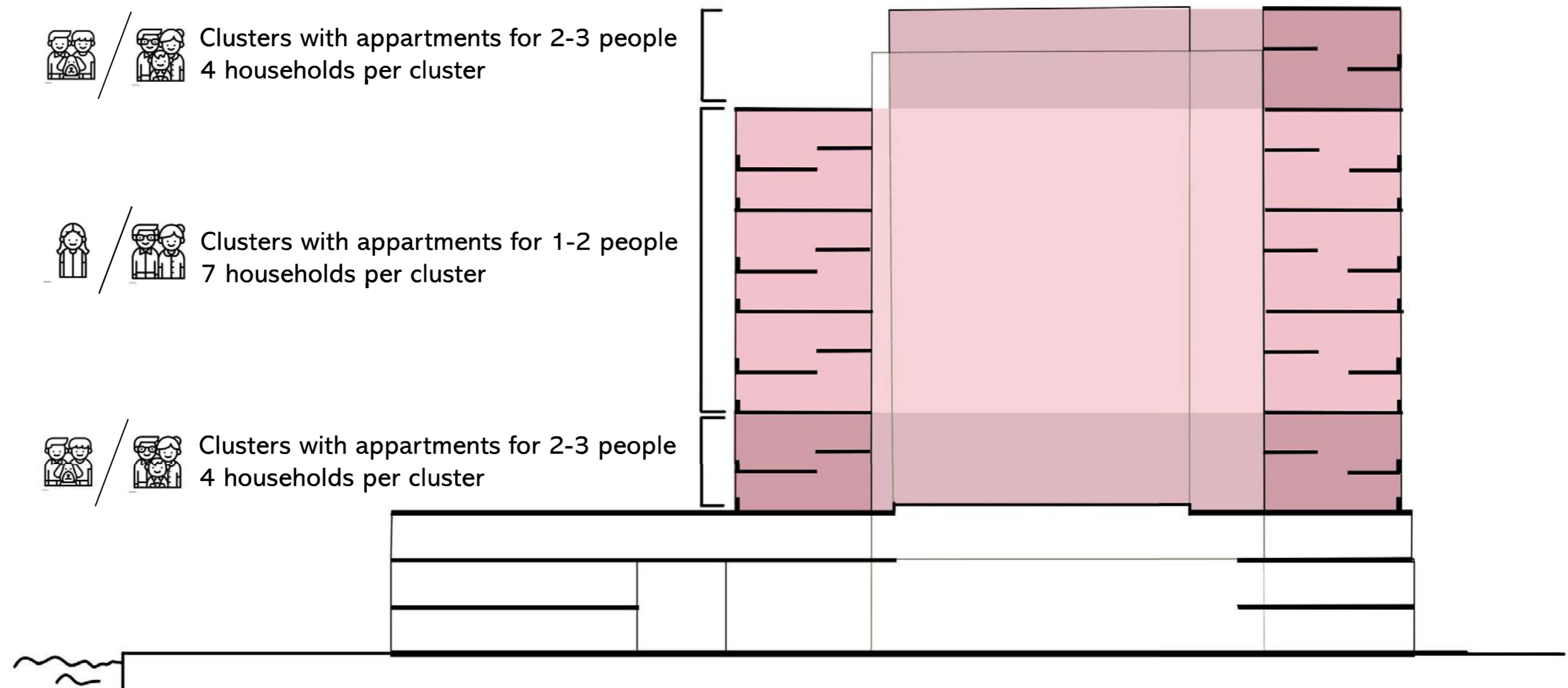
Living (total: ~6600m<sup>2</sup>)  
 Shared functions (laundry/guestrooms/trash etc): 250m<sup>2</sup>  
 Storage: 475m<sup>2</sup>  
 Collective living rooms: 950m<sup>2</sup>  
 Private apartments/rooms: 4150m<sup>2</sup>  
 Traffic space  
 atrium: 625m<sup>2</sup>  
 other: 125m<sup>2</sup>



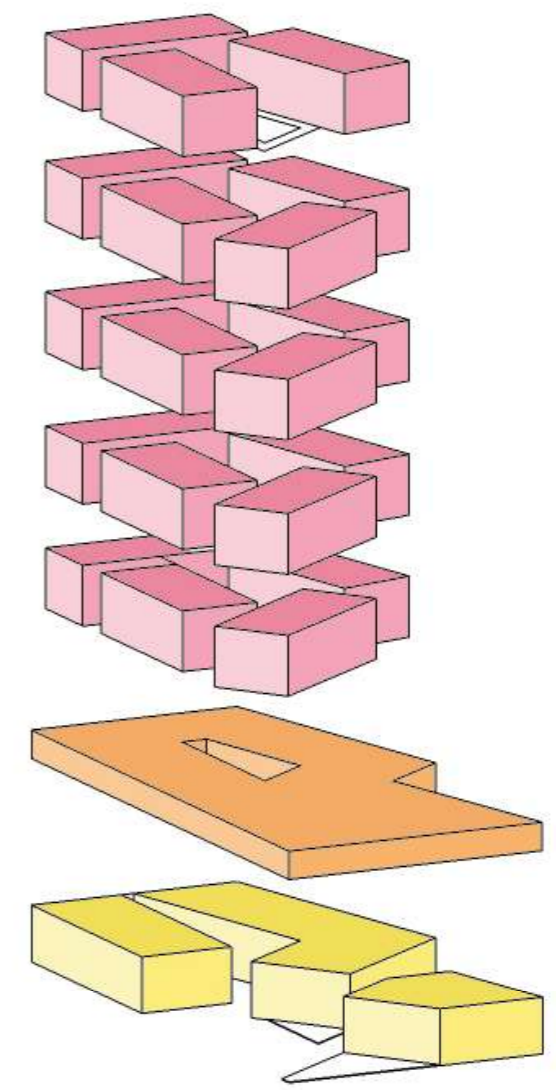
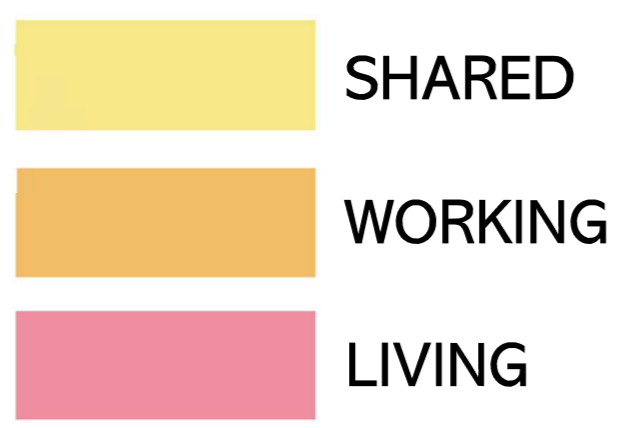
Programme



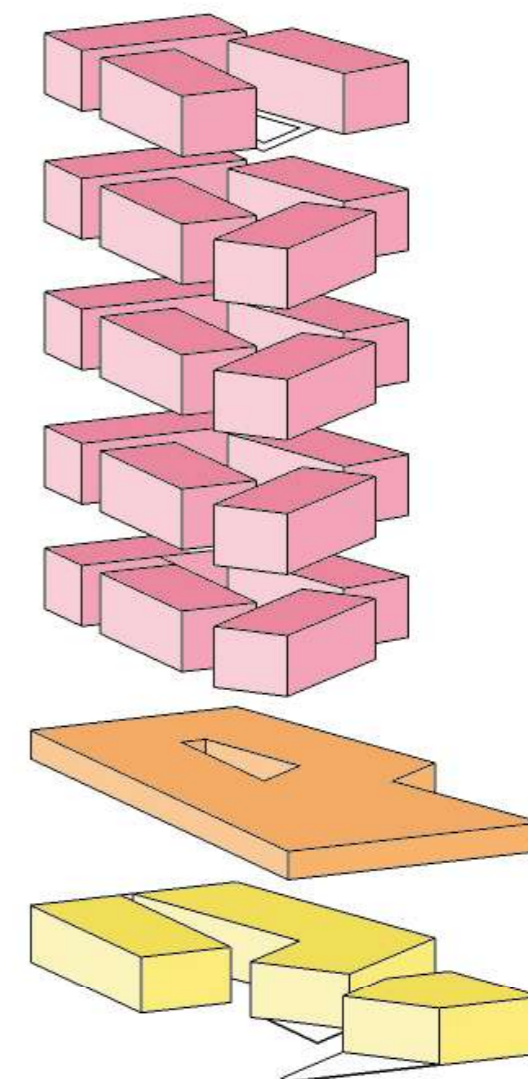
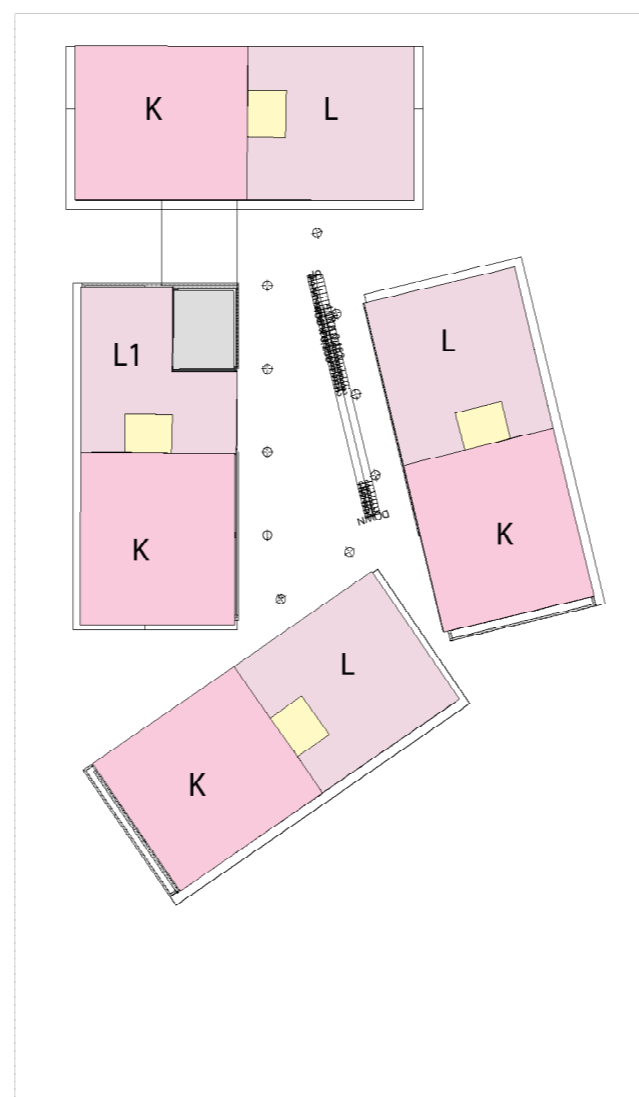
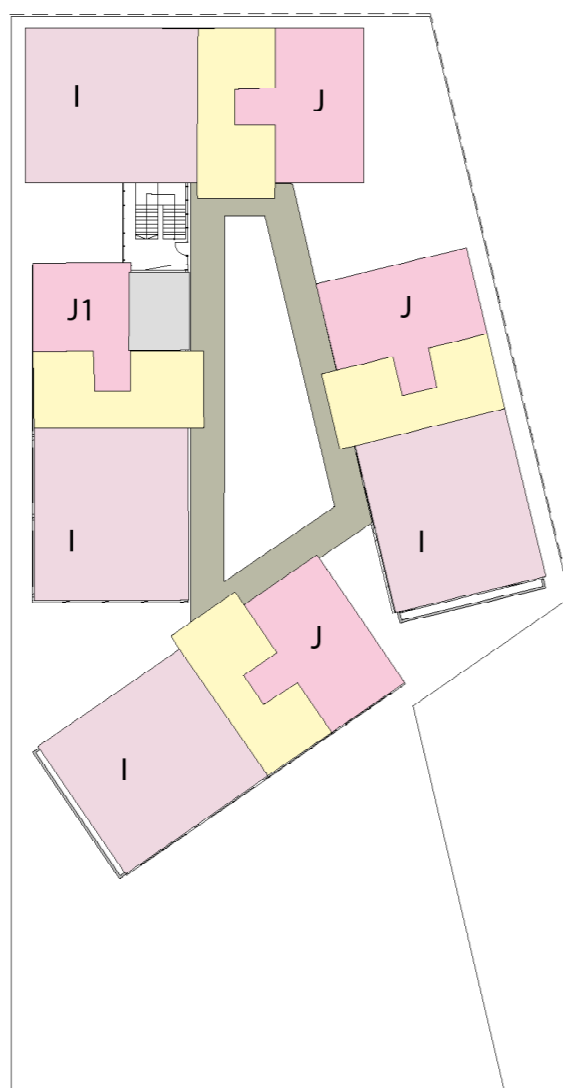
Section over atrium



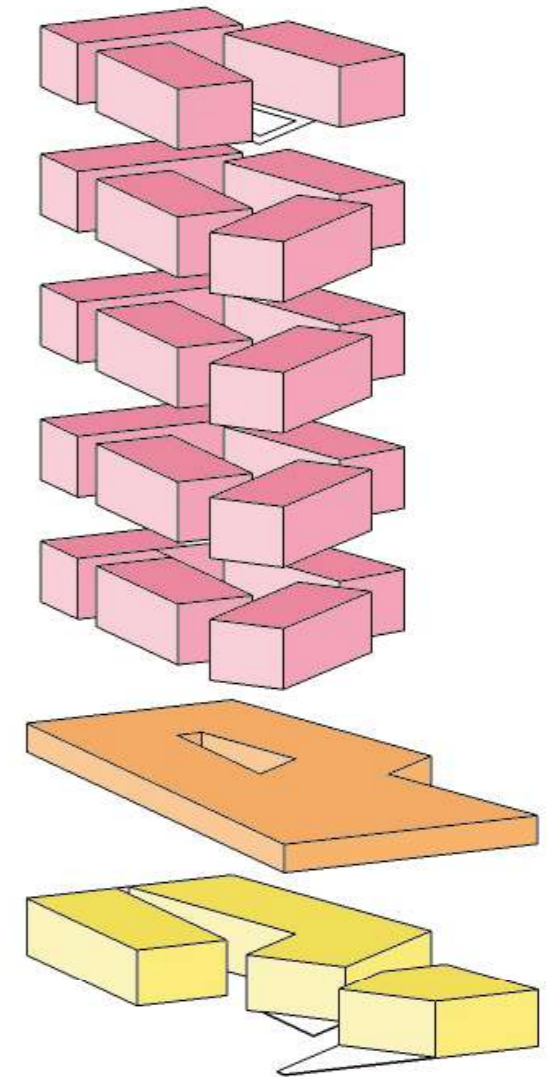
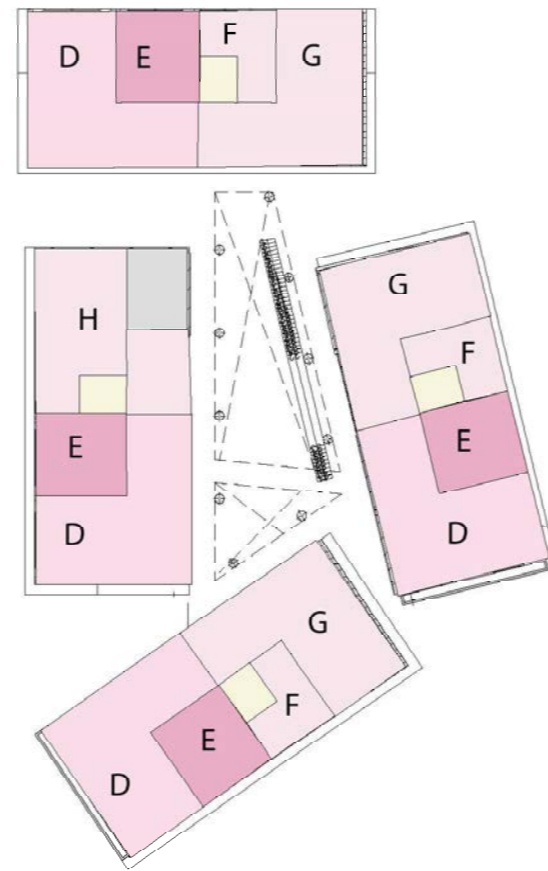
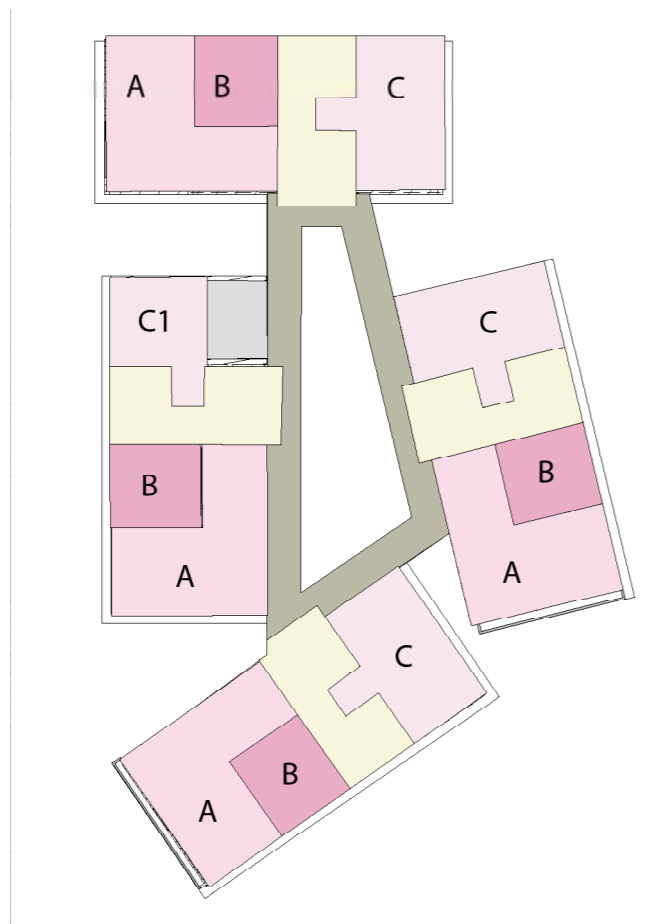
Types



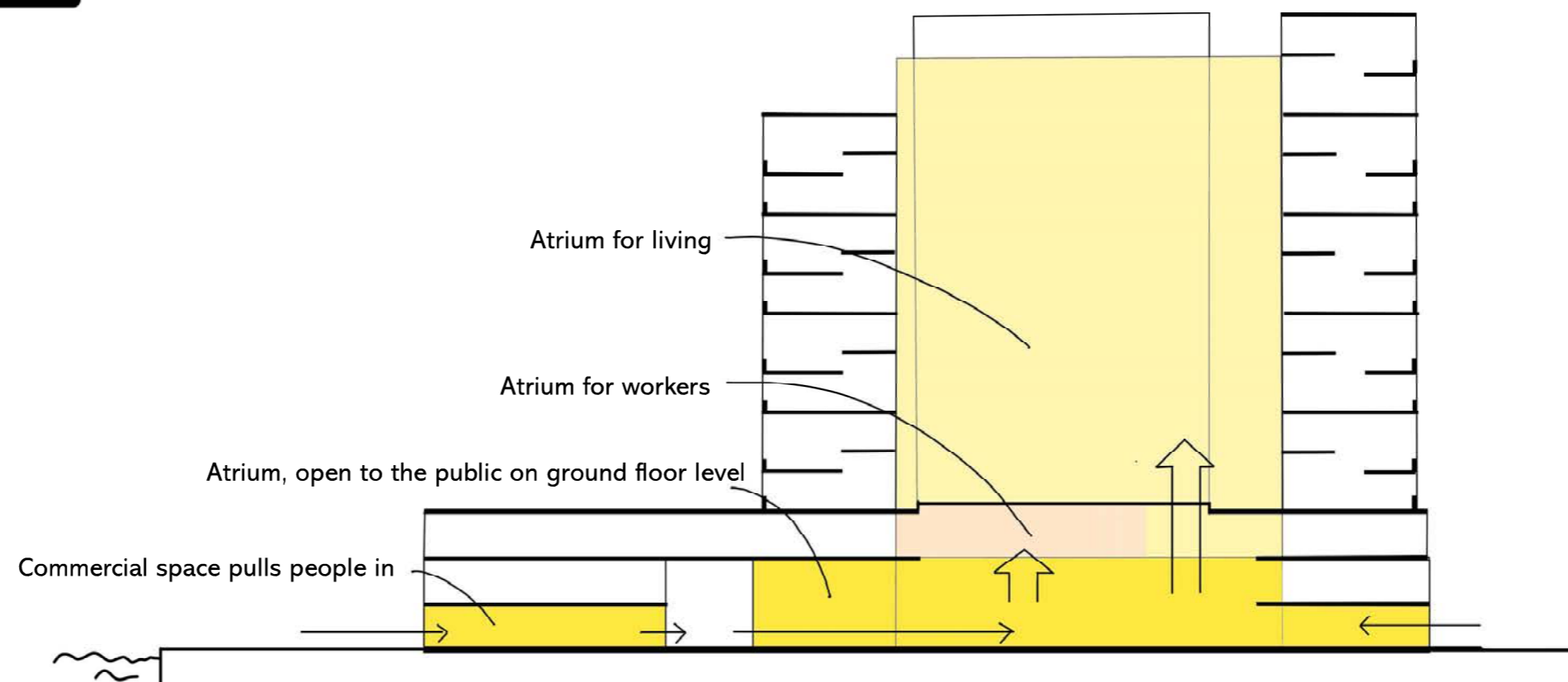
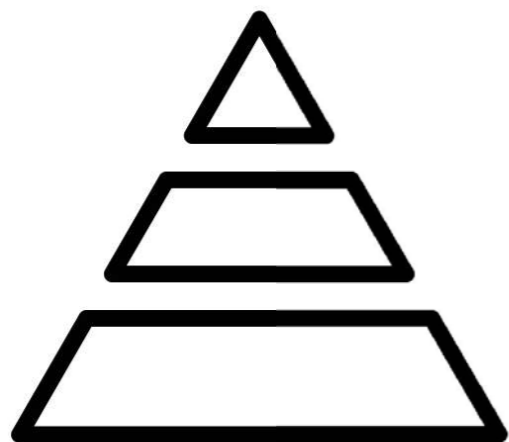
Floor 0-1 levels of sharing



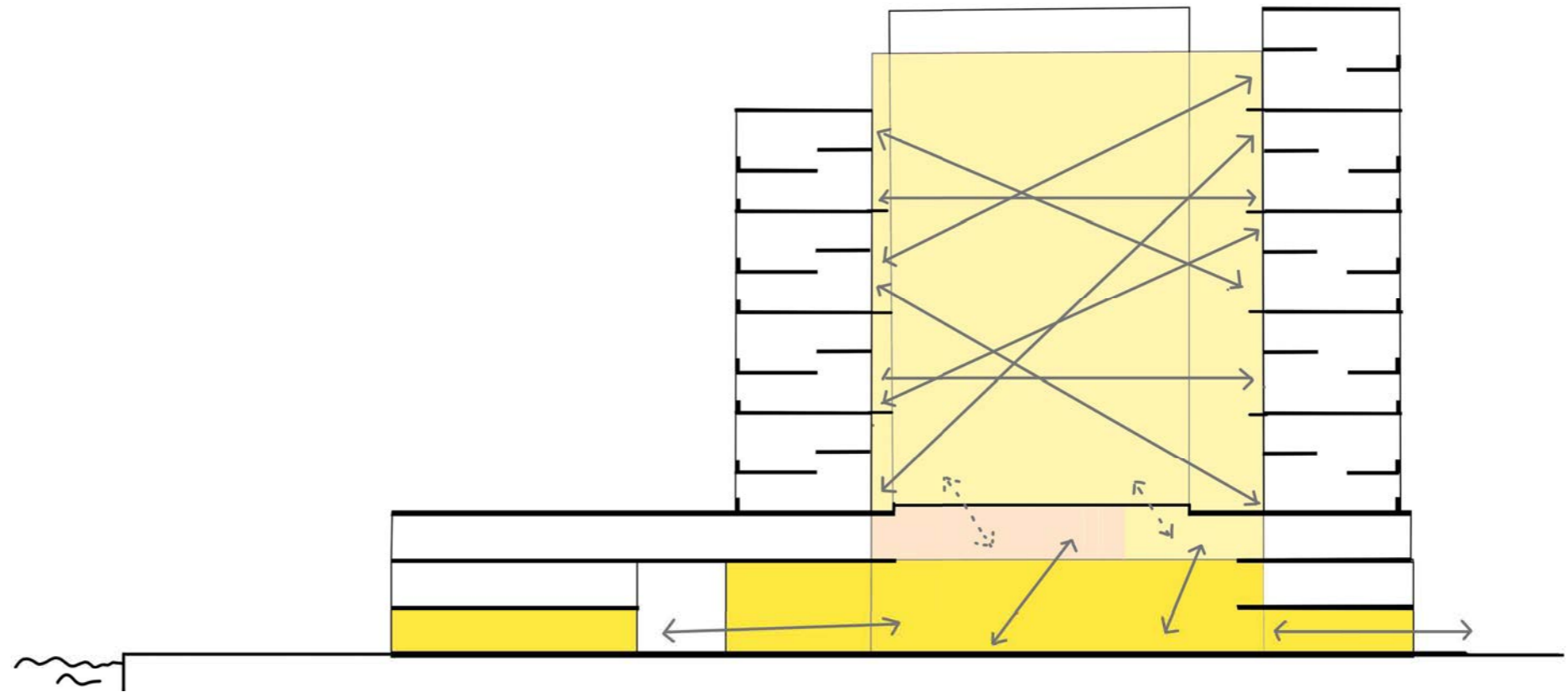
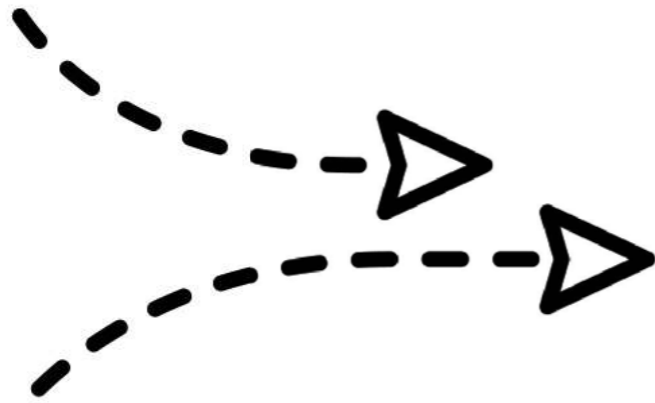
Floor 2-3 levels of sharing



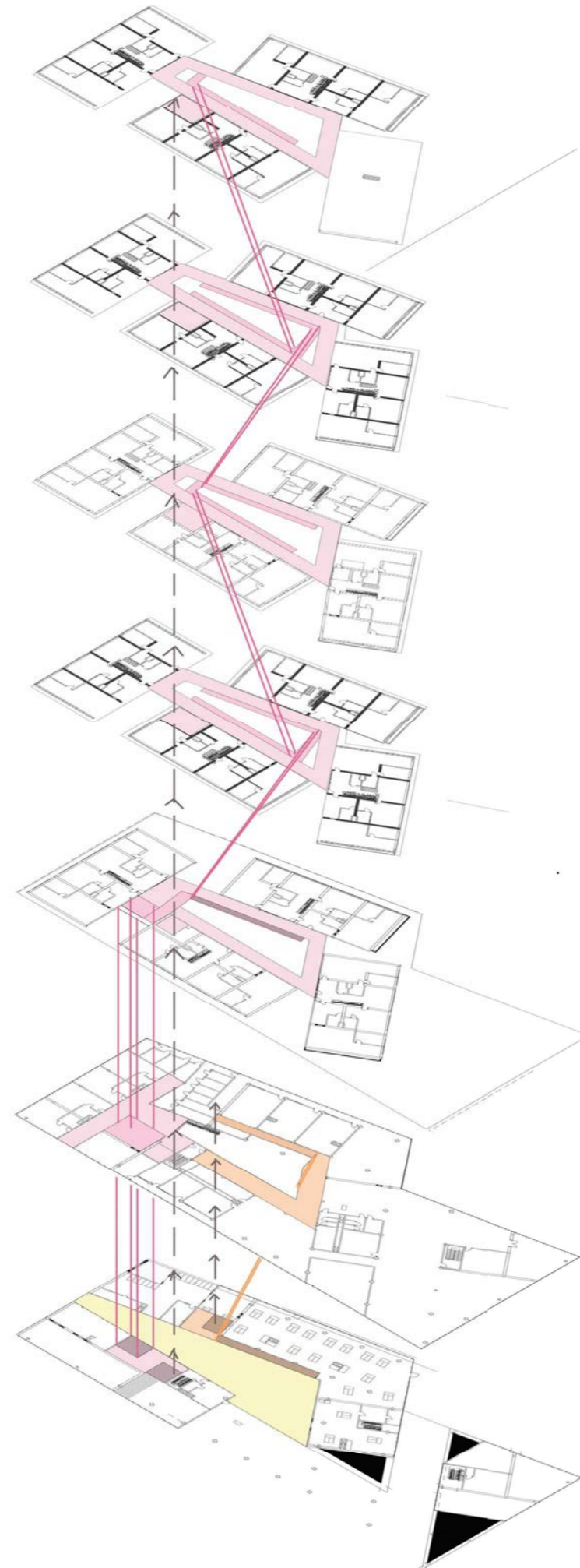
Floor 6-7 levels of sharing



Atrium



Atrium connctions



- SHARED
- WORKING
- LIVING

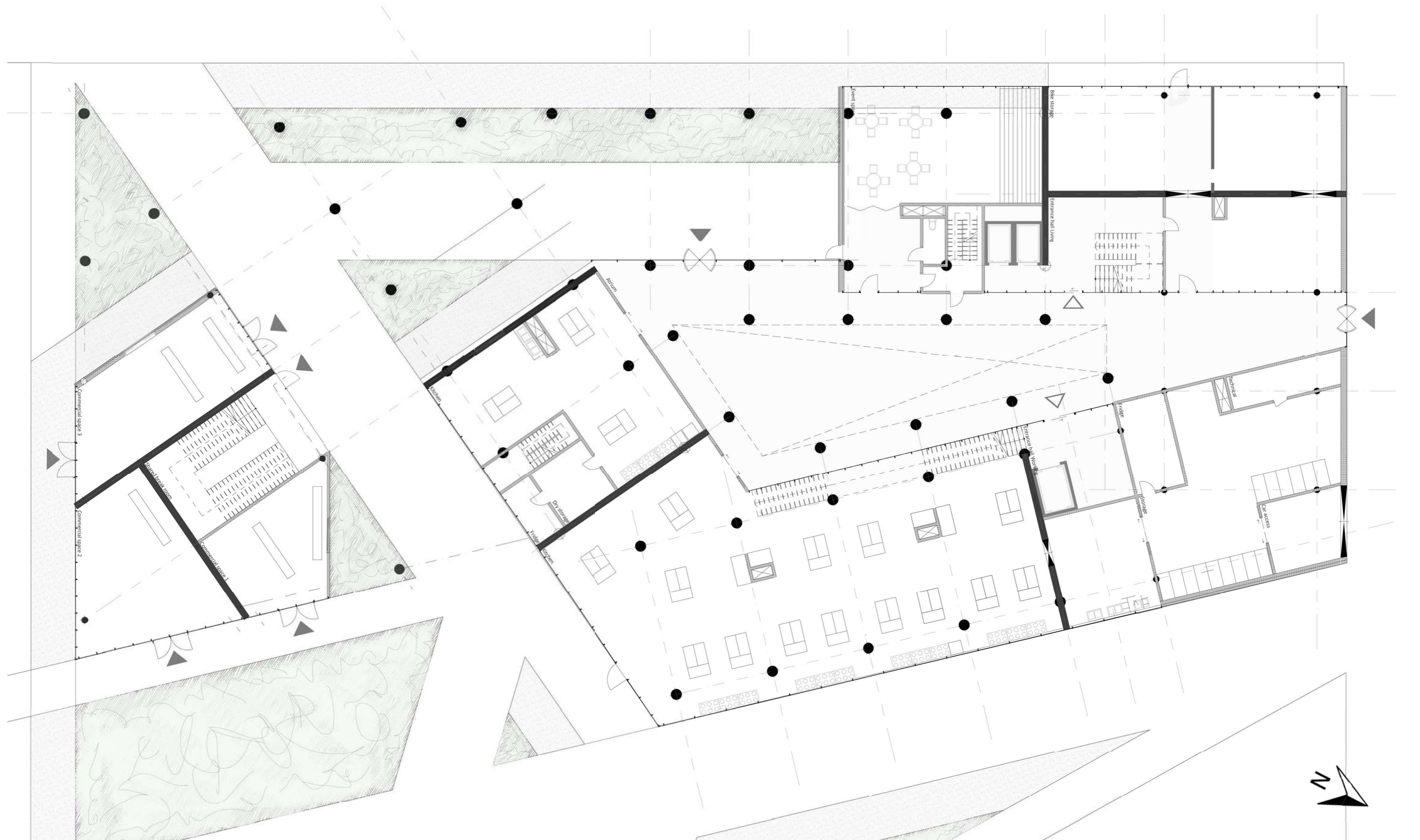
Circulation



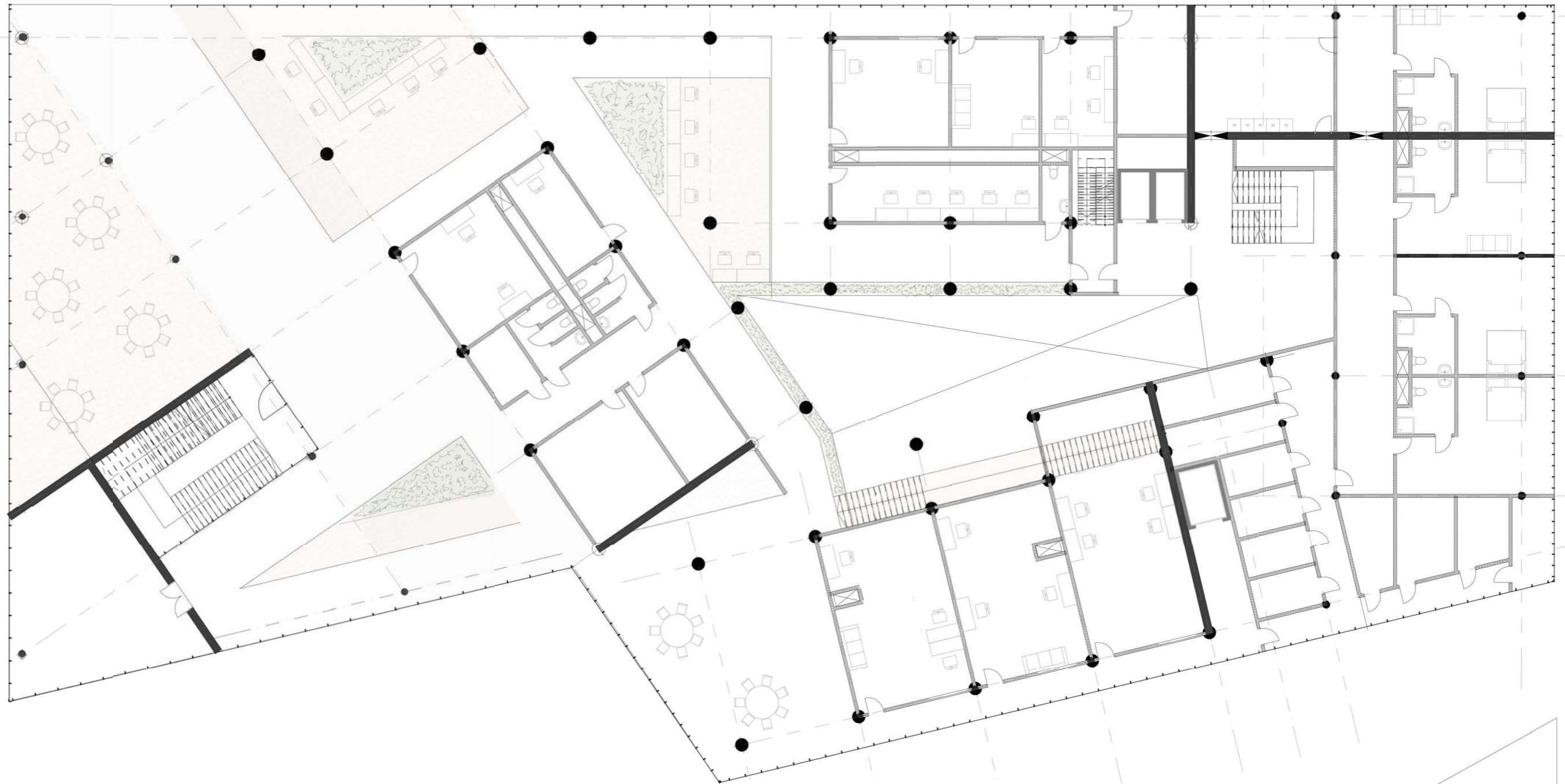
Atrium ground floor impression



Atrium sixth floor impression



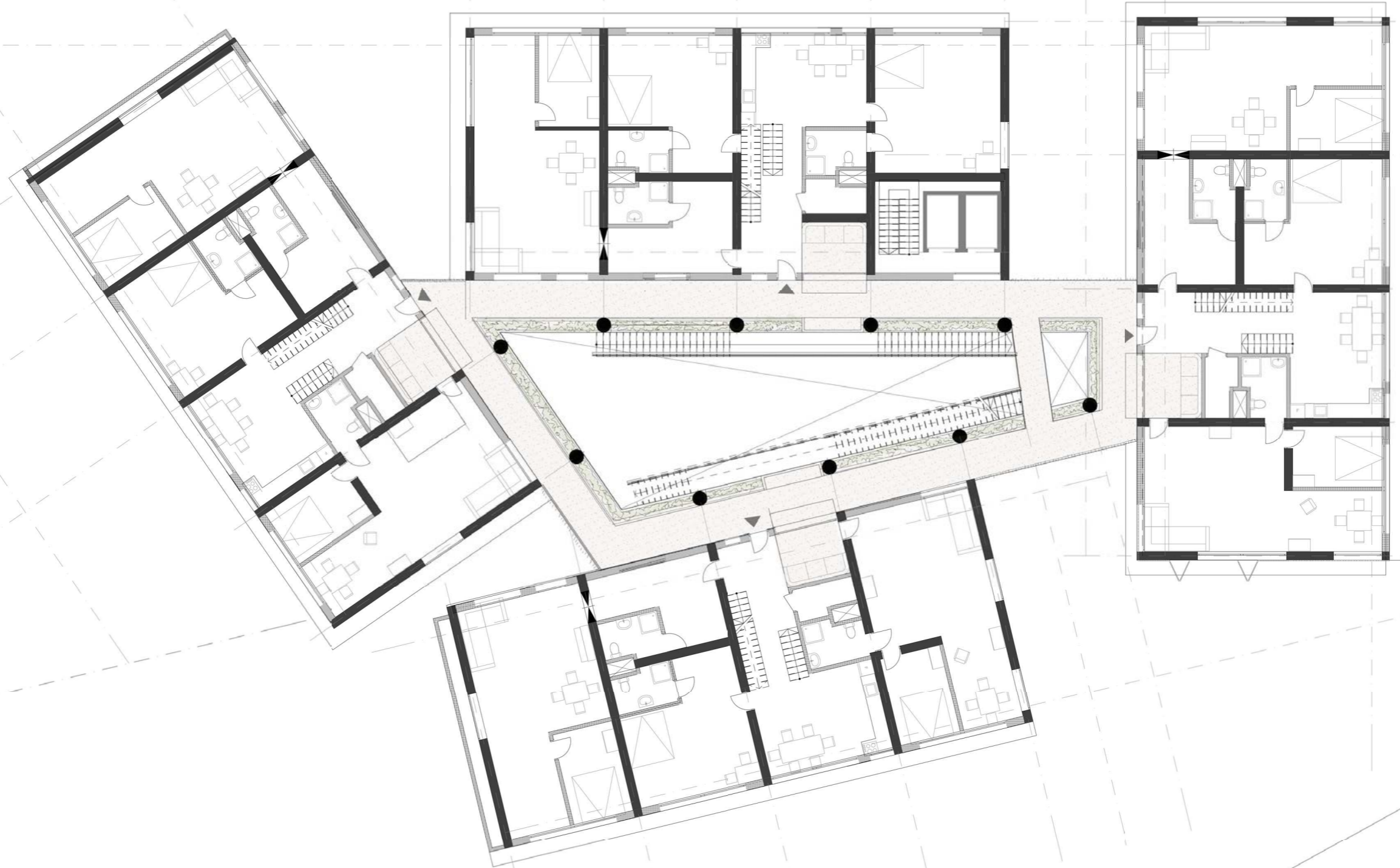
Plan ground floor 1:200



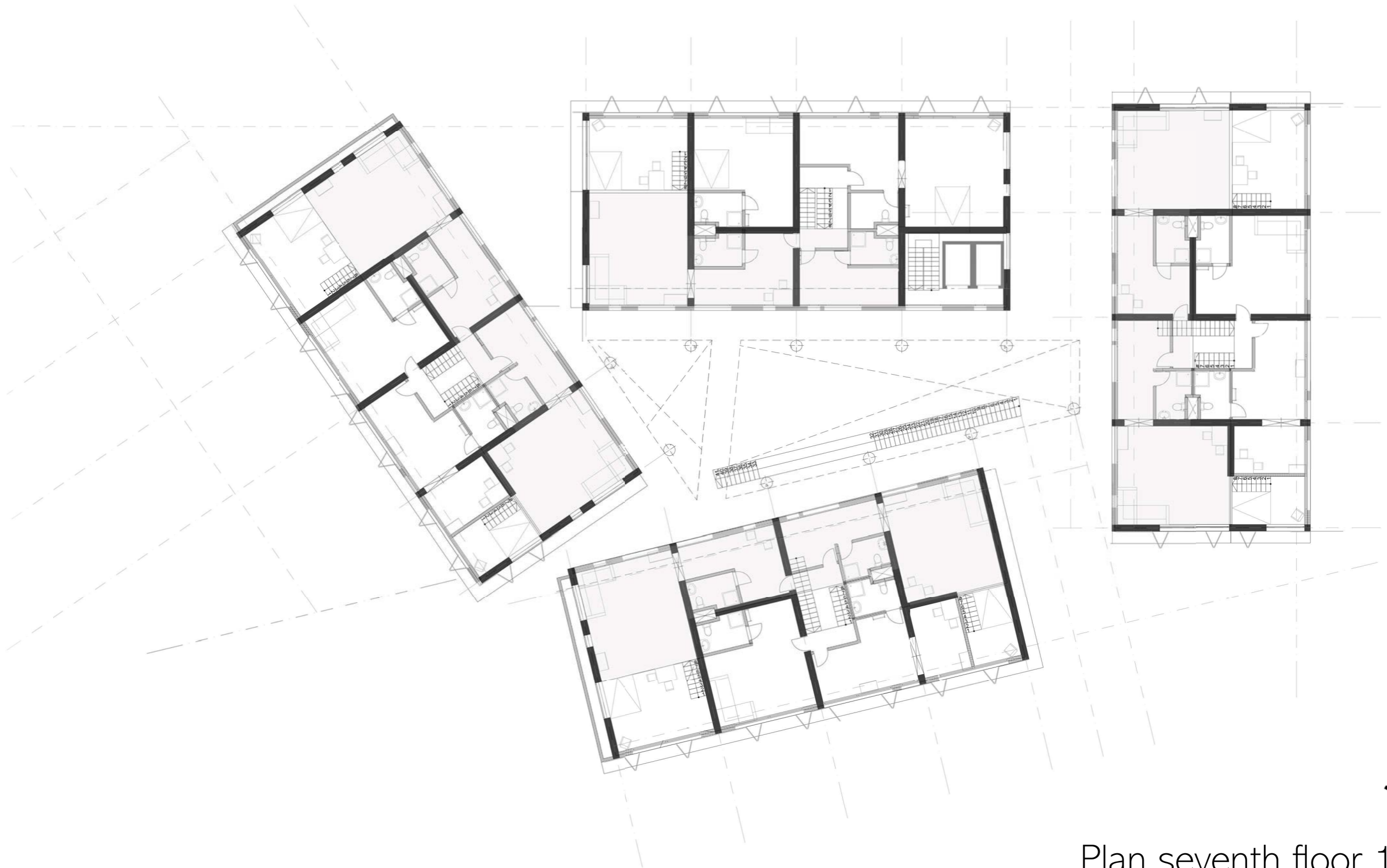
Plan first floor 1:200



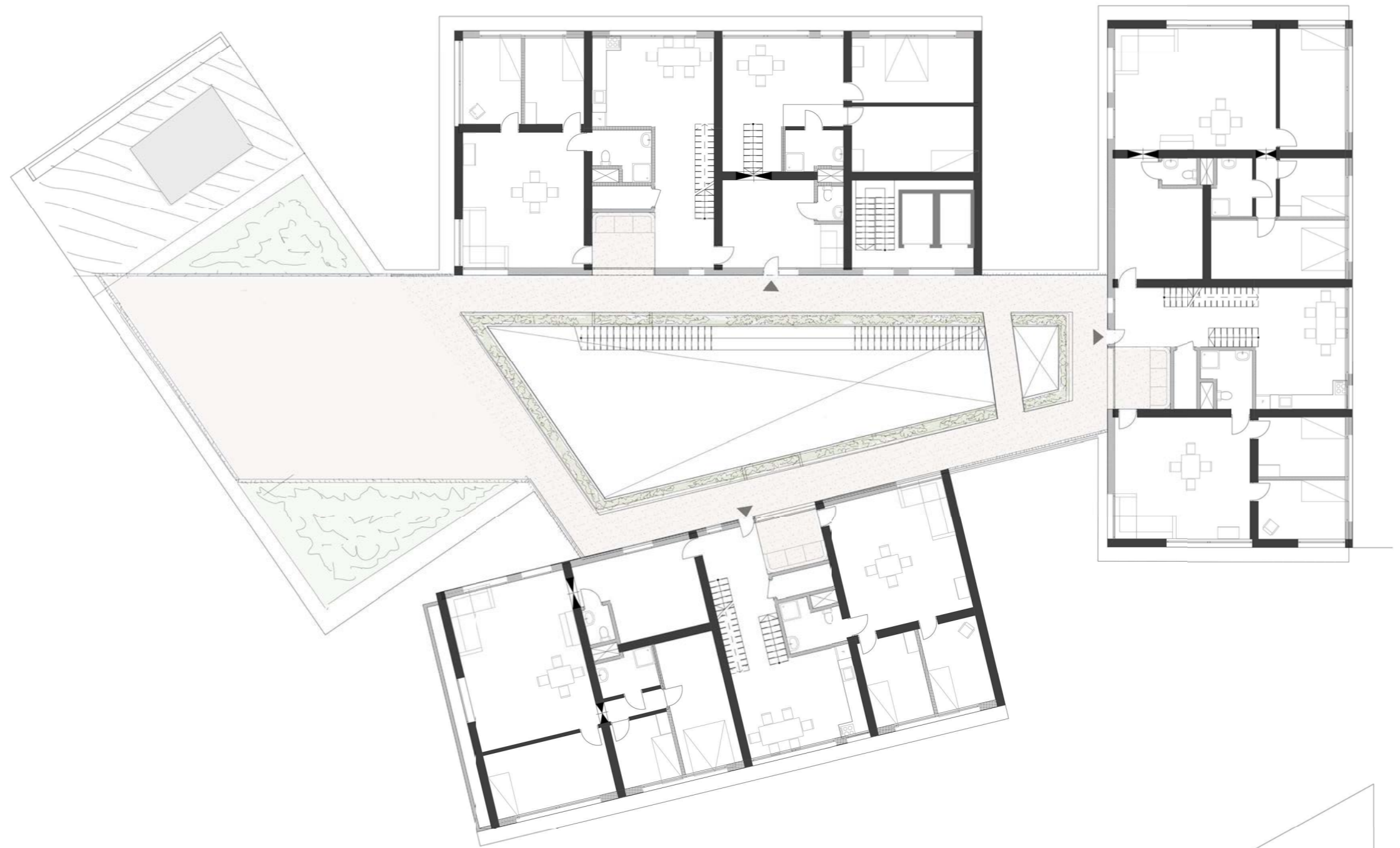
Plan second floor 1:200



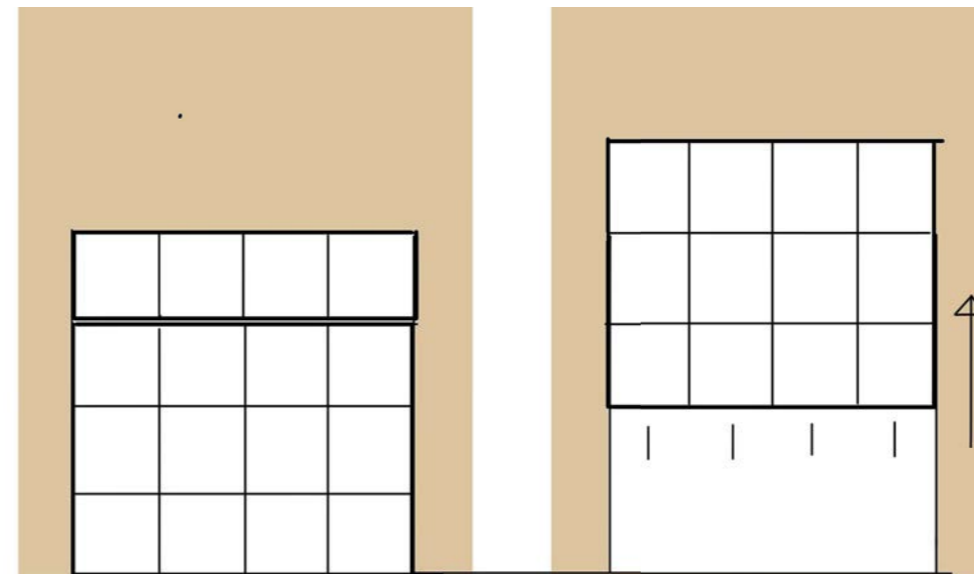
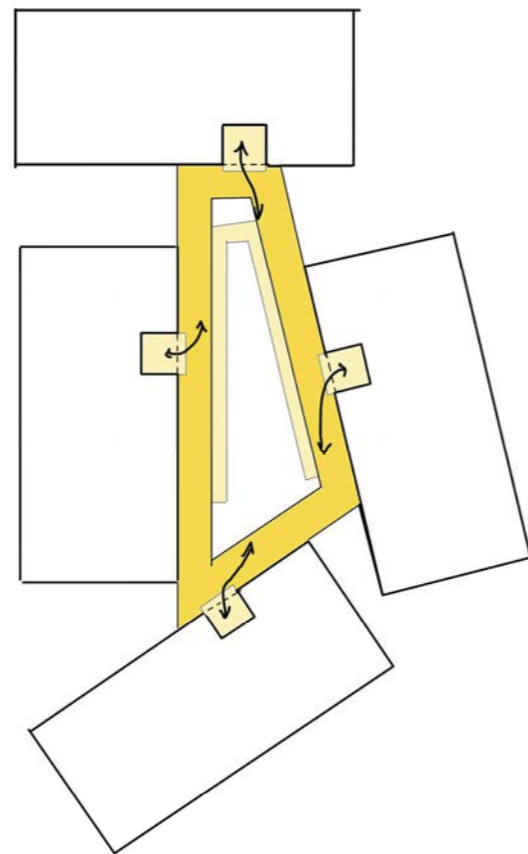
Plan sixth floor 1:200



Plan seventh floor 1:200



Plan tenth floor 1:200

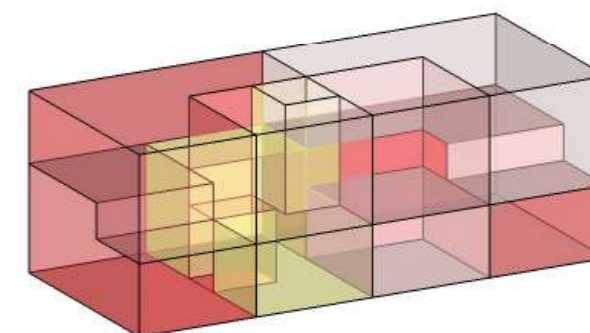
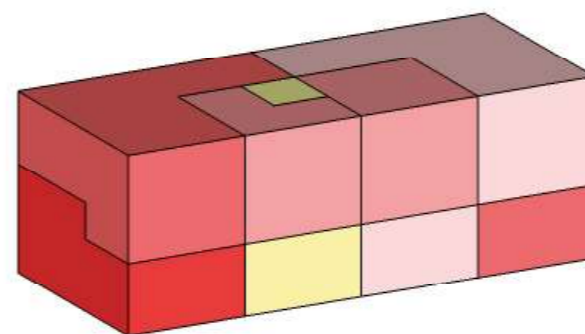
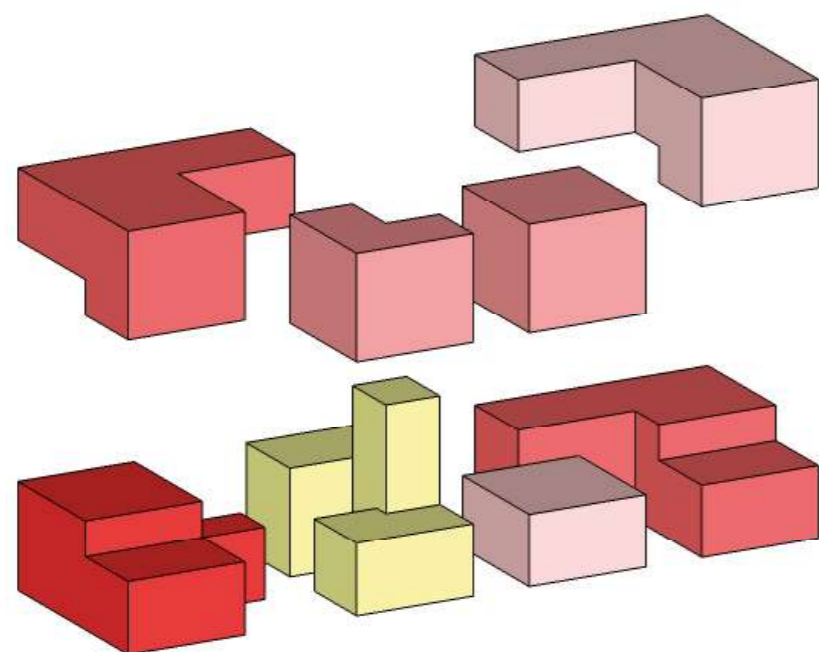


opening facade to atrium

Connection dwellings - atrium



Atrium gallery impressions



3D configuration apartments



Model cluster lower floor



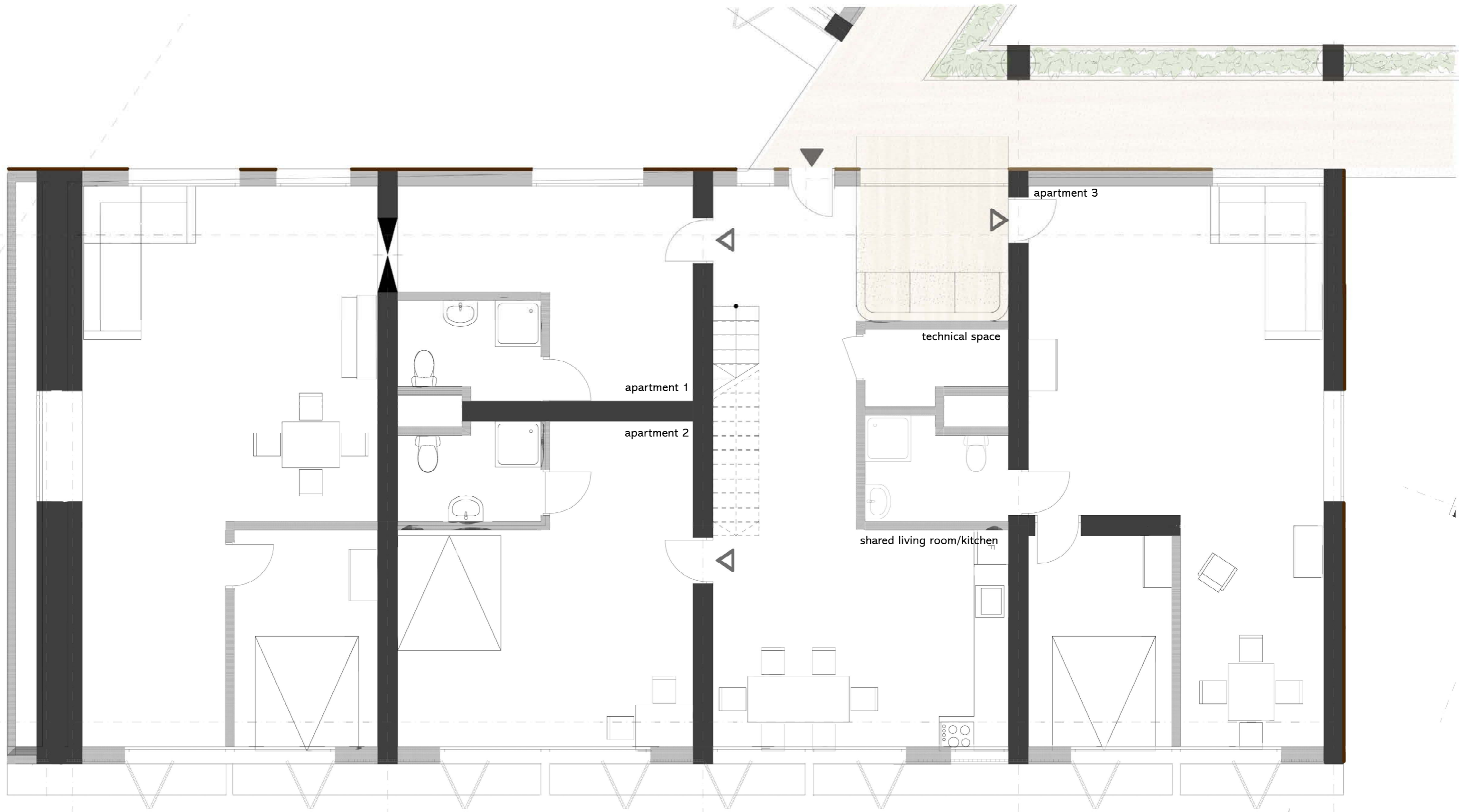
Model cluster upper floor



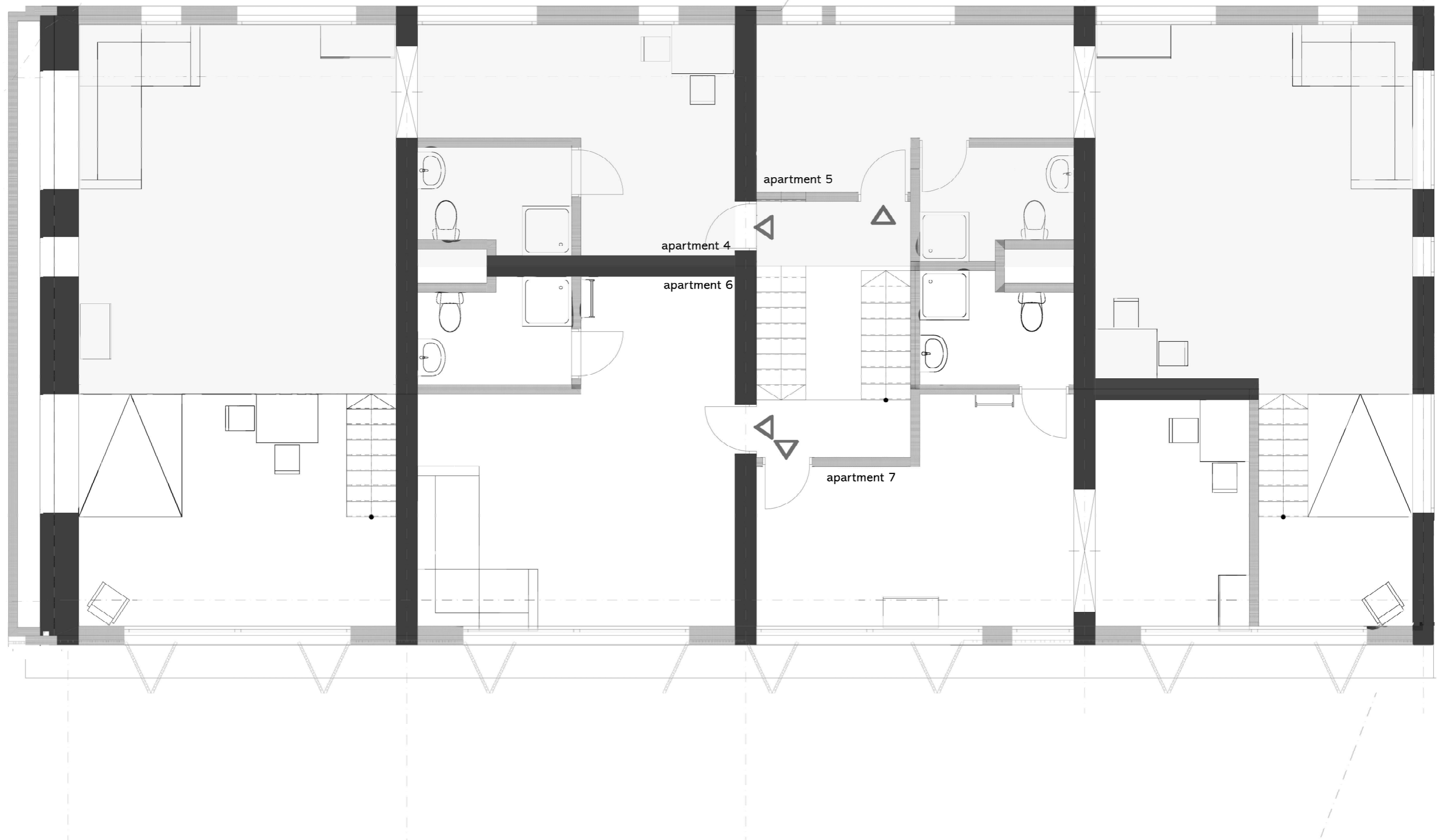
Model cluster exploded view



Impression shared living room



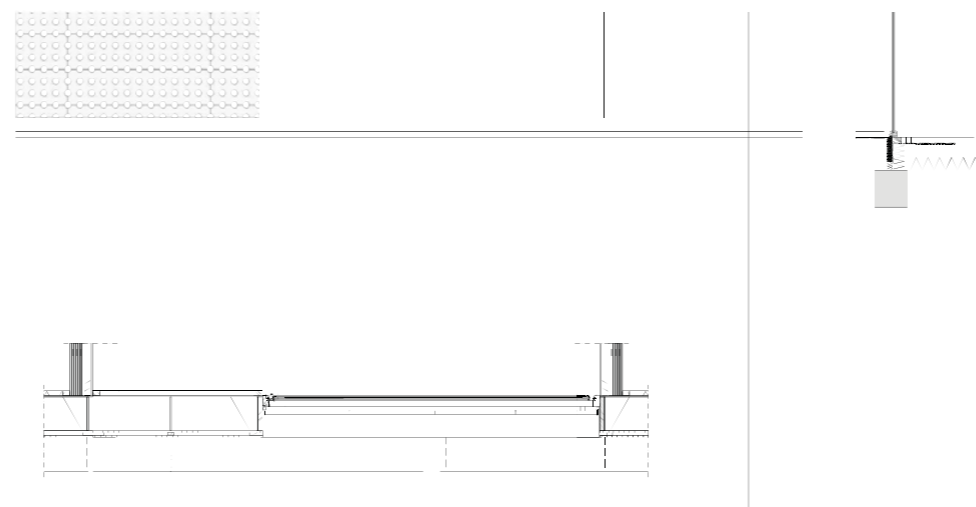
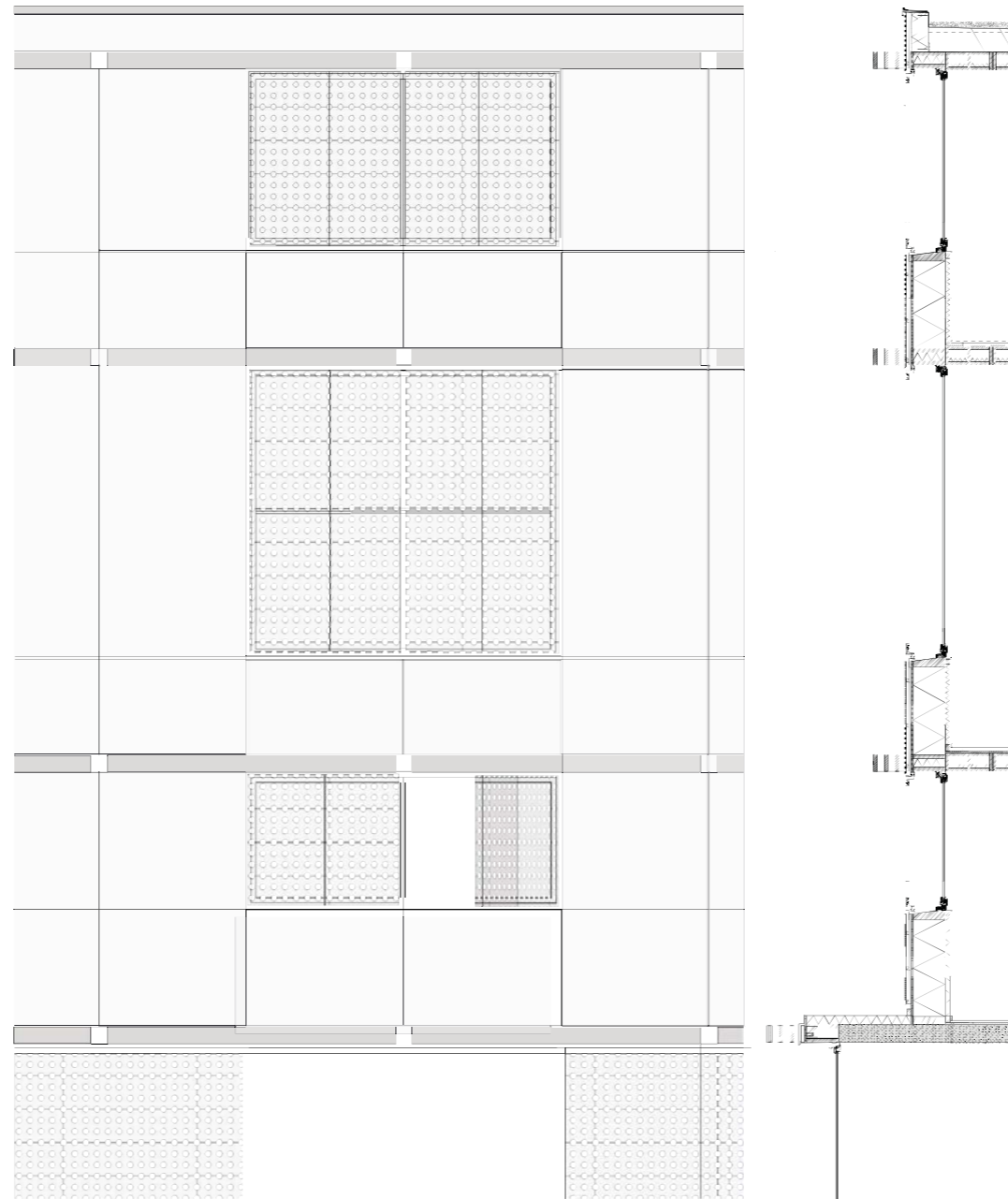
Plan cluster 1:50, 6th floor  
(rescaled 80% to fit page)



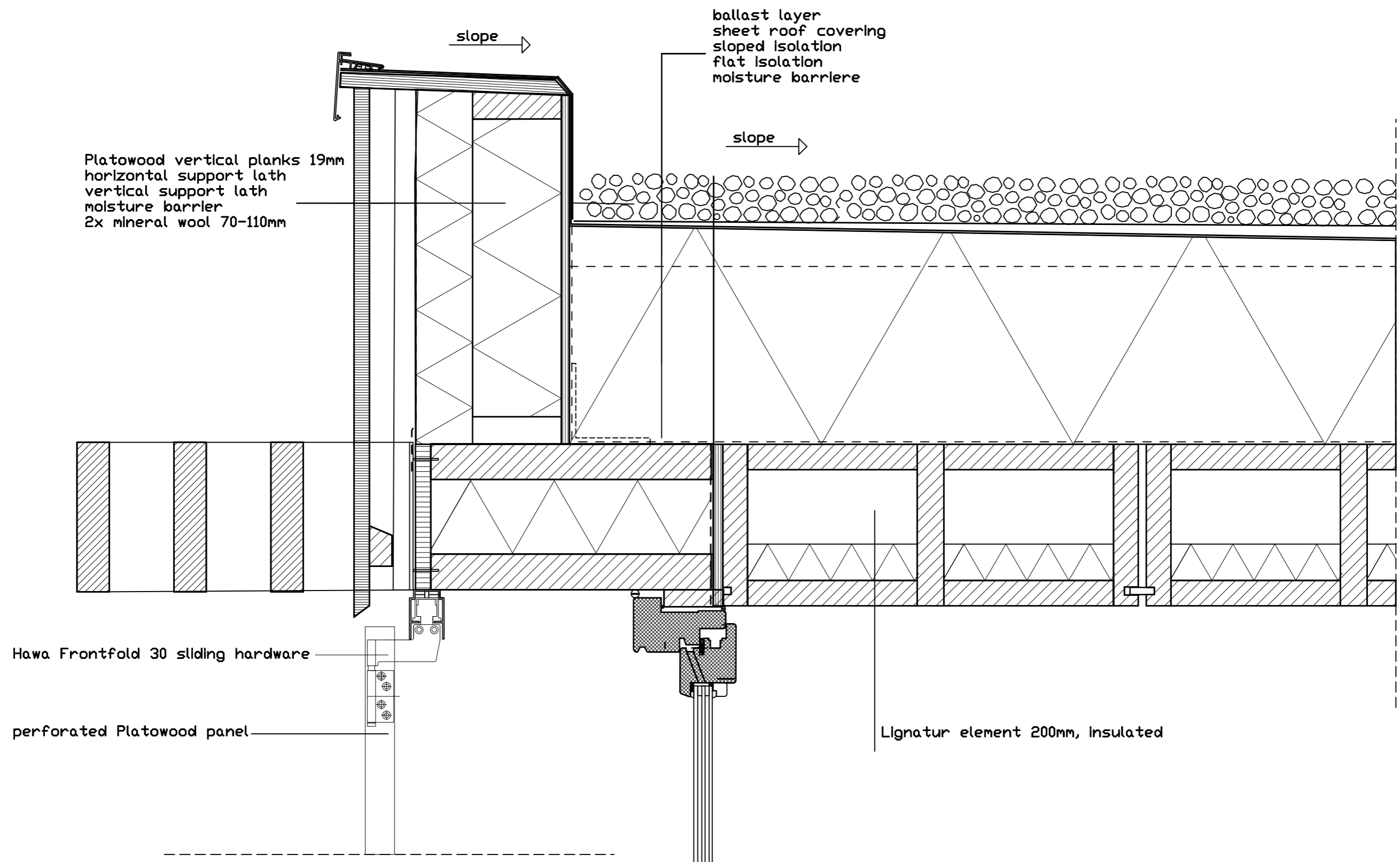
Plan cluster 1:50, 7th floor  
(rescaled 80% to fit page)

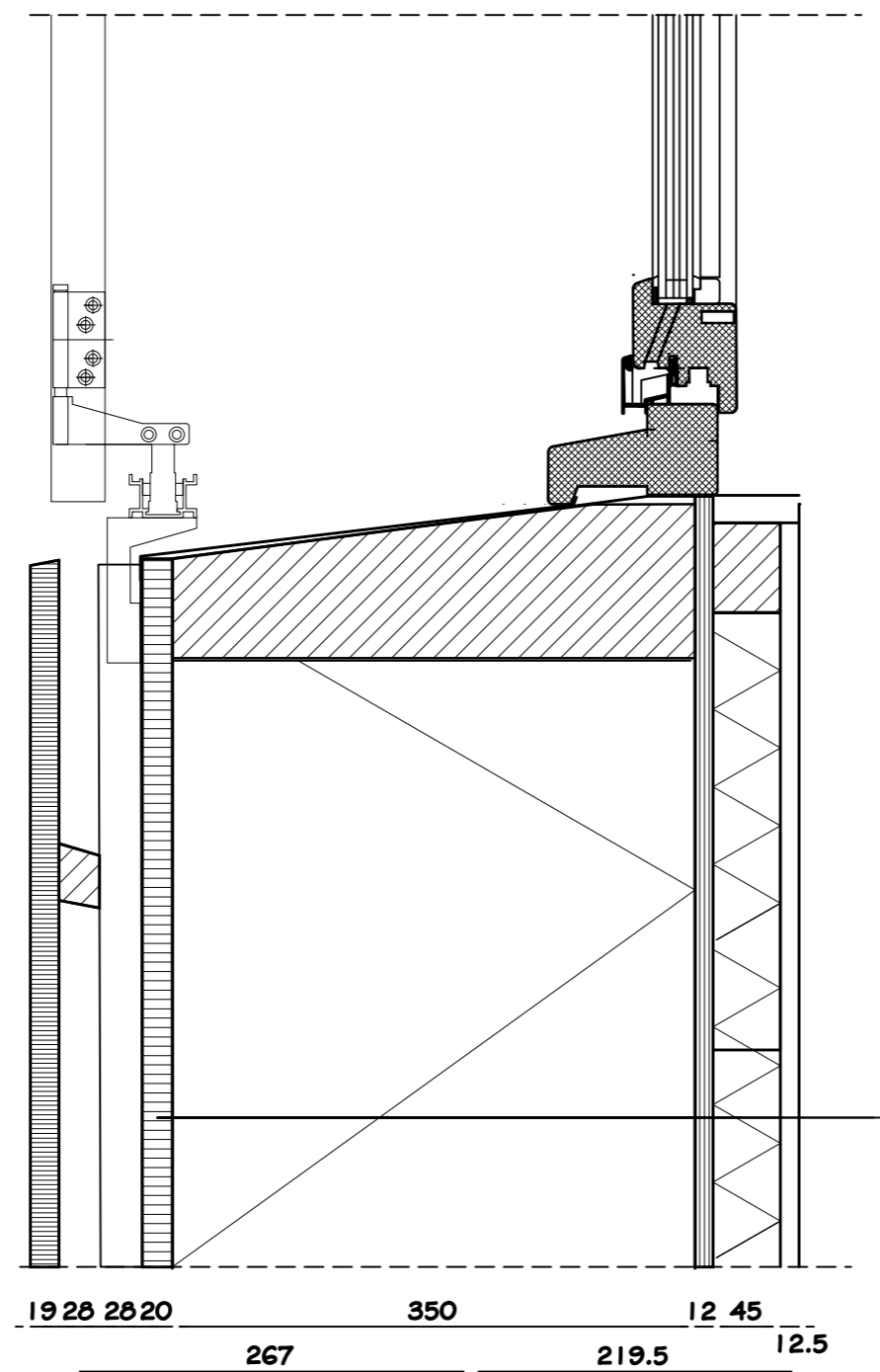


Apartment model 1:50

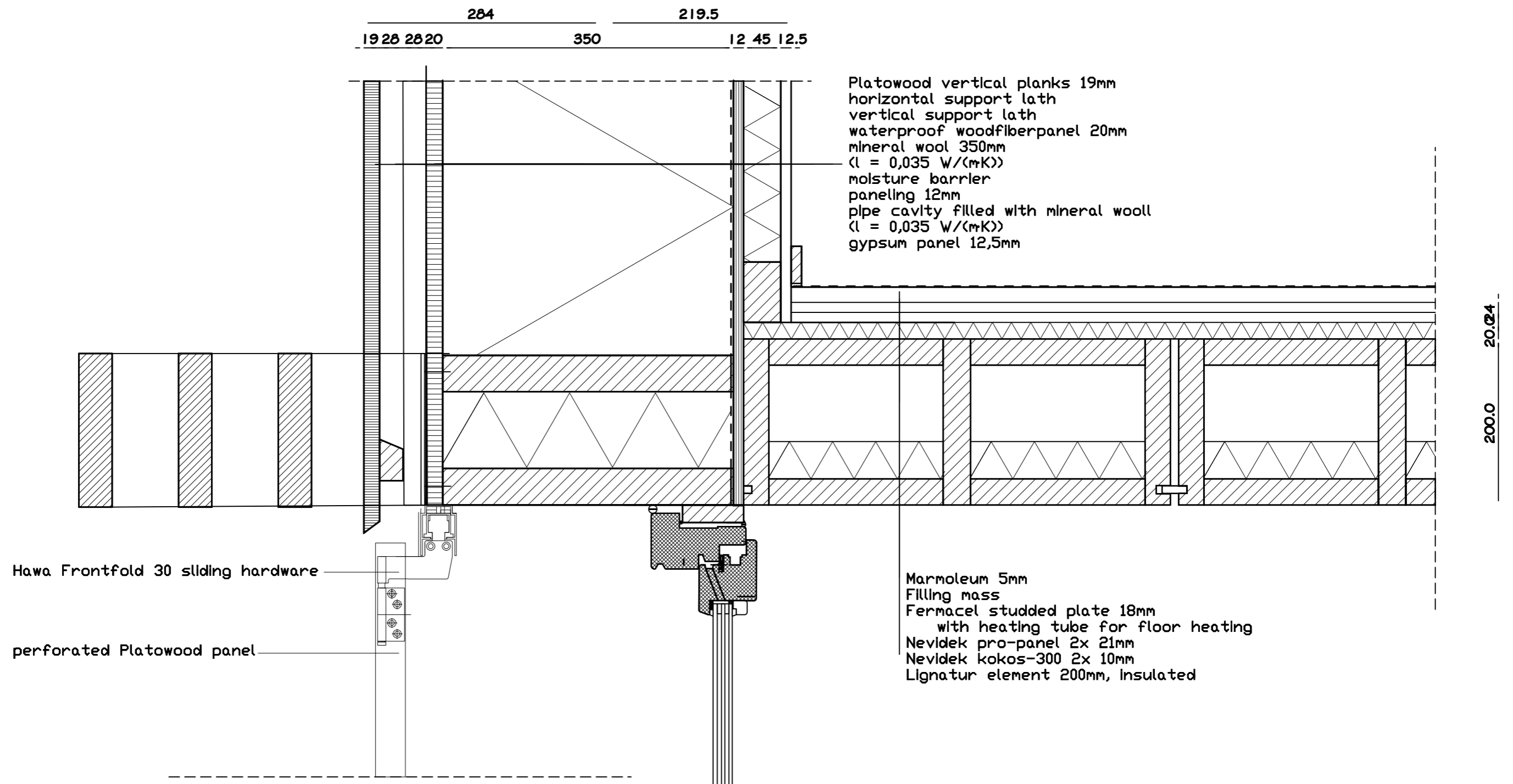


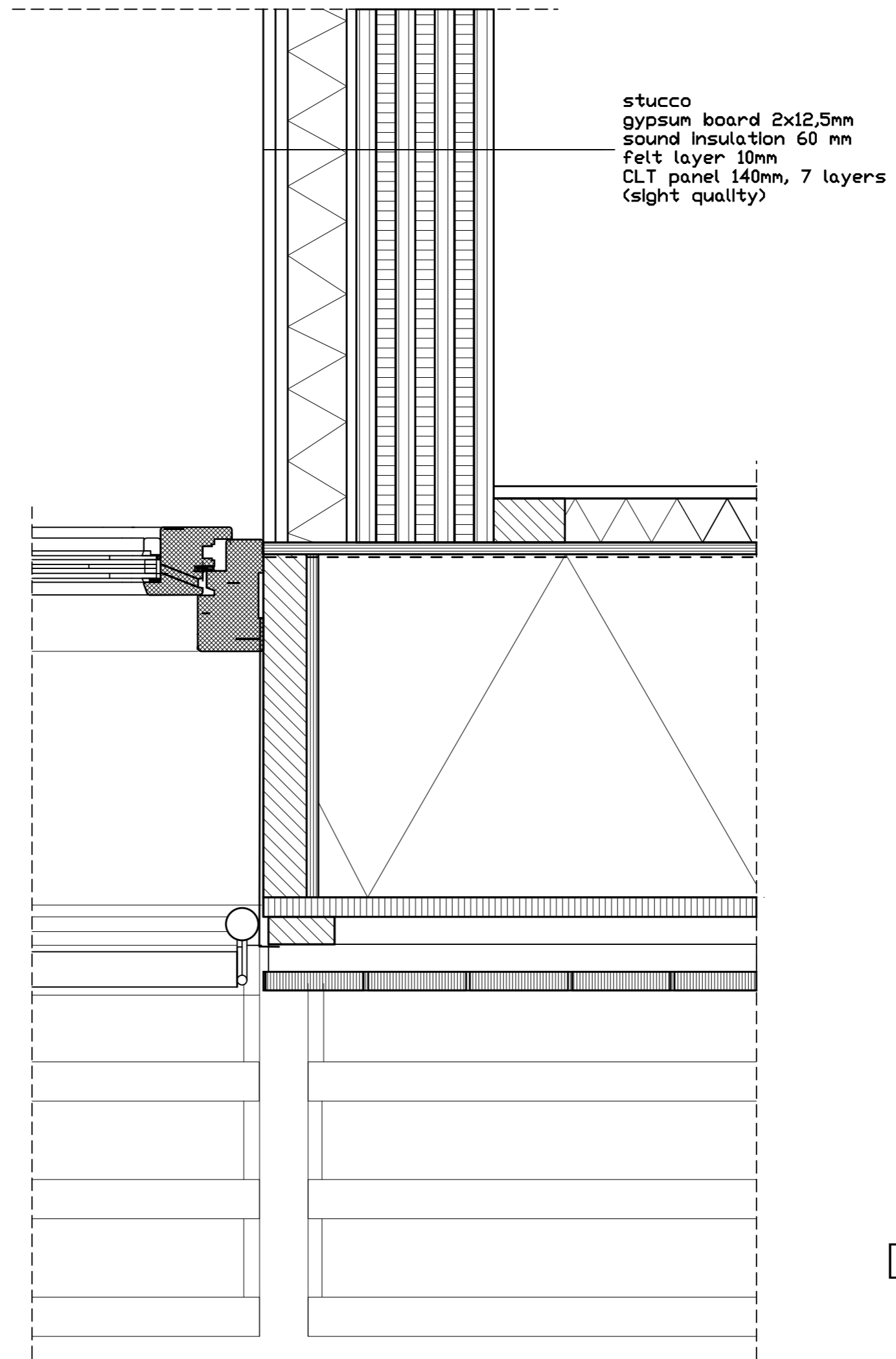
Fragment 1:20  
(rescaled 25% to fit page)





Platowood vertical planks 19mm  
 horizontal support lath  
 vertical support lath  
 waterproof woodfiberpanel 20mm  
 mineral wool 350mm  
 $\langle l = 0,035 \text{ W/(mK)} \rangle$   
 moisture barrier  
 paneling 12mm  
 pipe cavity filled with mineral wool  
 $\langle l = 0,035 \text{ W/(mK)} \rangle$   
 gypsum panel 12,5mm

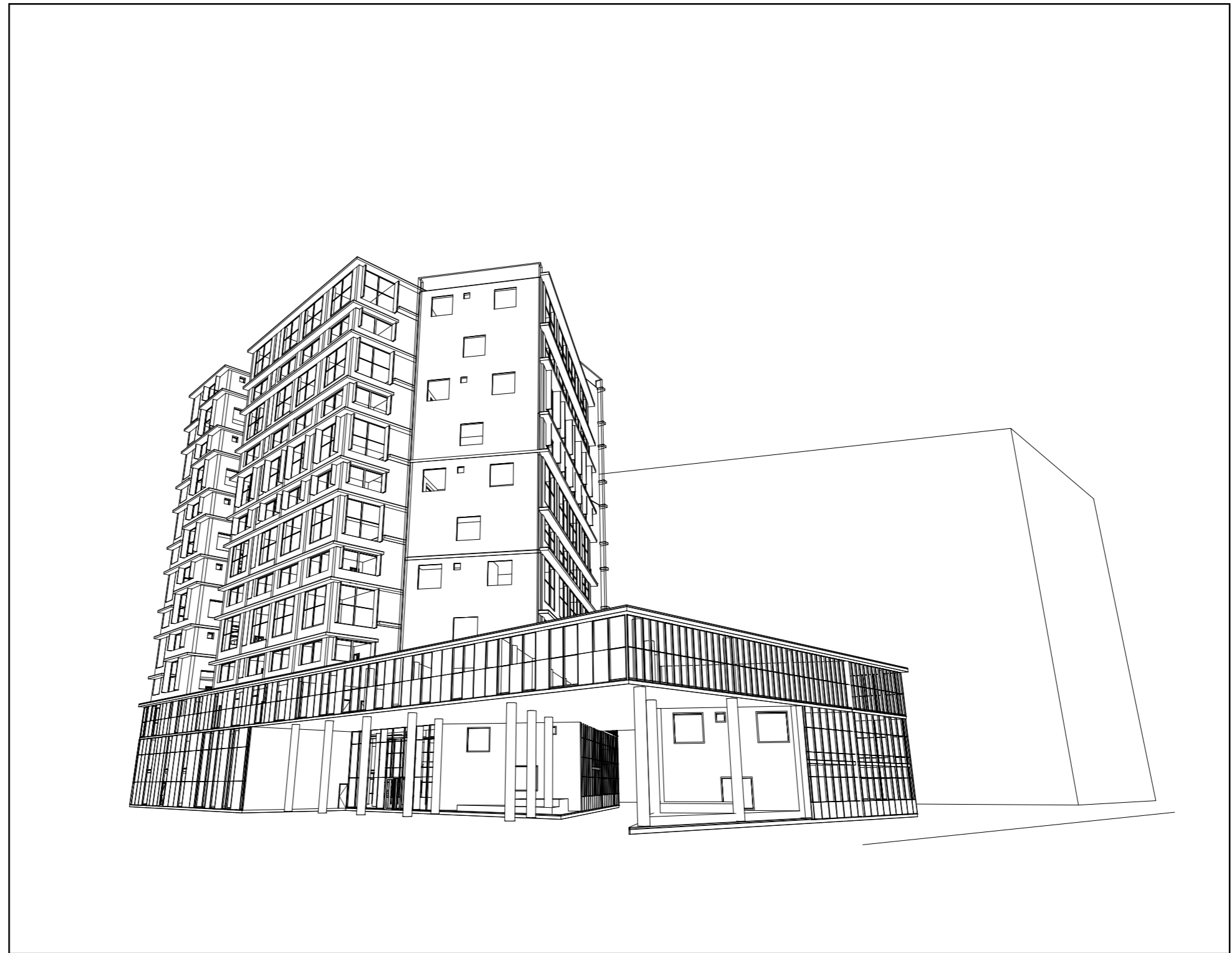


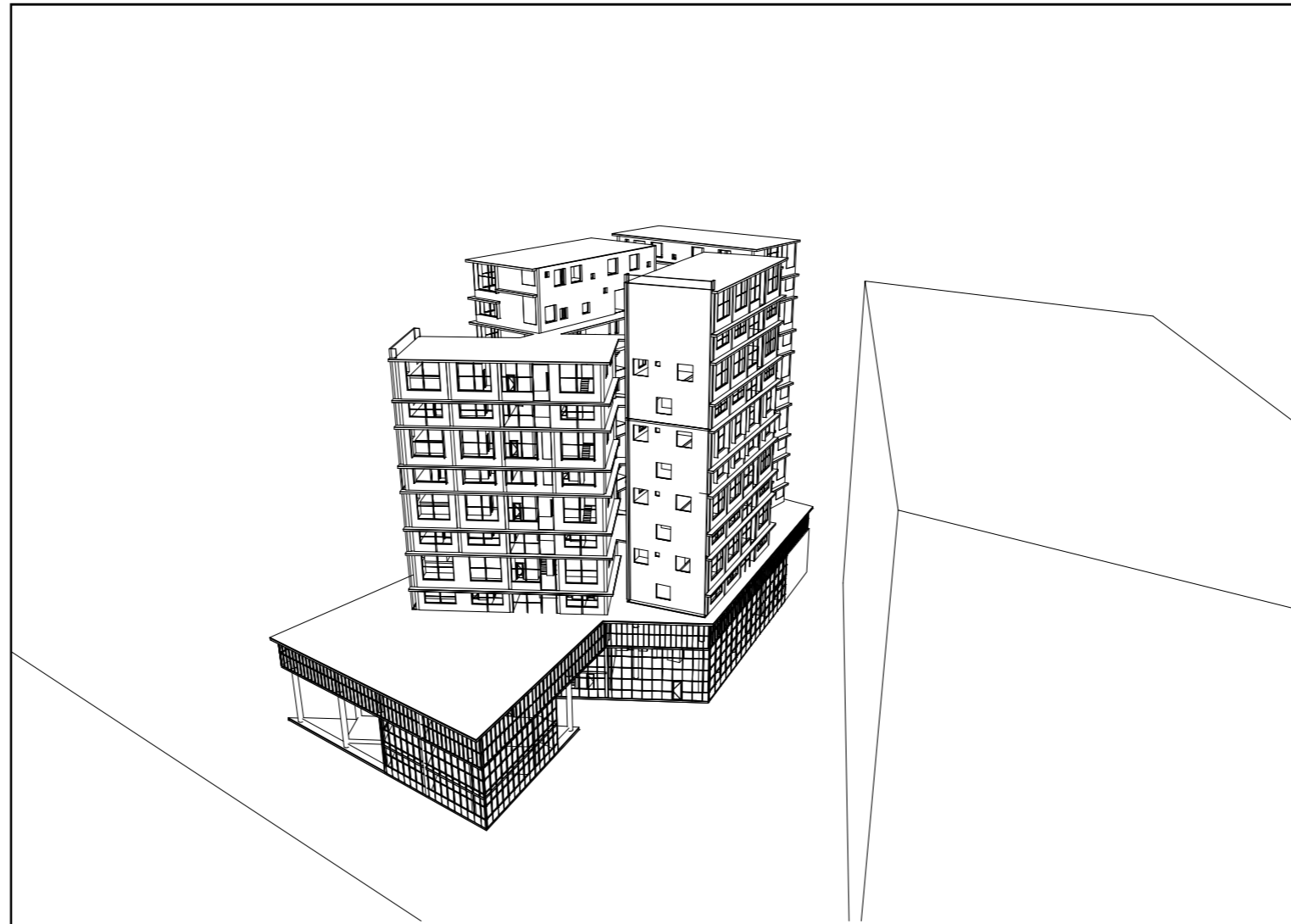


Detail horizontal 1:5

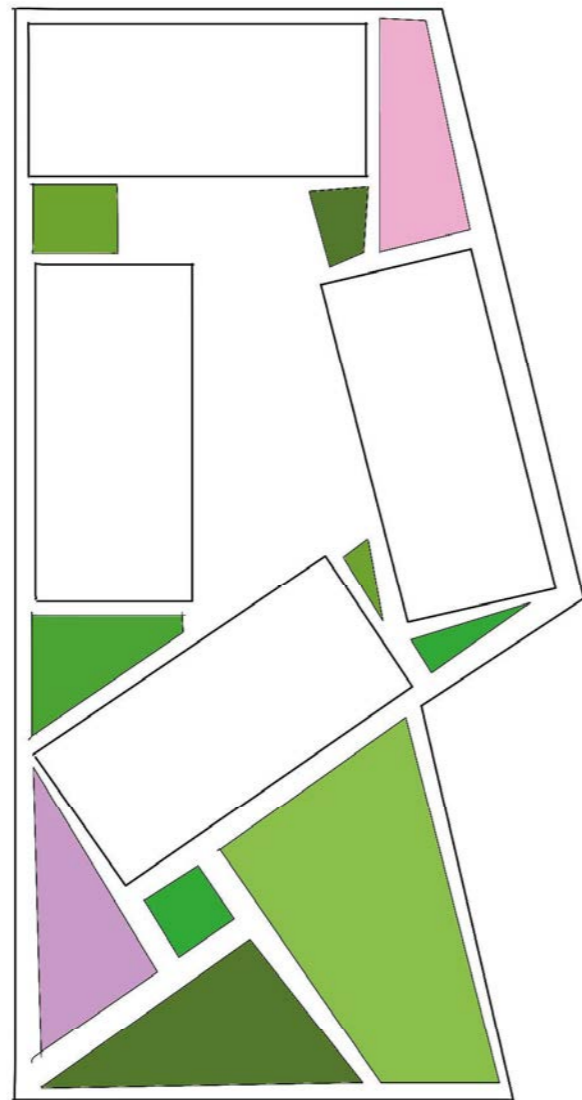


Thank you for your attention

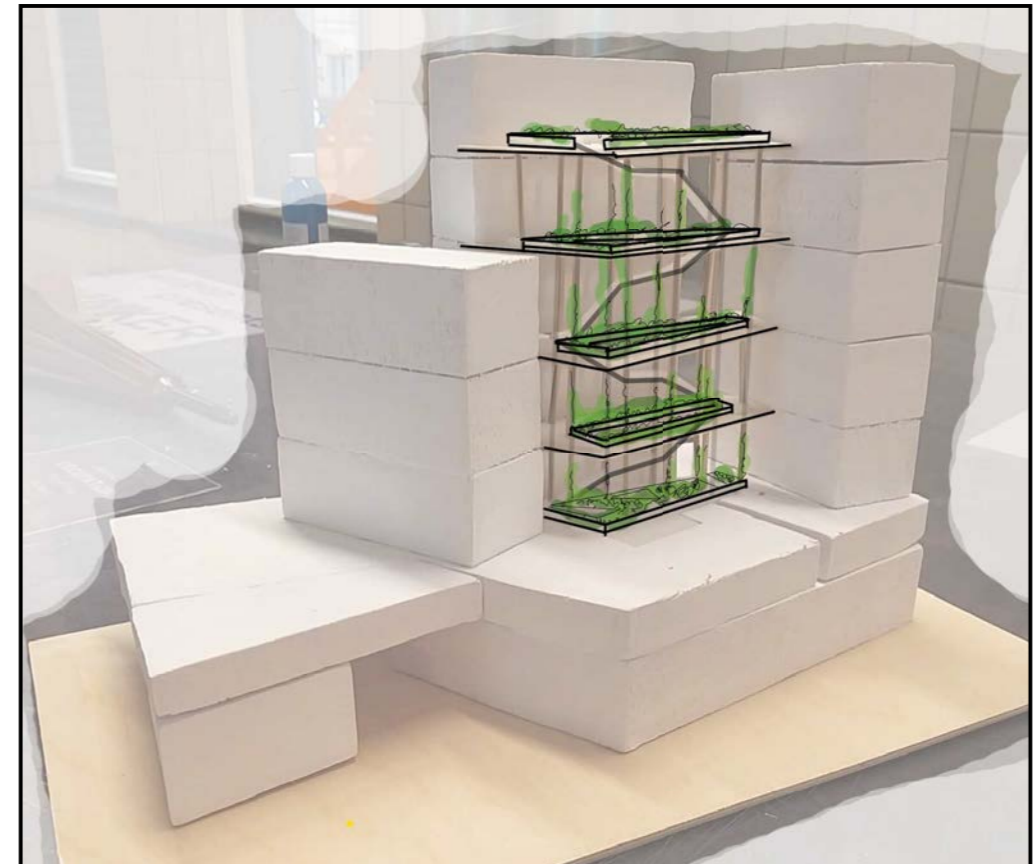








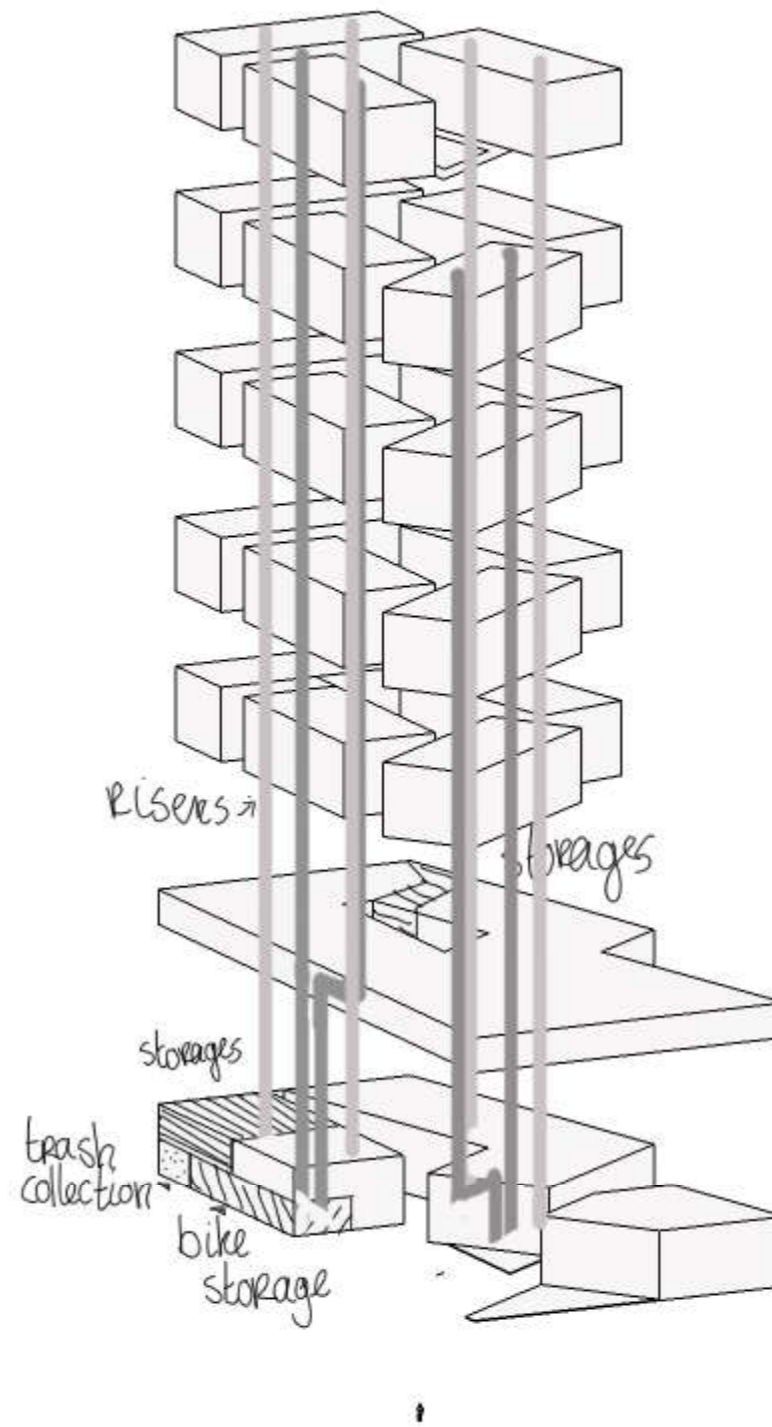
Green pattern on 2nd floor



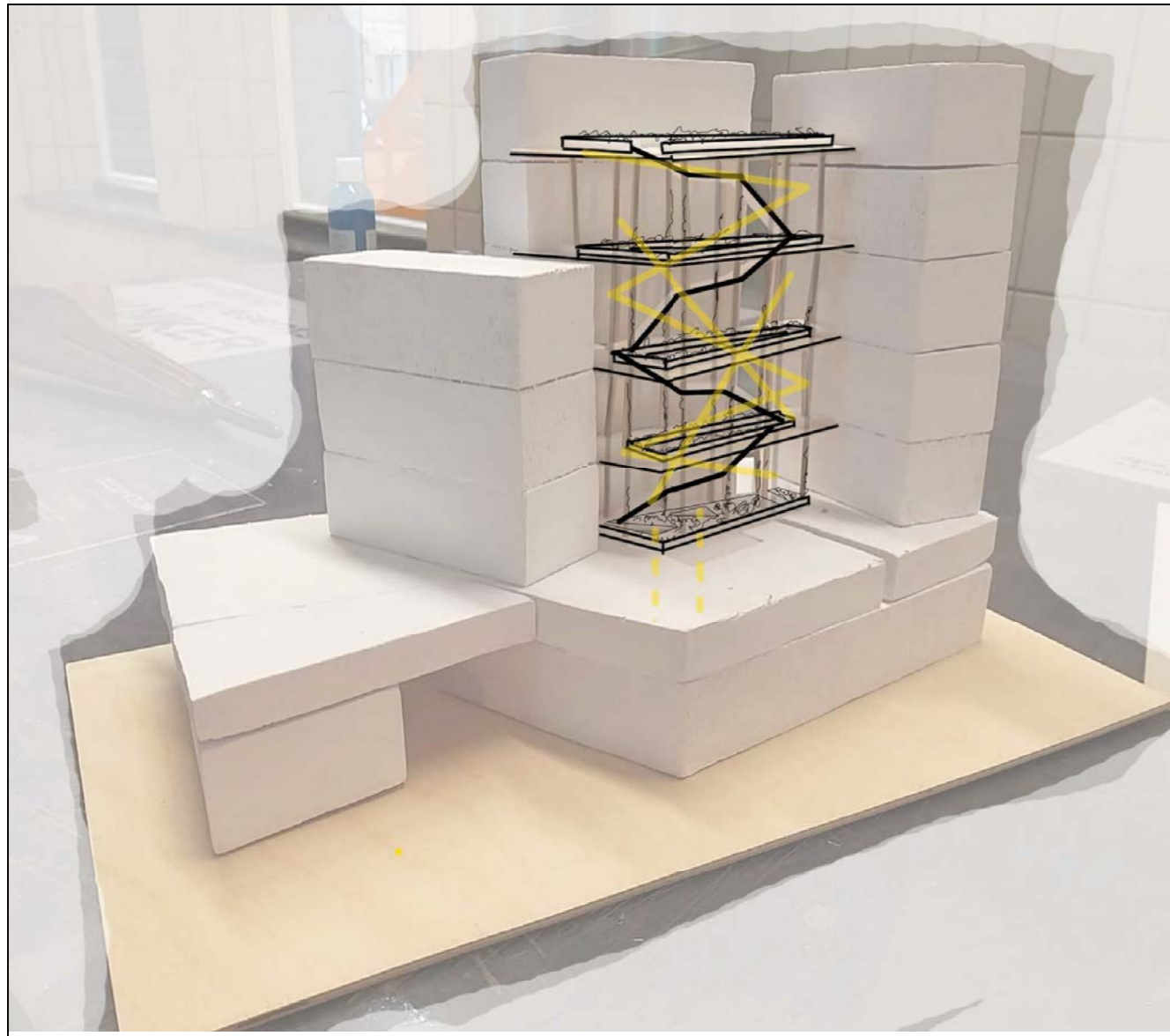
Green on interior atrium



Extra slide 5: Emergency routing



Extra slide 6: Storages etc.



Extra slide 7: atrium concept on model