

THE NATURE INCLUSIVE CITY

P5 DRAWING SET

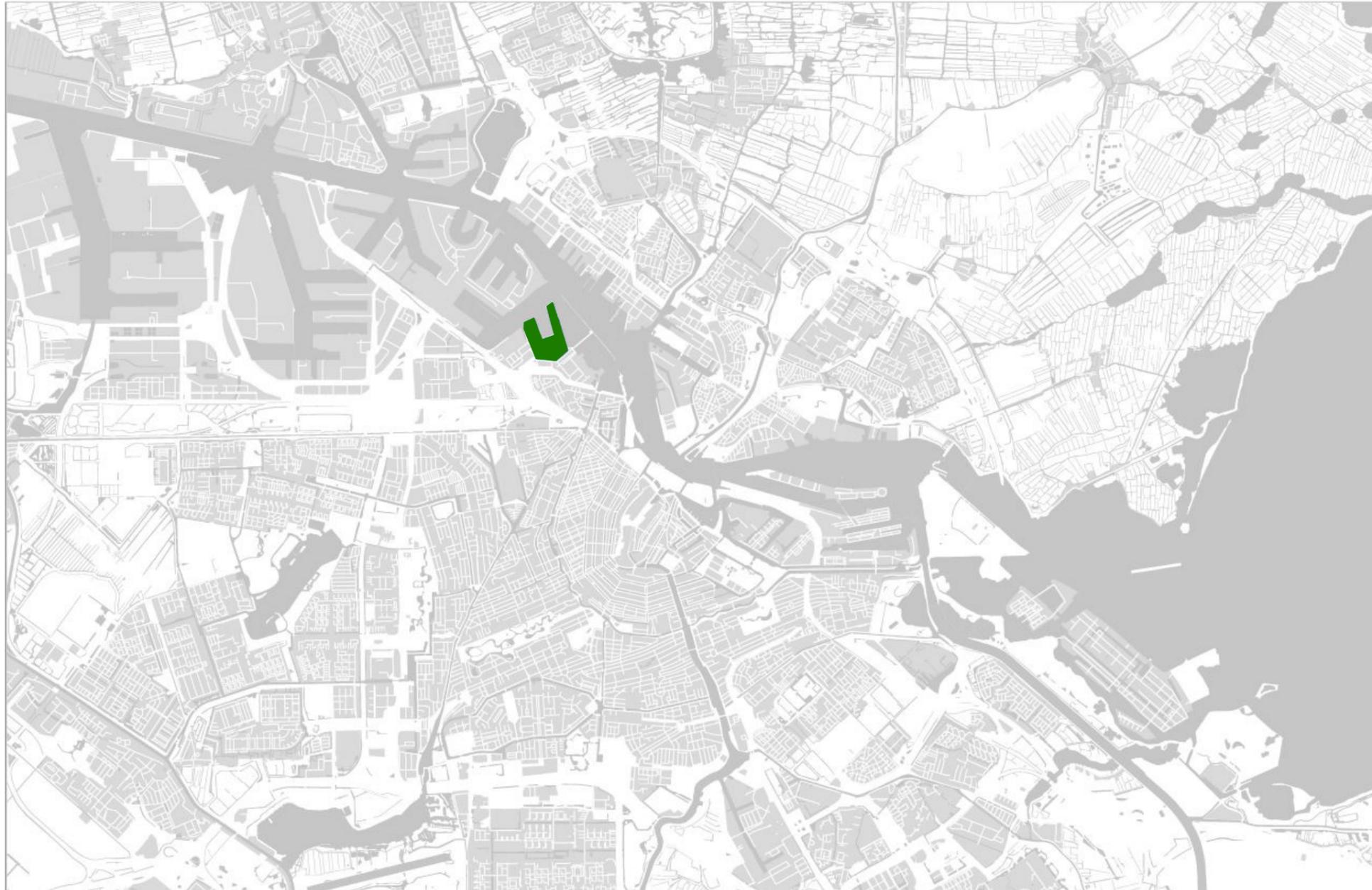


COEN ABELS 04-03-2022

LLNR 4622073

INDEX	
City	2
Floorplans Building Block	8
Sections	21
Facades	26
Floorplans Dwellings Residential Tower	31
Floorplans Dwellings Apartment building	38
Facade Fragment	45
Building Details	48
Construction	57
Climate Design	60
Materialisation	67
Impressions	70

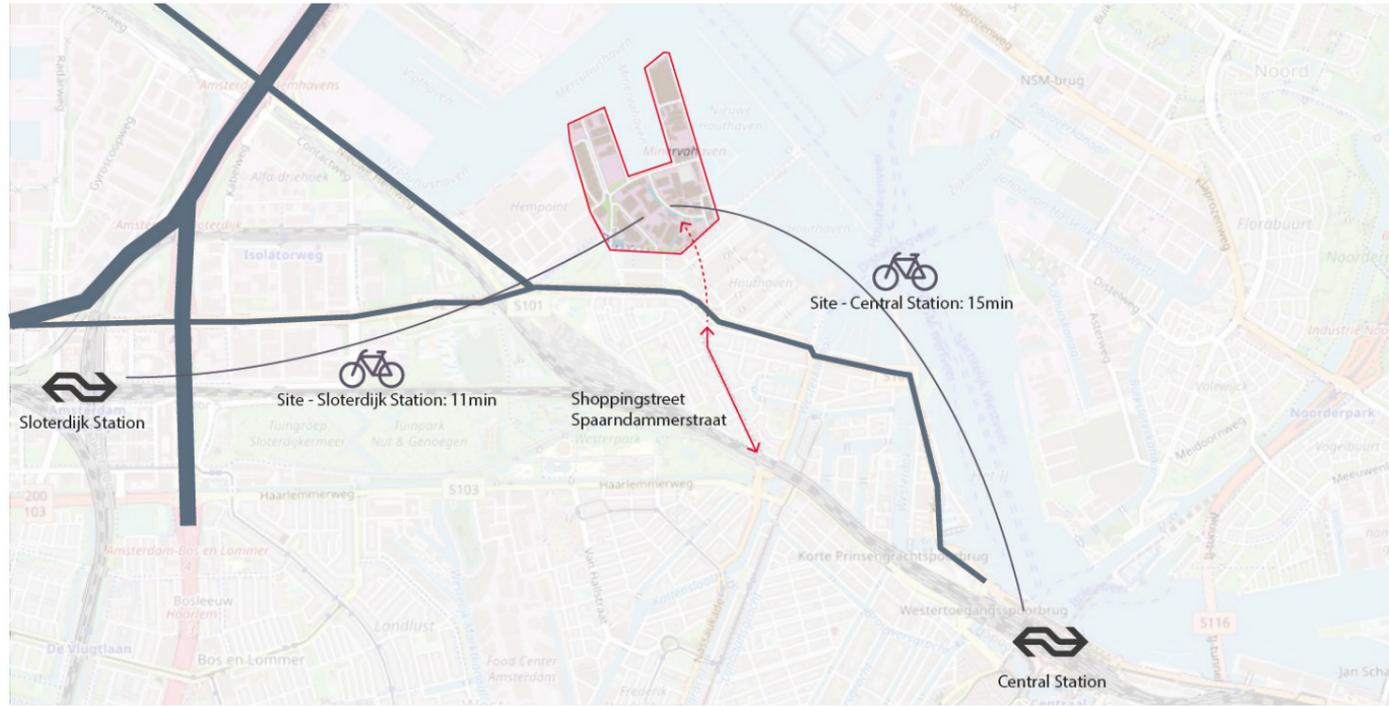
City



Amsterdam
Minerva Harbour

Location

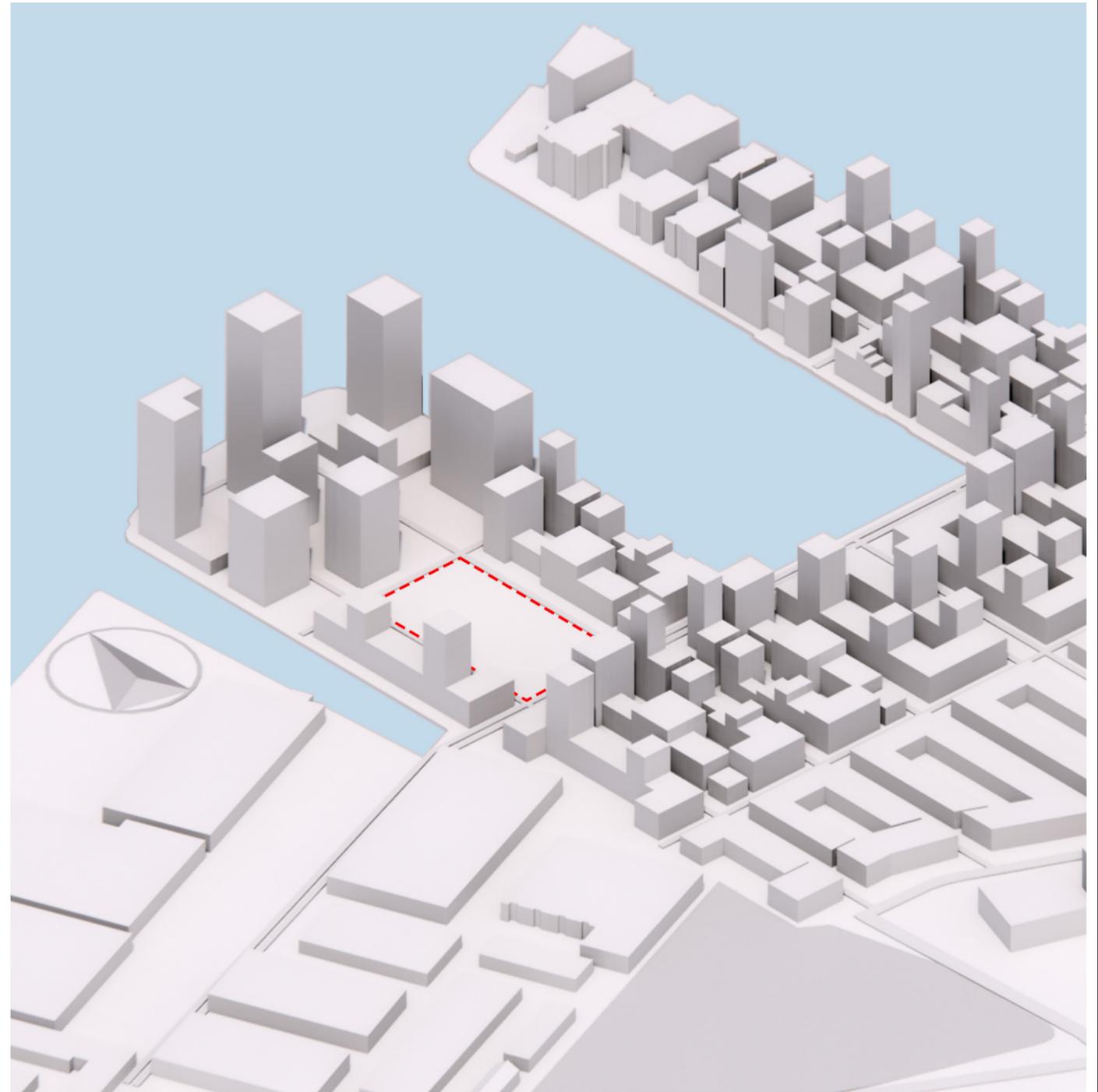
Former industrial area Amsterdam Minerva Harbour



From former industrial area to the density of Manhattan New York

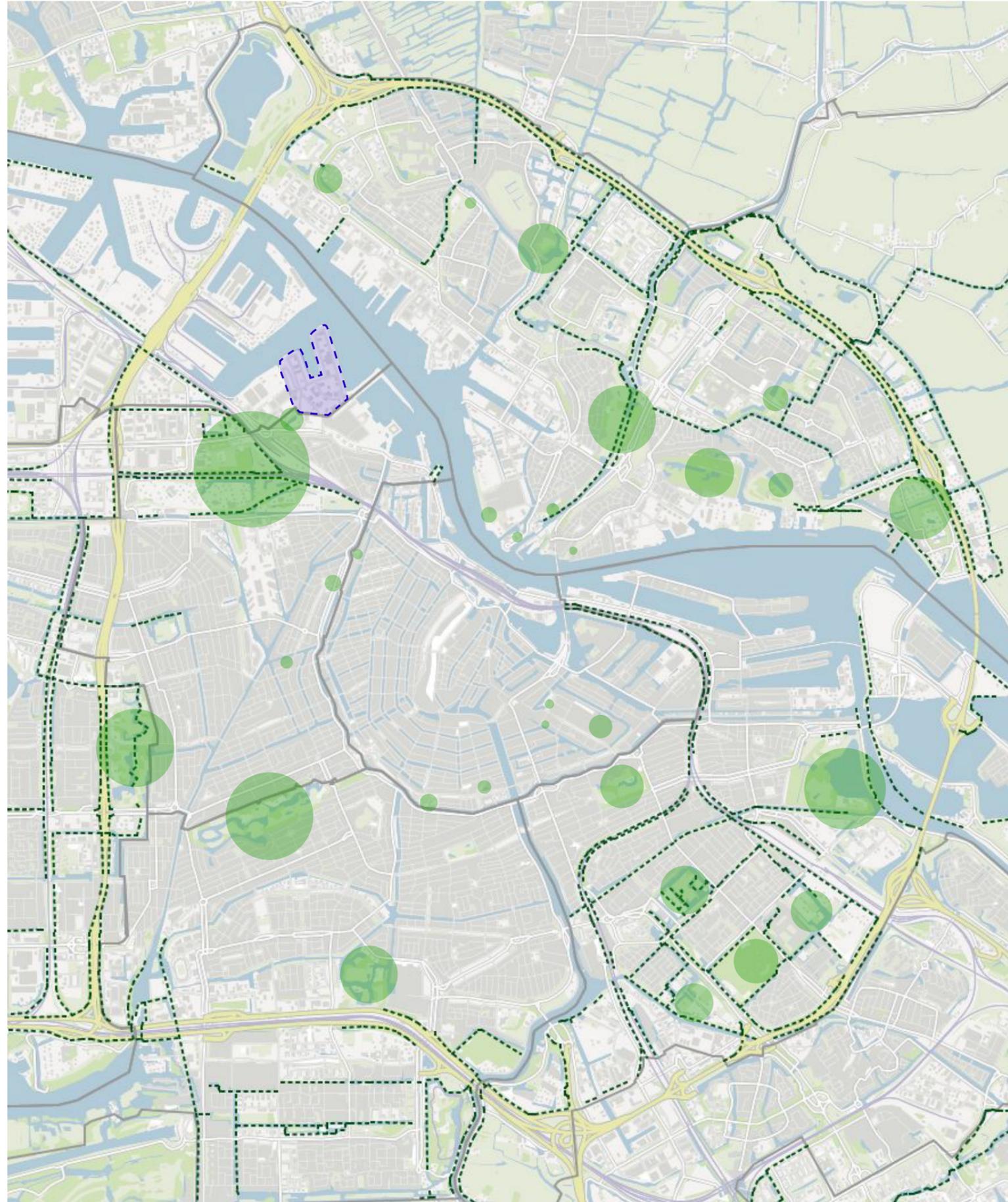


Building Plot

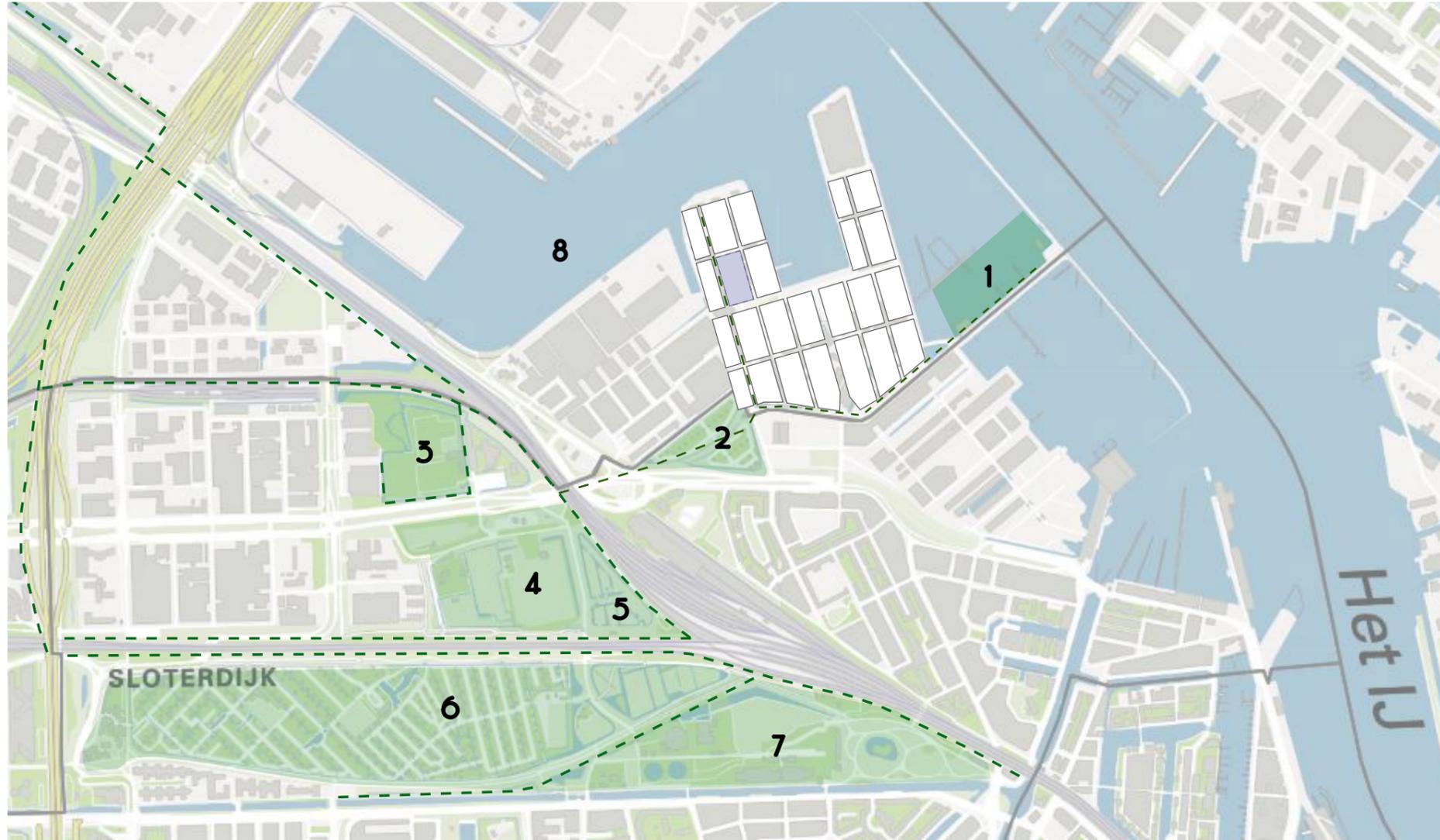


- High Density
- Surrounded by buildings
- No easy acces to flora and fauna

Biodiversity hotspots

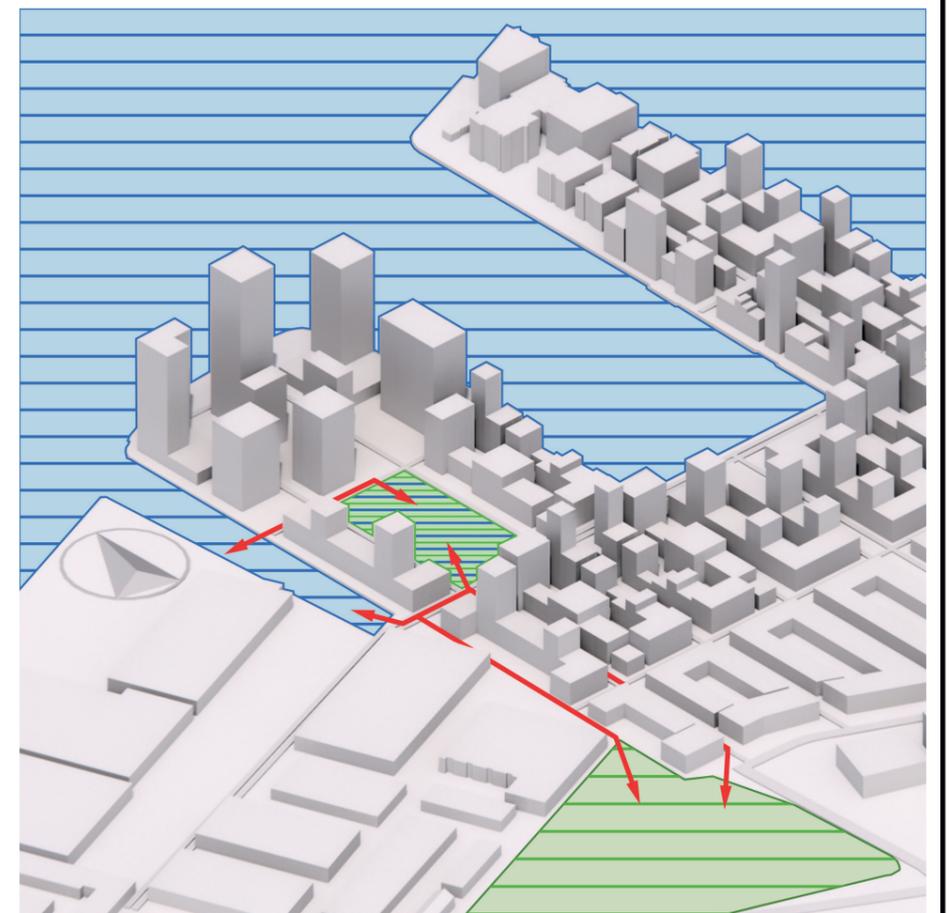
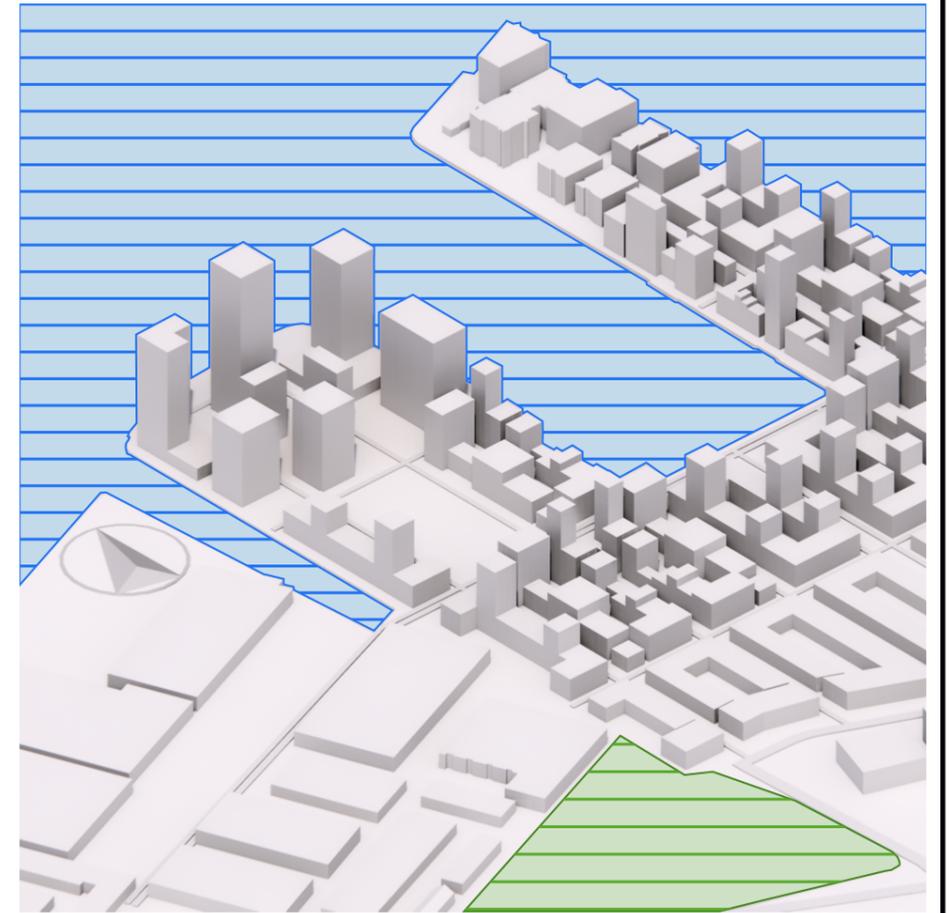


Flora and Fauna to Building Block

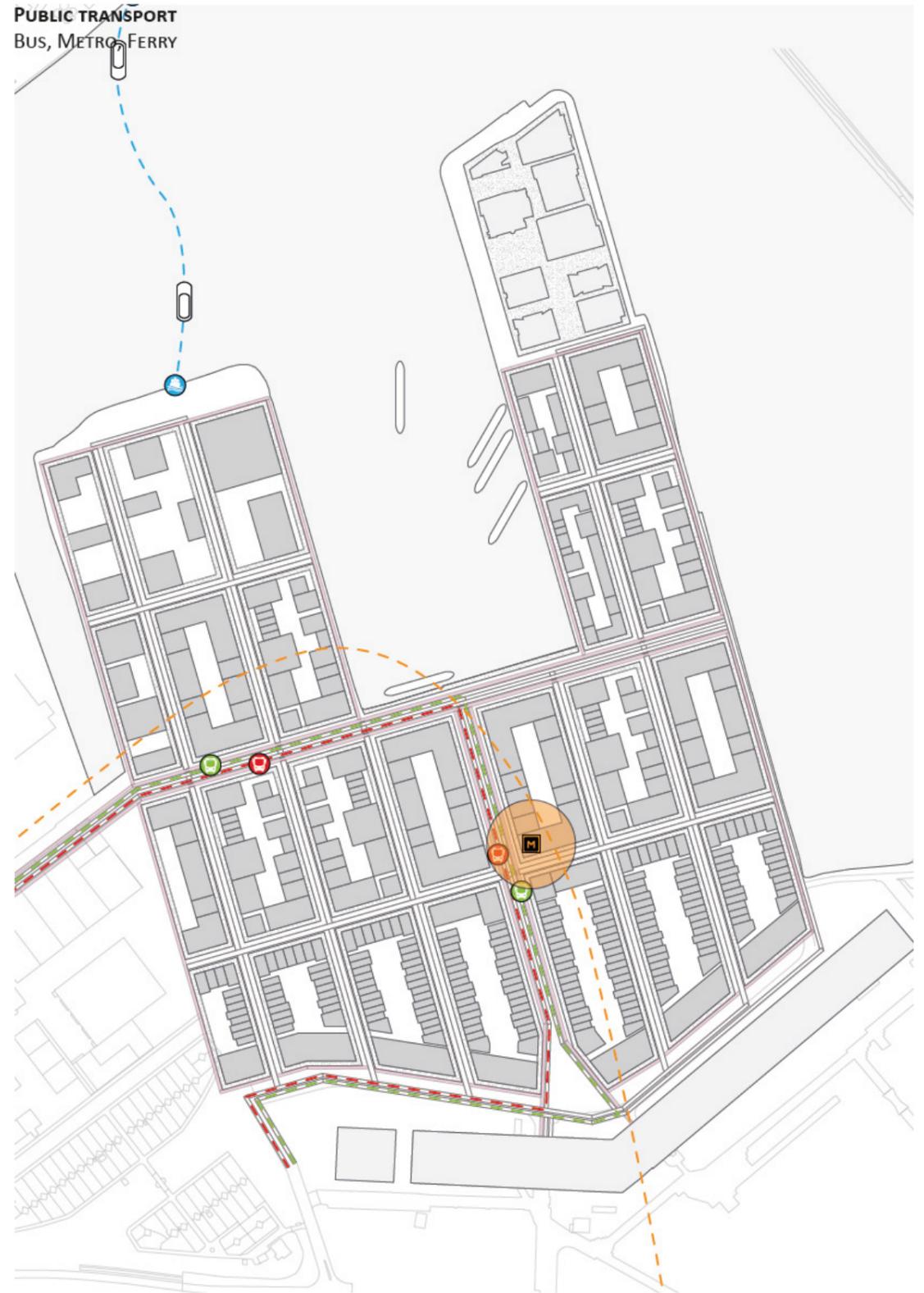


GREEN AND BLUE AREAS

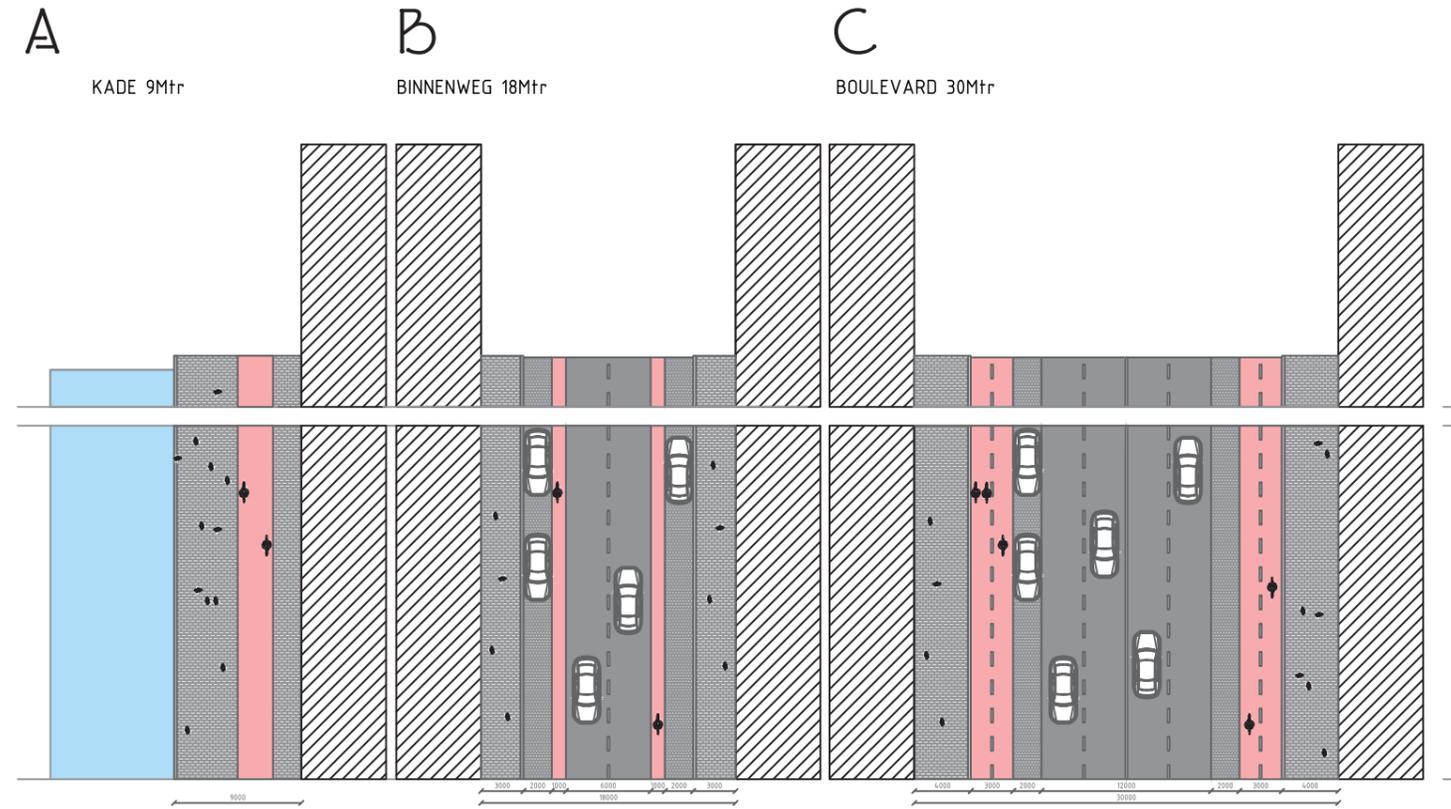
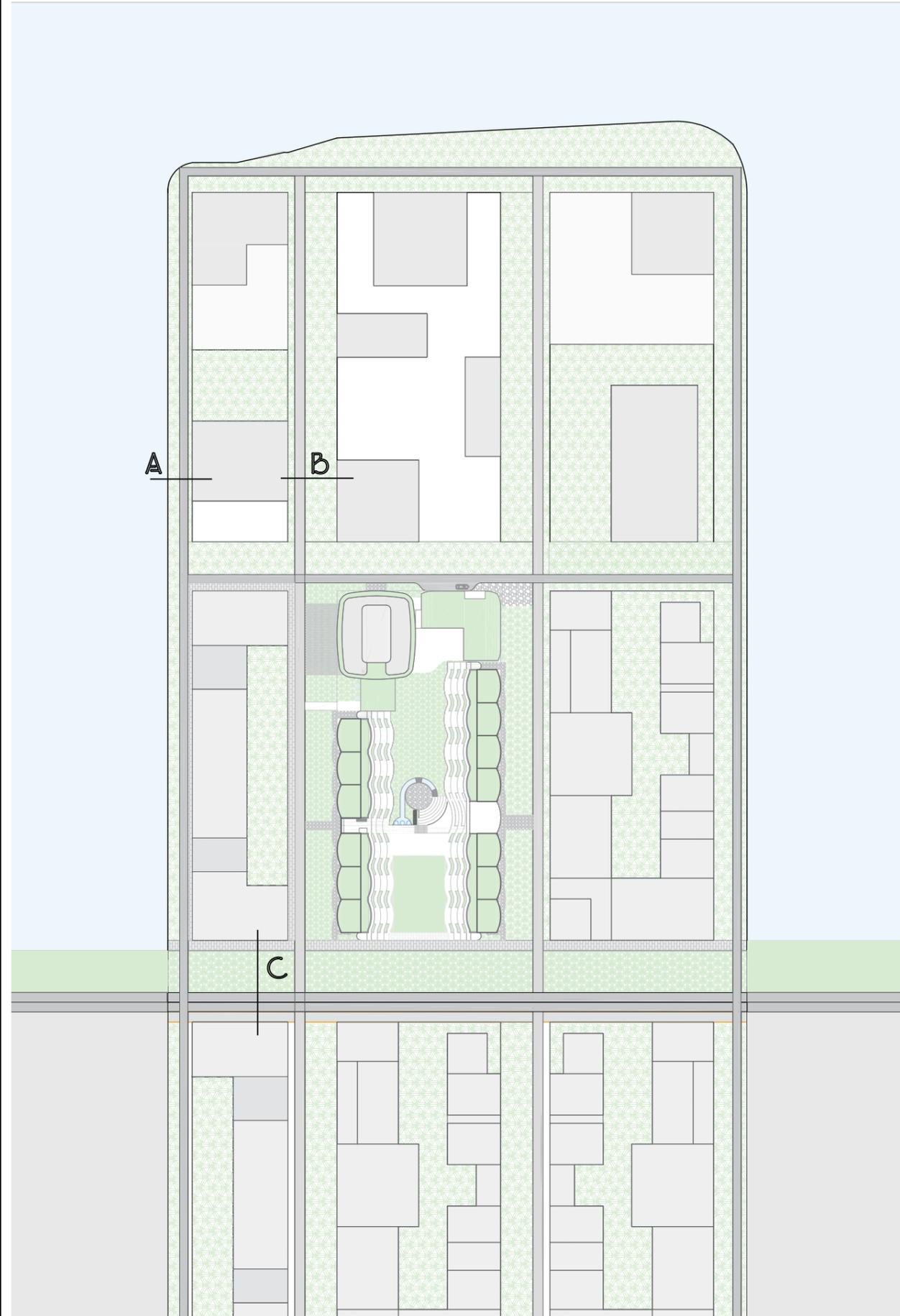
- 1) Planned Parc
- 2) Allotment Gardens - Zonnehoek
- 3) Sports parc
- 4) St. Barbara Cemetery
- 5) Woeste Westen - natural playground
- 6) Allotment Gardens Sloterdijk Harbour
- 7) Westerpark
- 8) Harbour



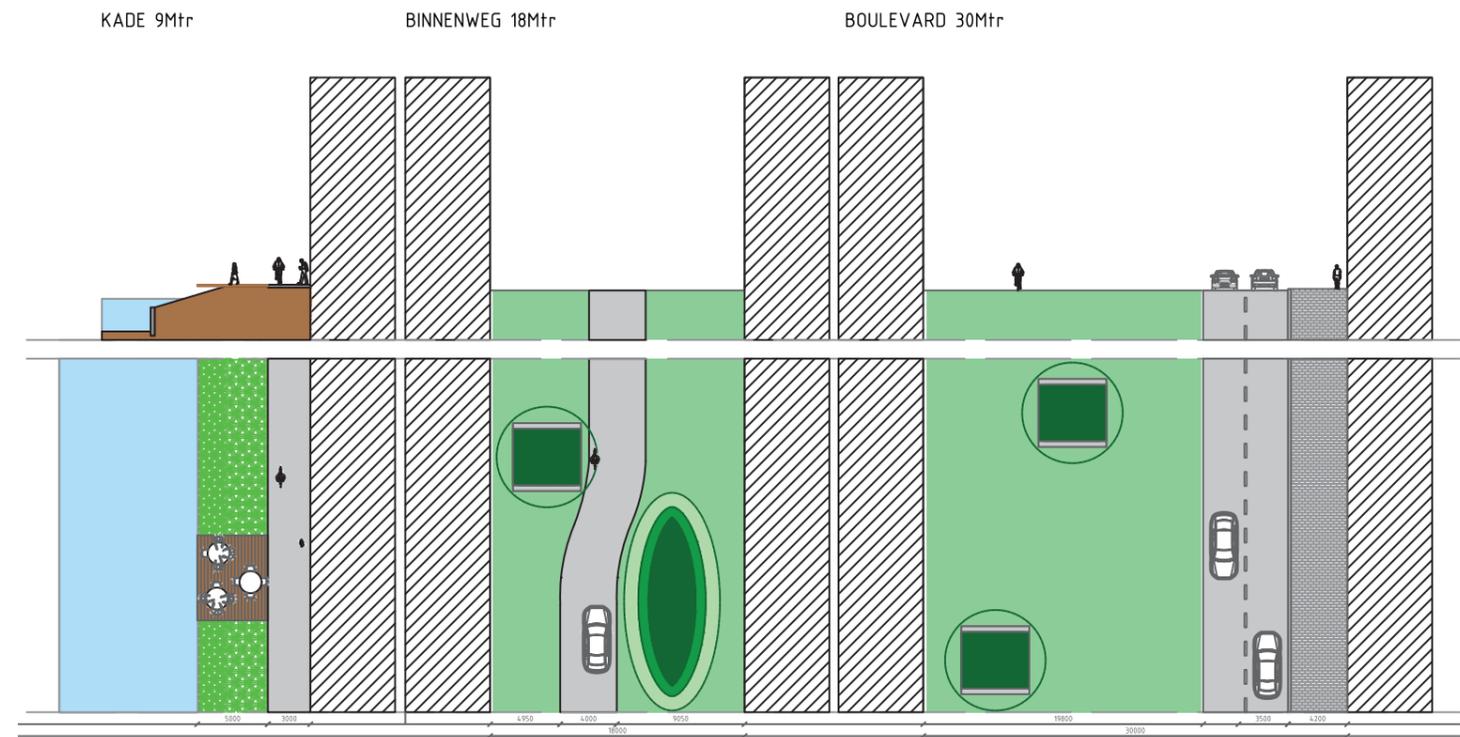
“Car Free” City



Car Free City - Green Infrastructure

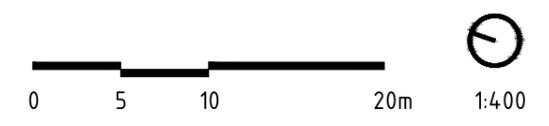
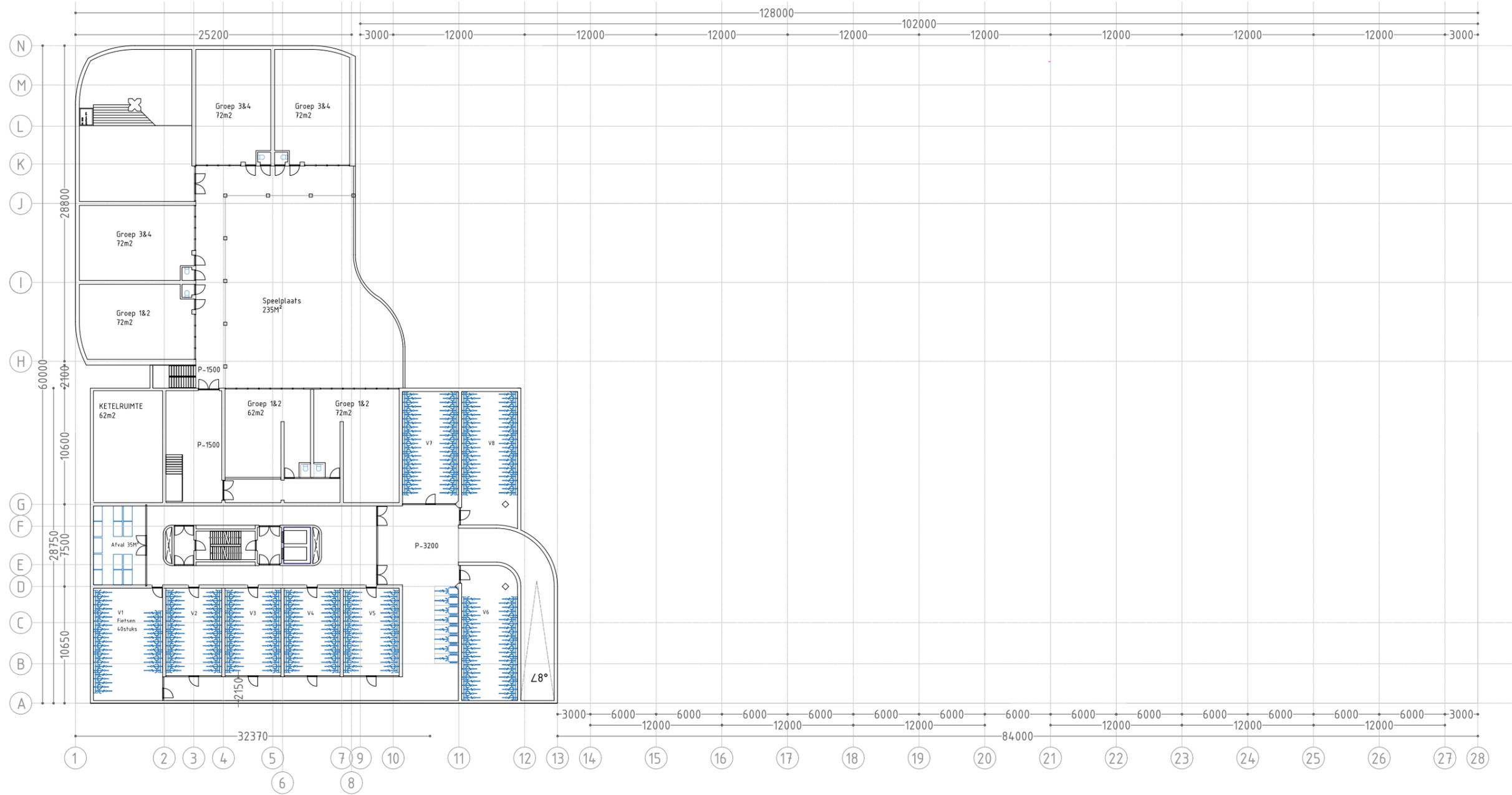


STRAAT PROFIELEN NIEUW

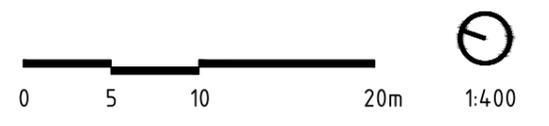
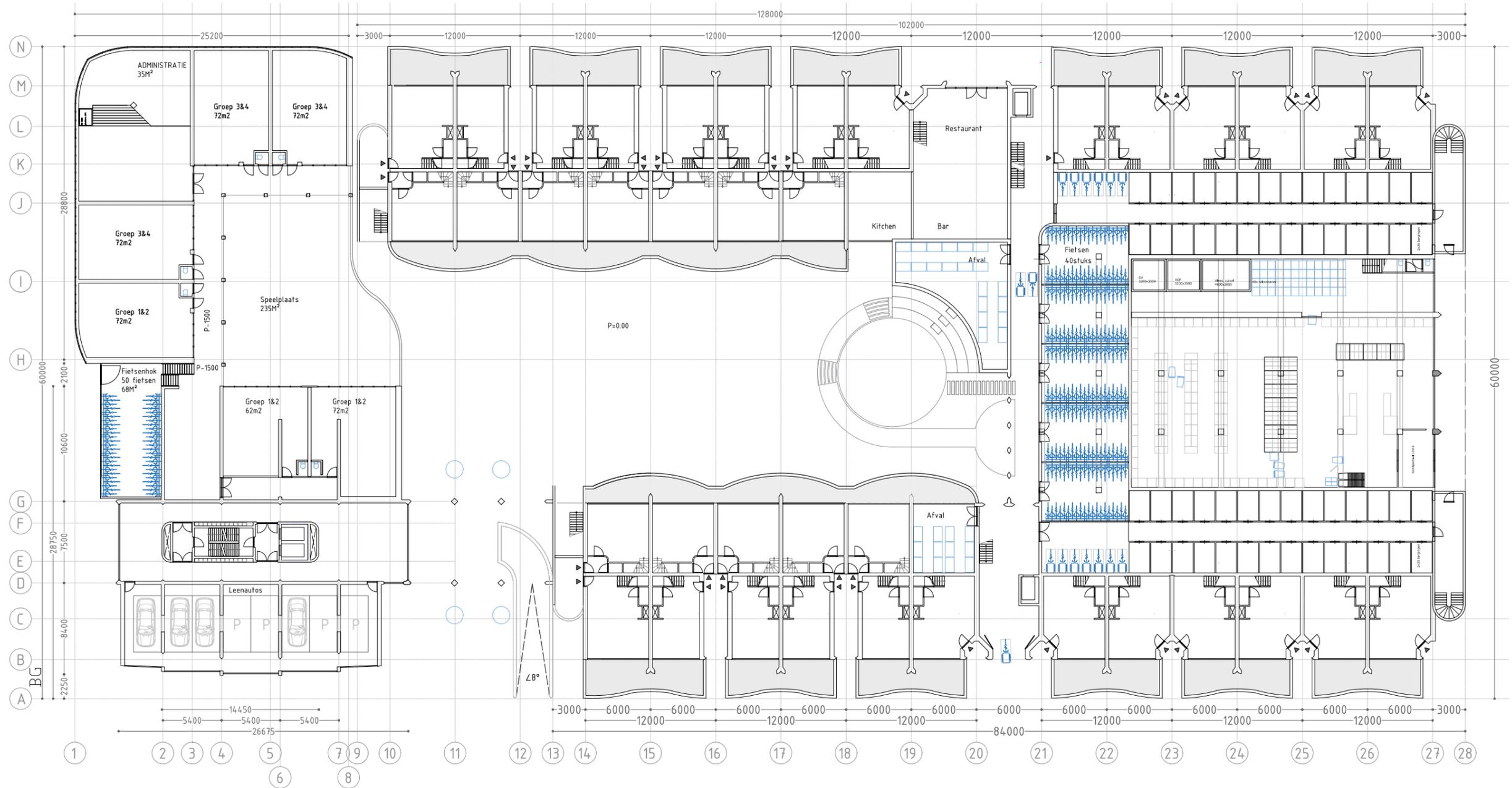


Floorplans Building Block

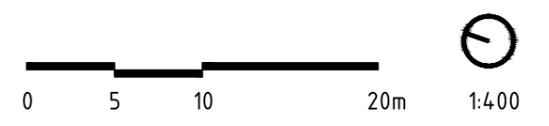
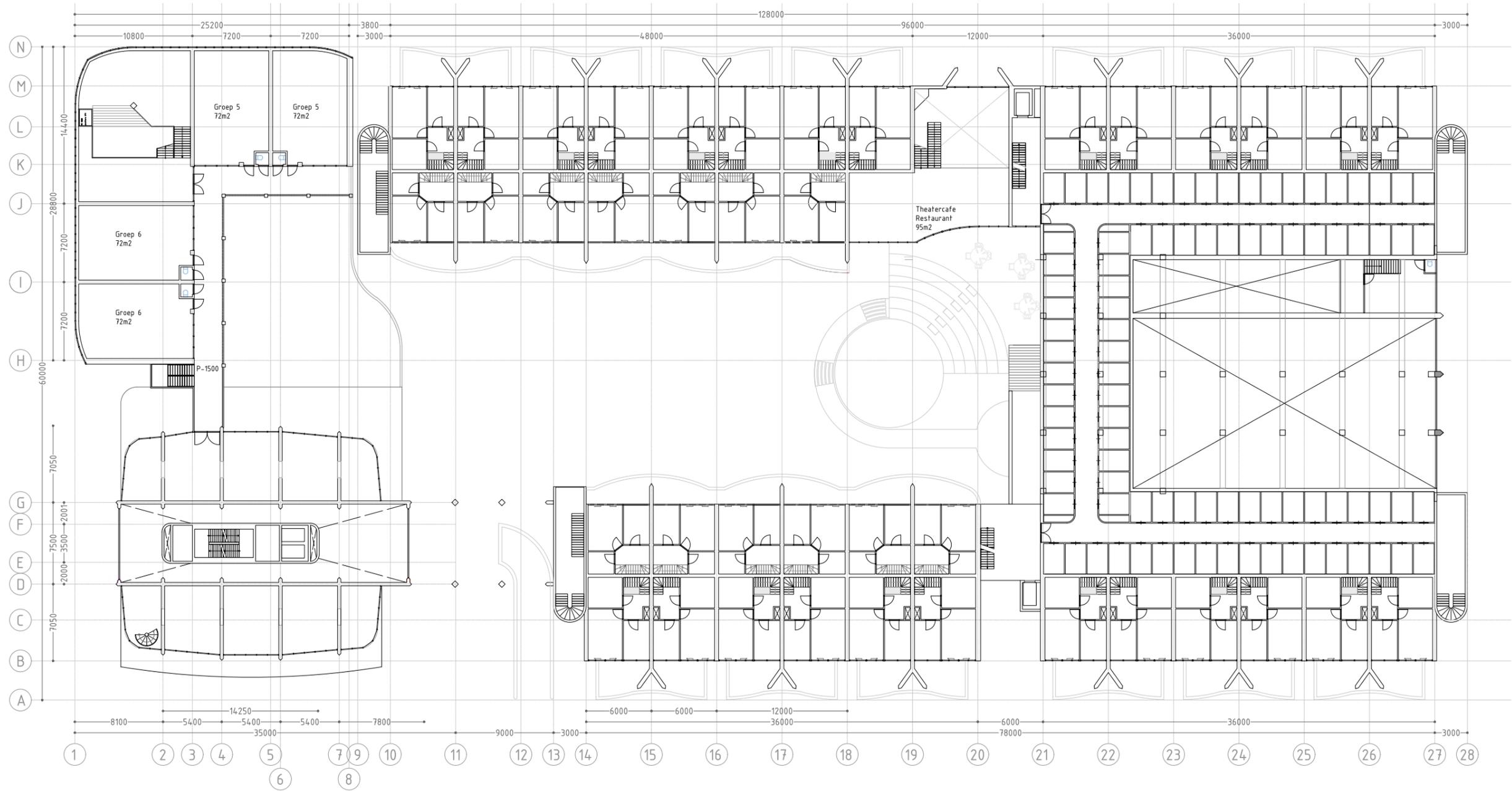
Floorplan Underground Parking



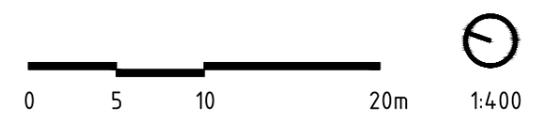
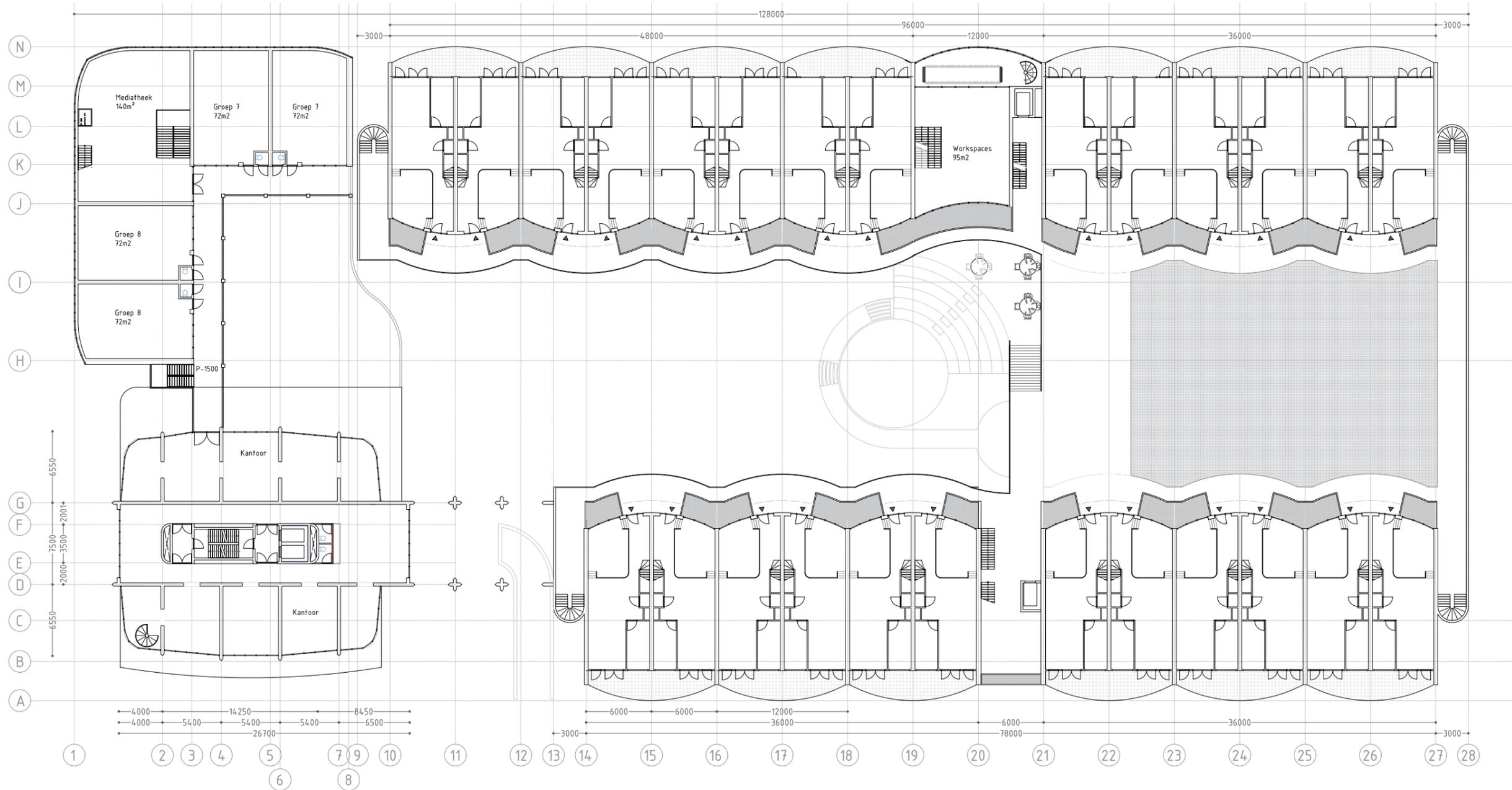
Floorplan Ground Floor



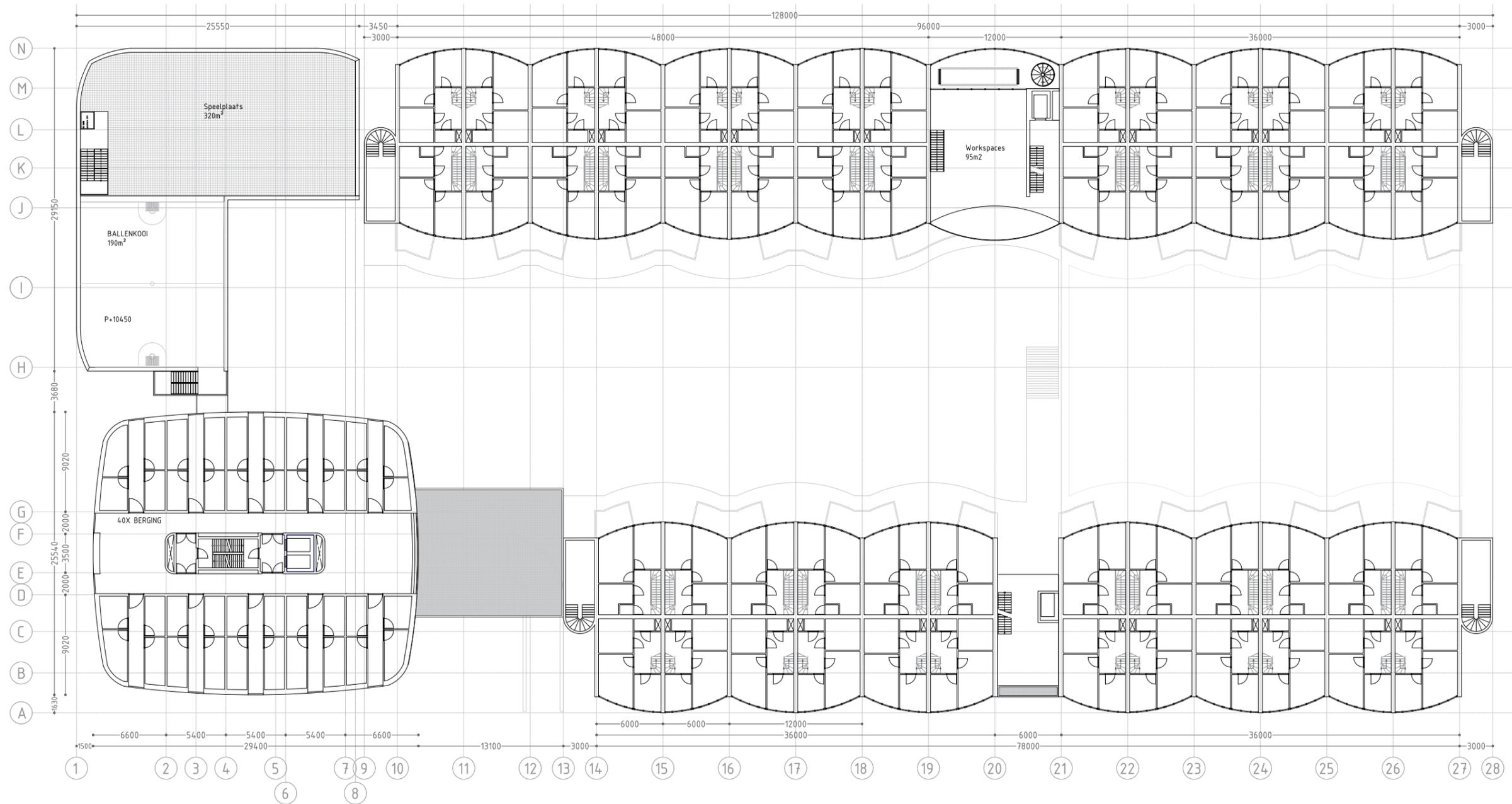
Floorplan First Floor



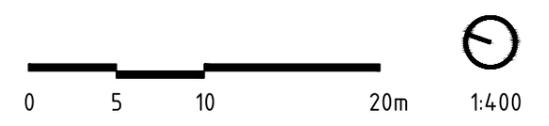
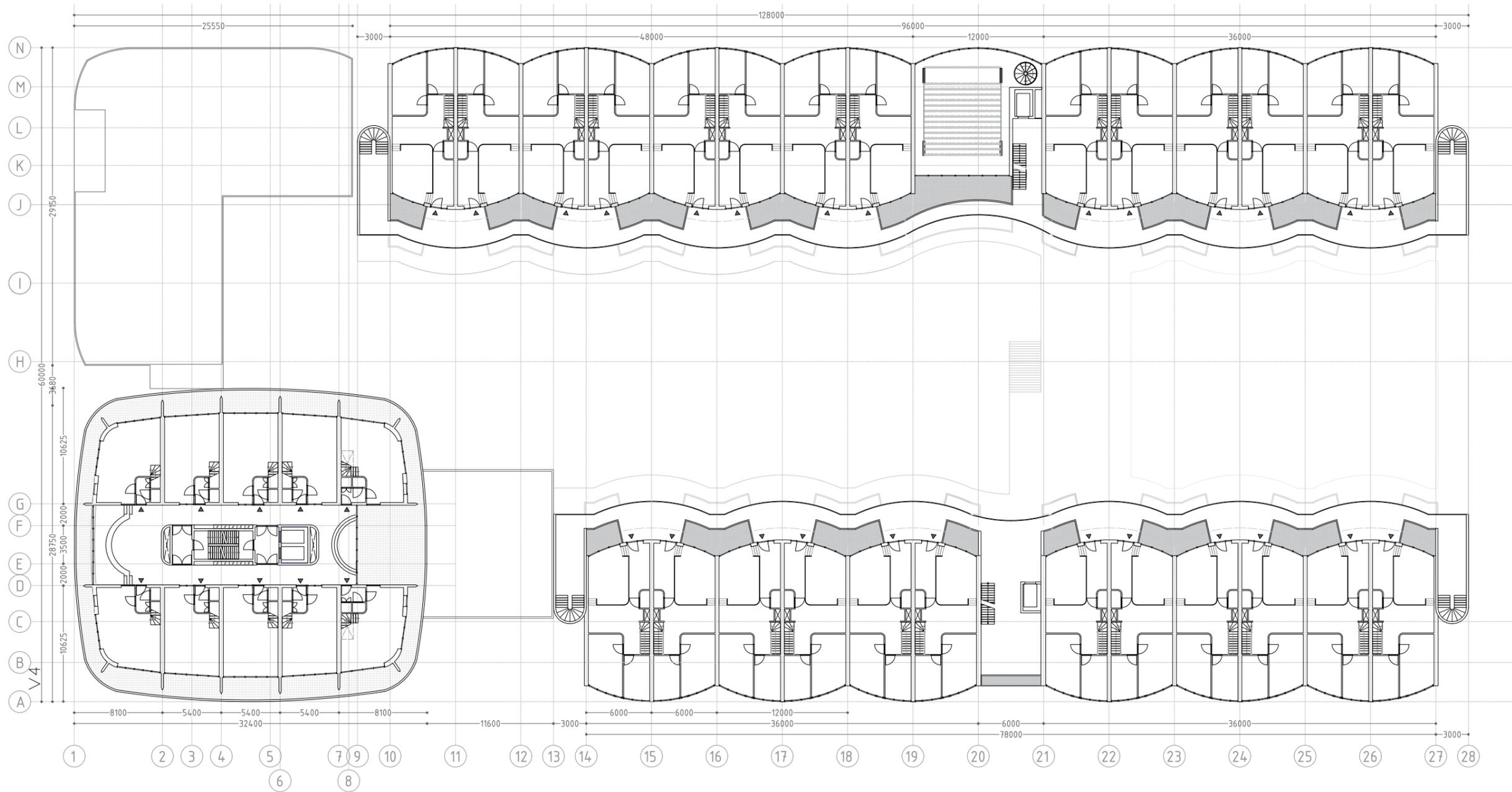
Floorplan Second Floor



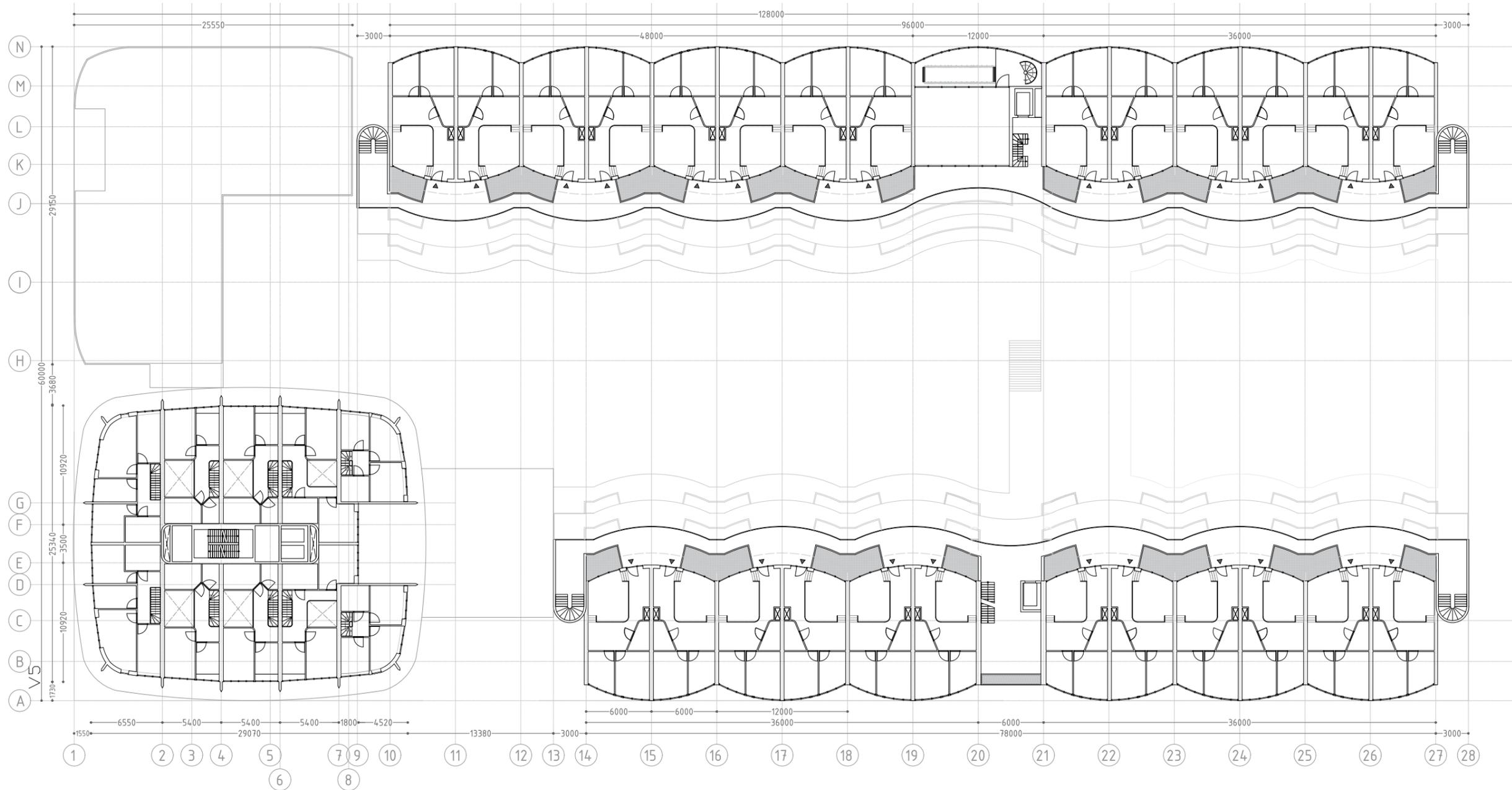
Floorplan Third Floor



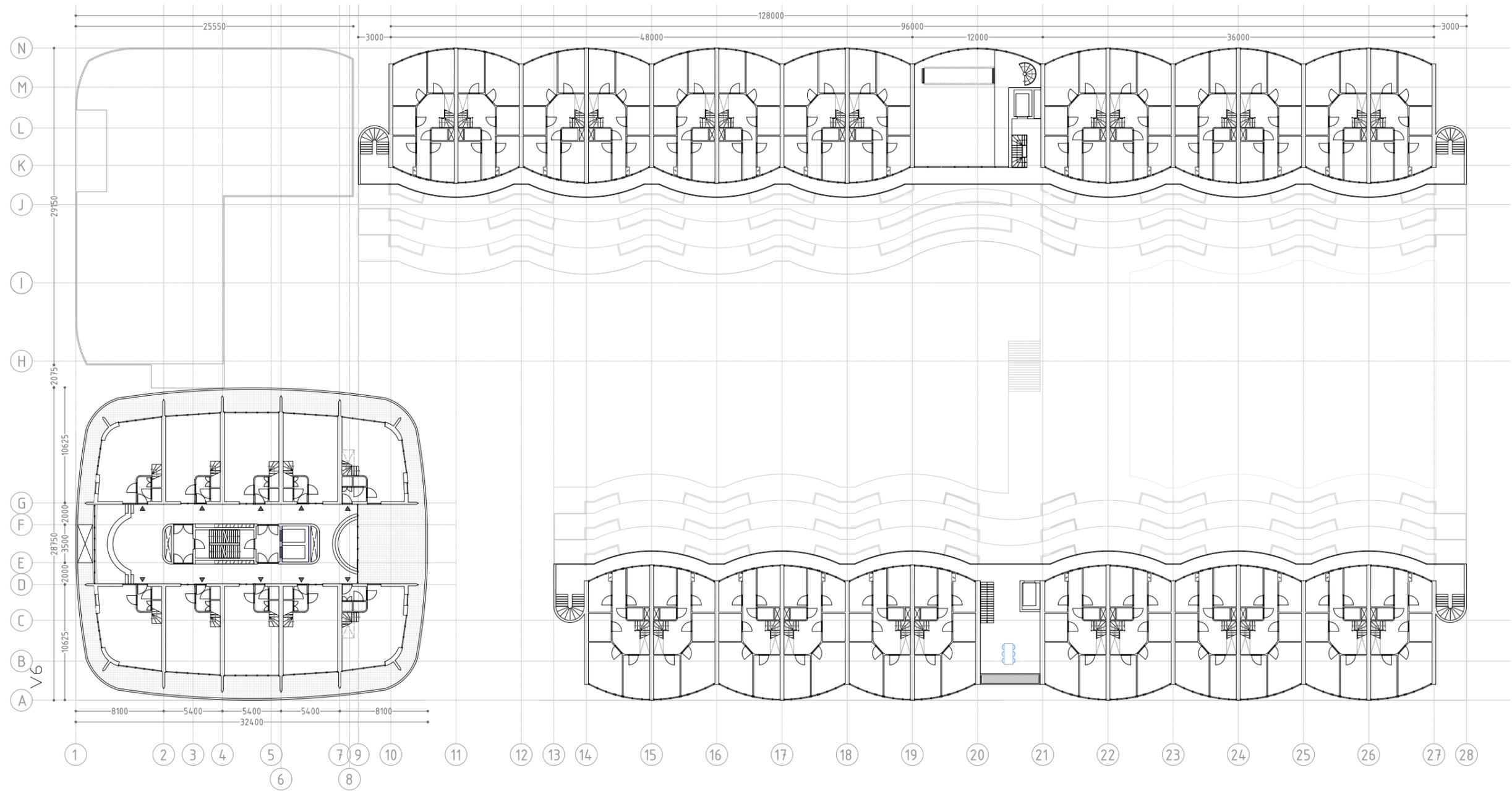
Floorplan Fourth Floor



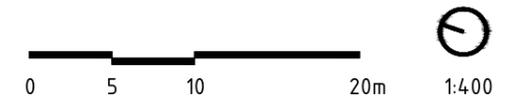
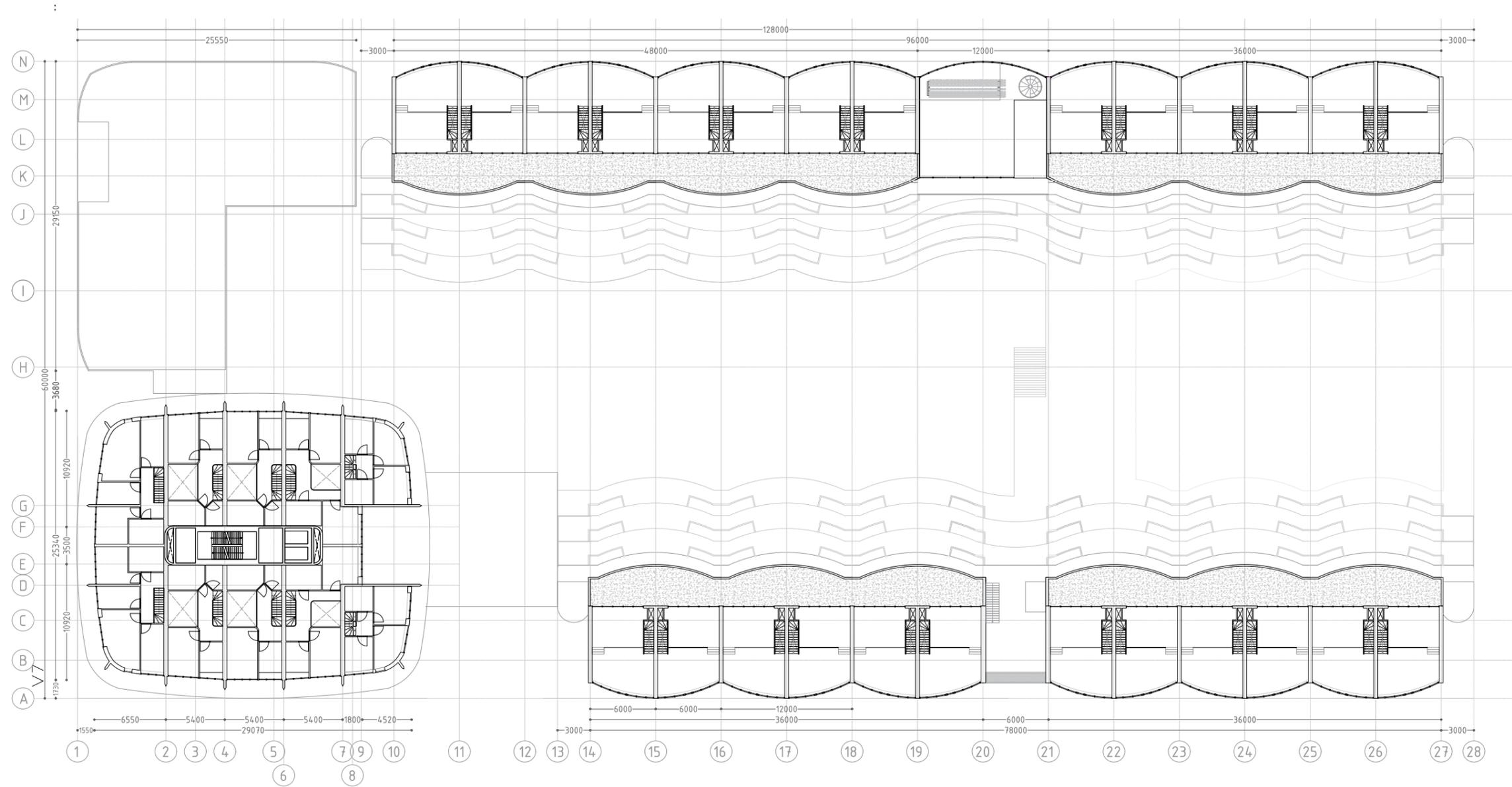
Floorplan Fifth Floor



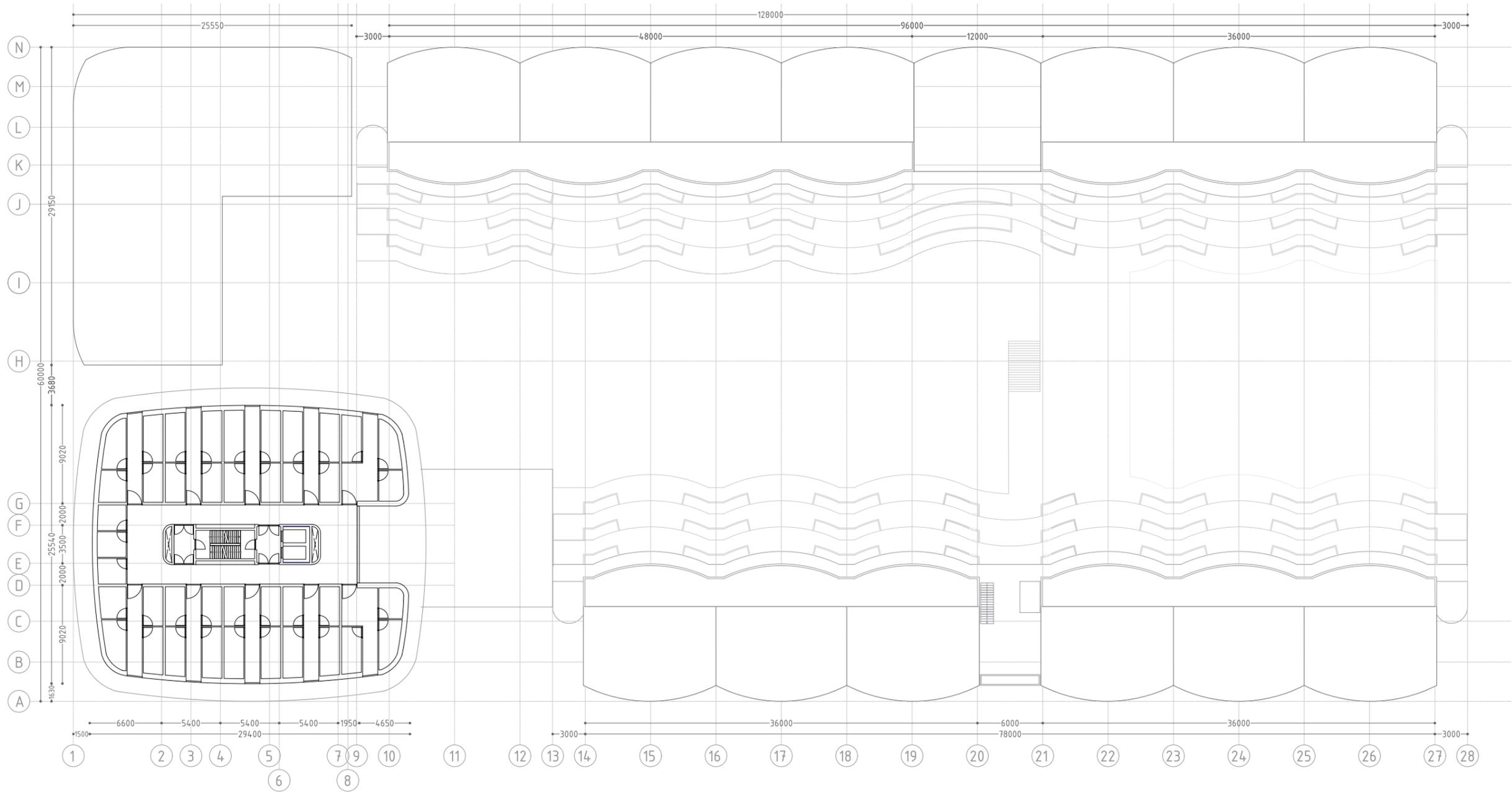
Floorplan Sixth Floor



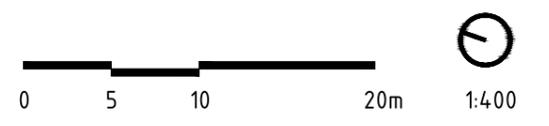
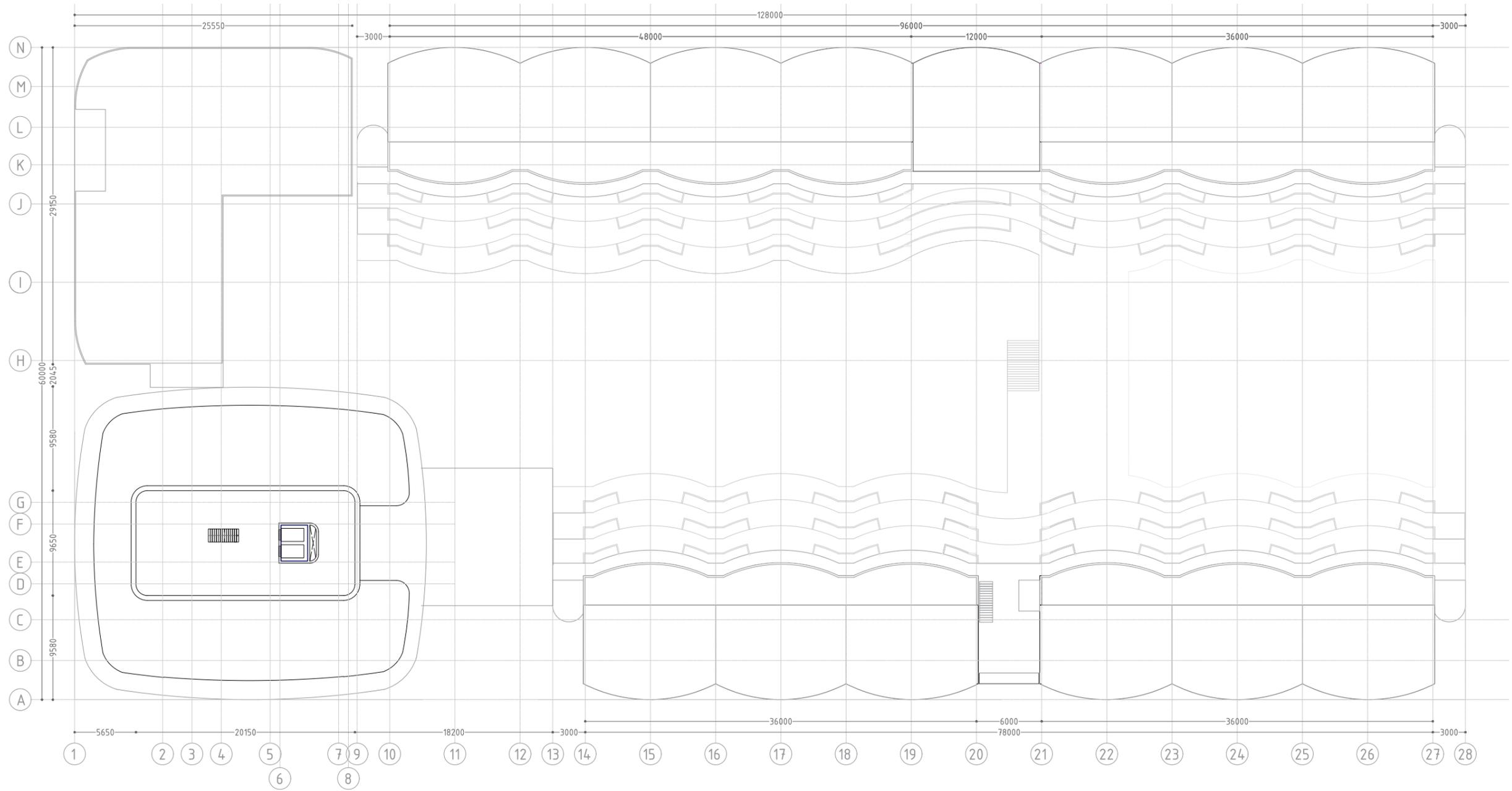
Floorplan Seventh Floor



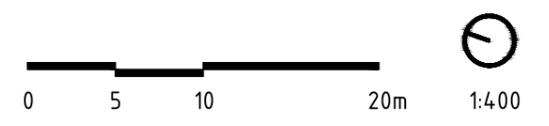
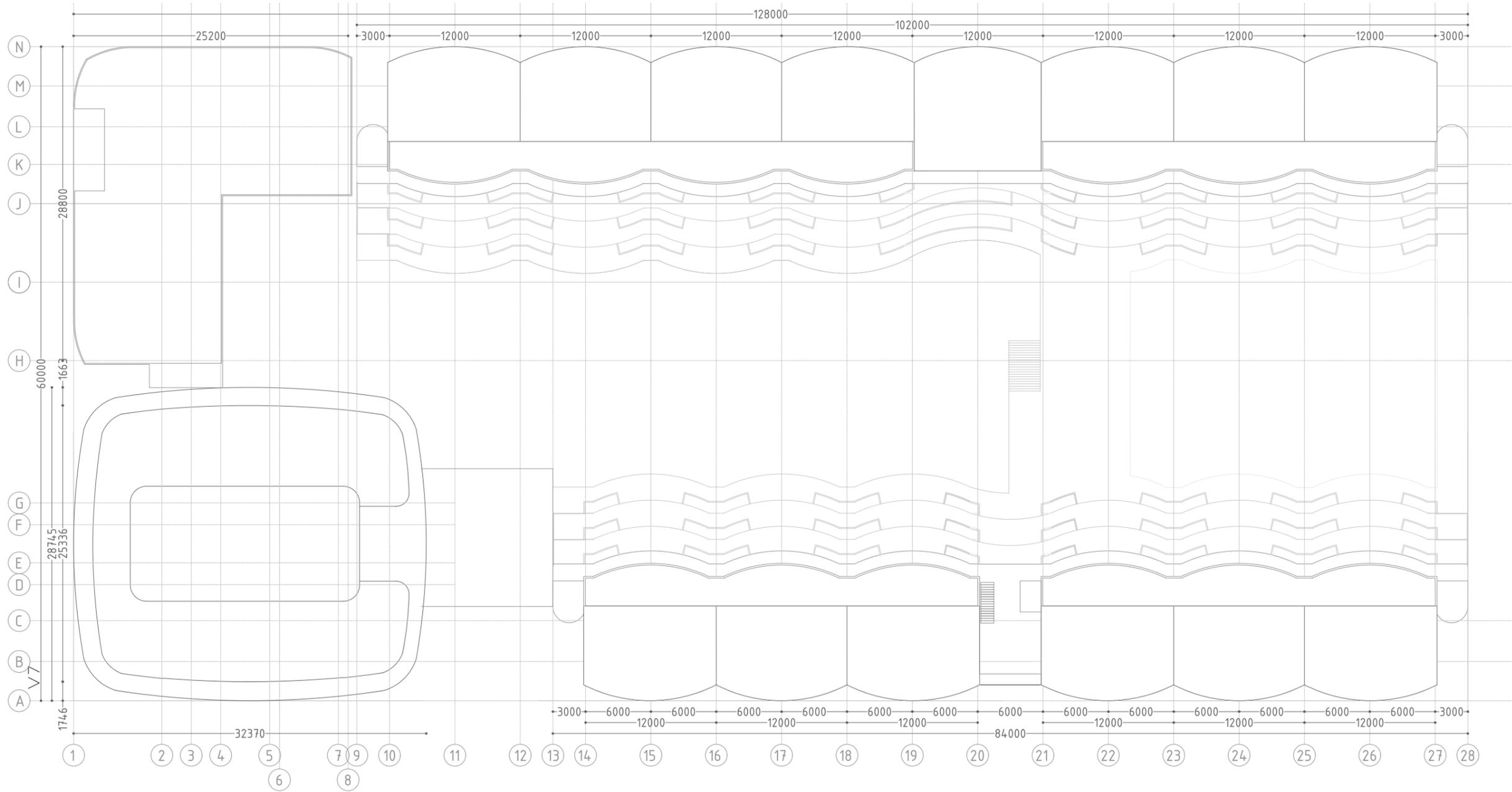
Floorplan Twentieth Floor



Floorplan Twentyfirst Floor

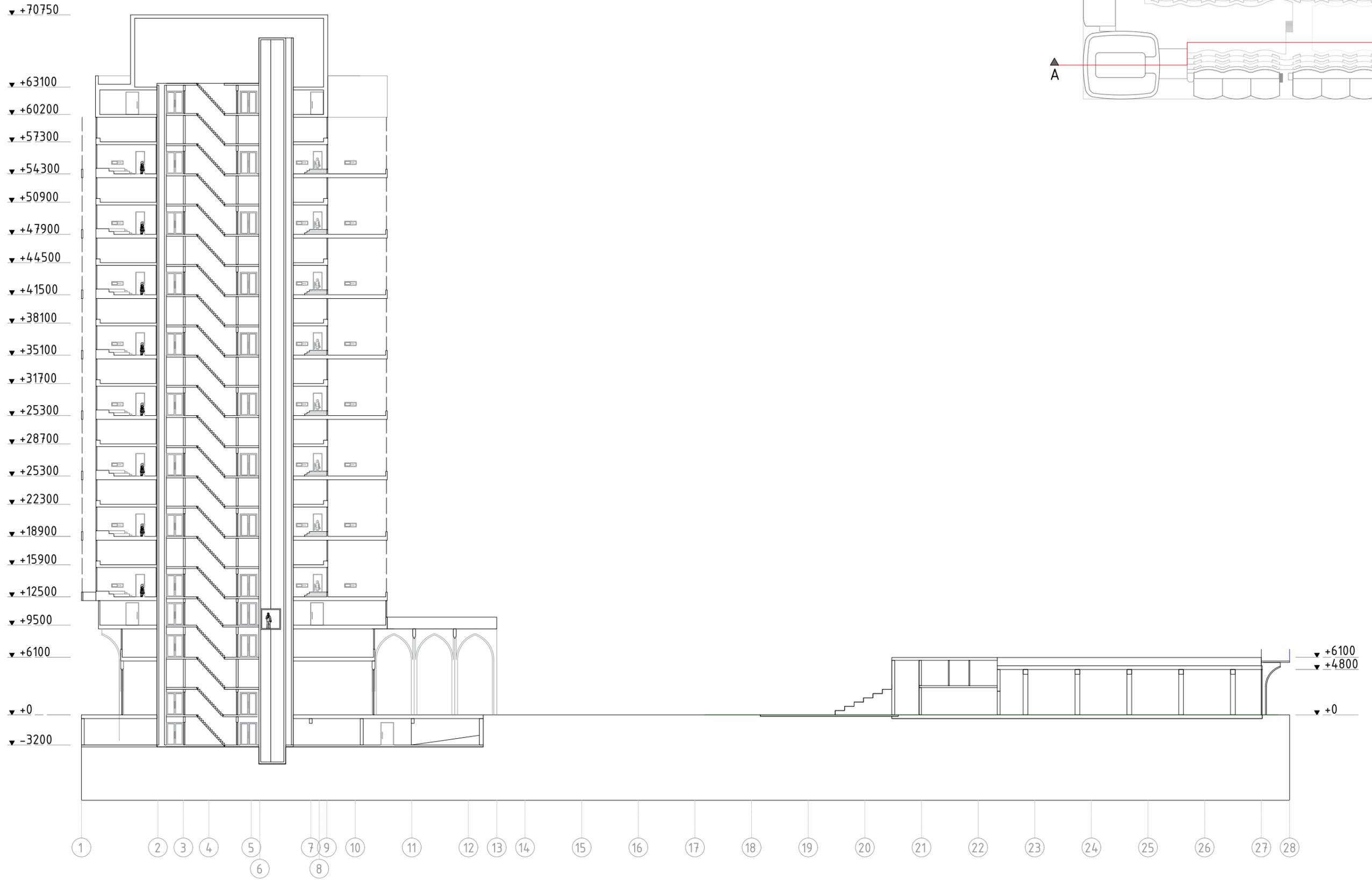


Floorplan Roof



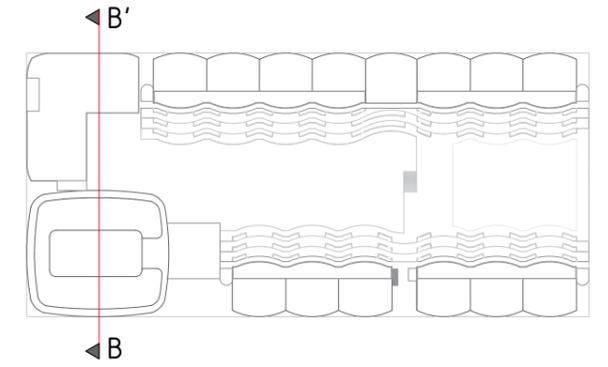
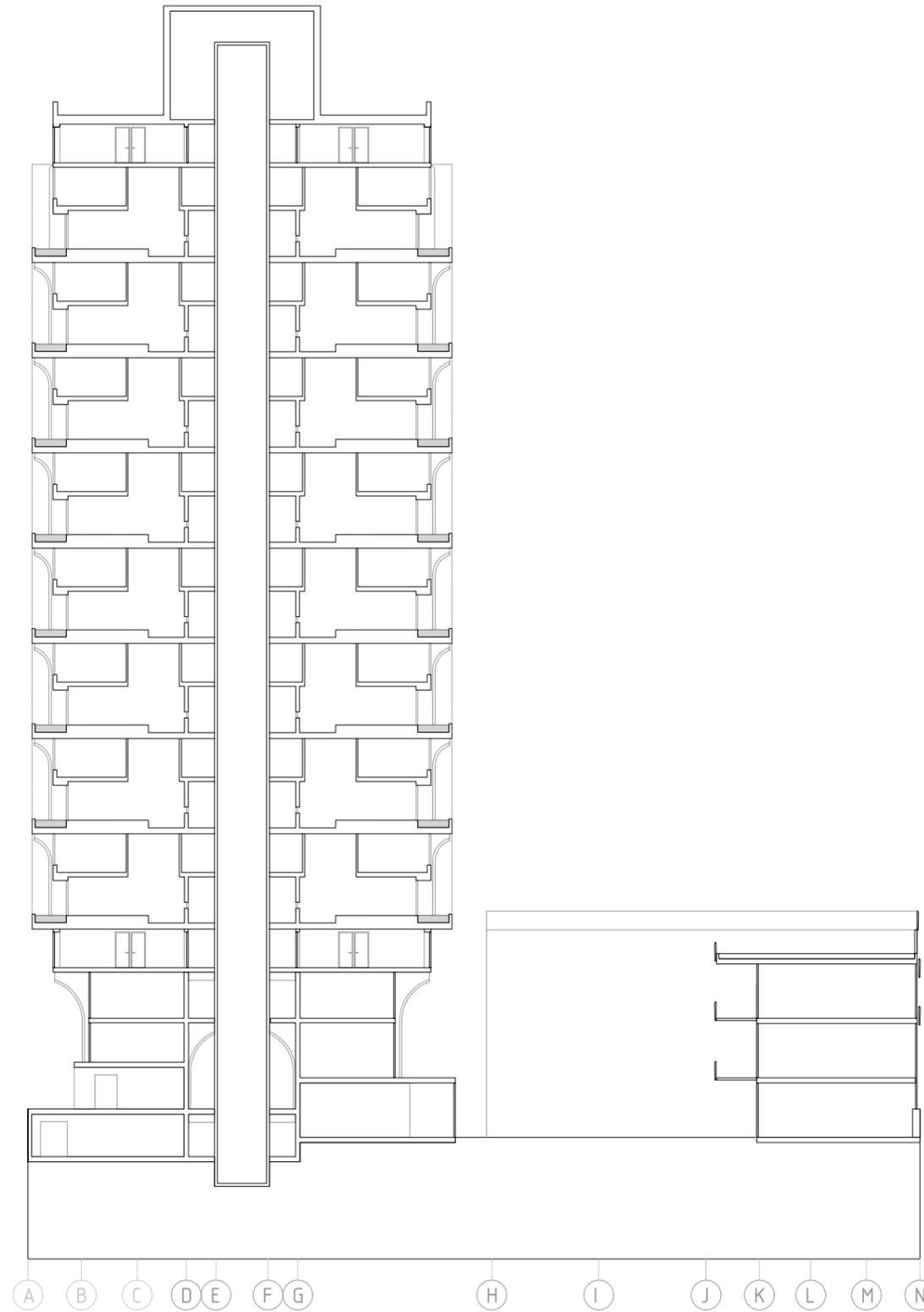
*s*ections

Section A-A'



Section B-B'

- ▼ +70750
- ▼ +63100
- ▼ +60200
- ▼ +57300
- ▼ +54300
- ▼ +50900
- ▼ +47900
- ▼ +44500
- ▼ +41500
- ▼ +38100
- ▼ +35100
- ▼ +31700
- ▼ +25300
- ▼ +28700
- ▼ +25300
- ▼ +22300
- ▼ +18900
- ▼ +15900
- ▼ +12500
- ▼ +9500
- ▼ +6100
- ▼ +3150
- ▼ +0
- ▼ -3200

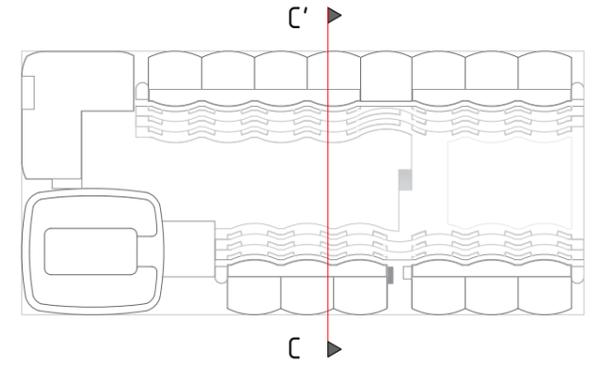


B

B'

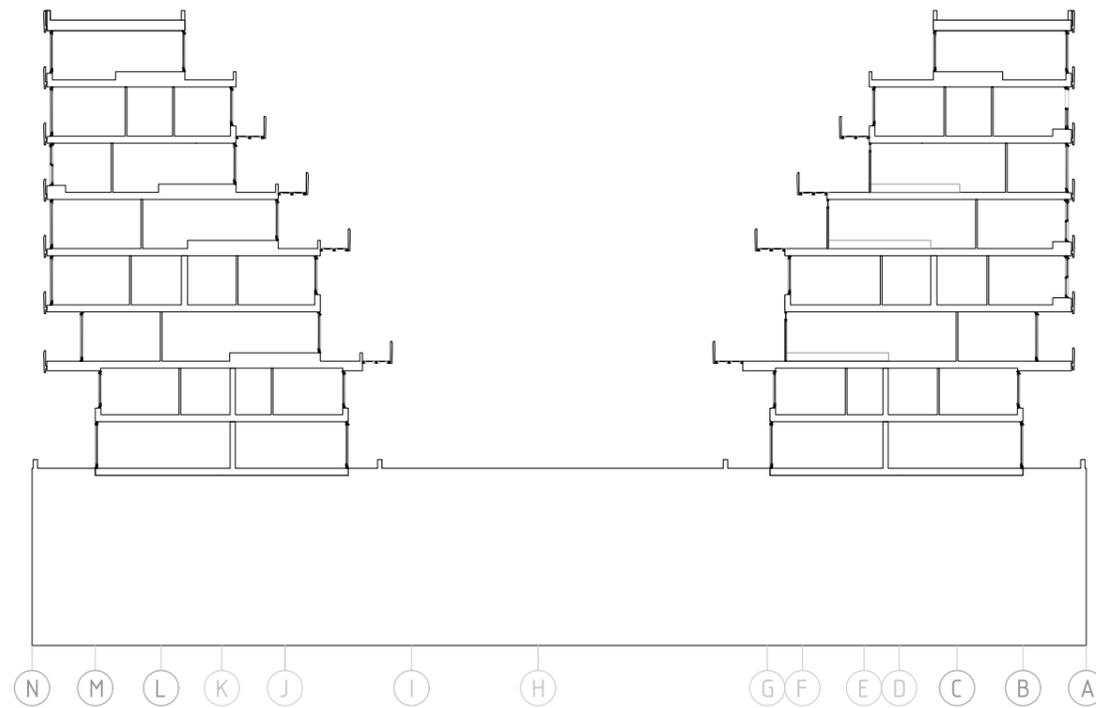


Section C-C'



- ▼ +26050
- ▼ +25500
- ▼ +22100
- ▼ +18900
- ▼ +15700
- ▼ +12500
- ▼ +9300
- ▼ +6100
- ▼ +3050
- ▼ +0

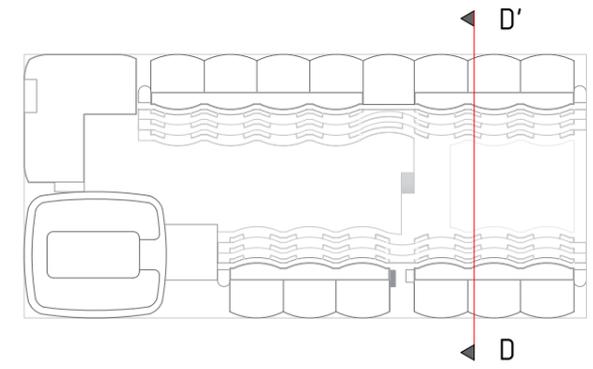
C



C'

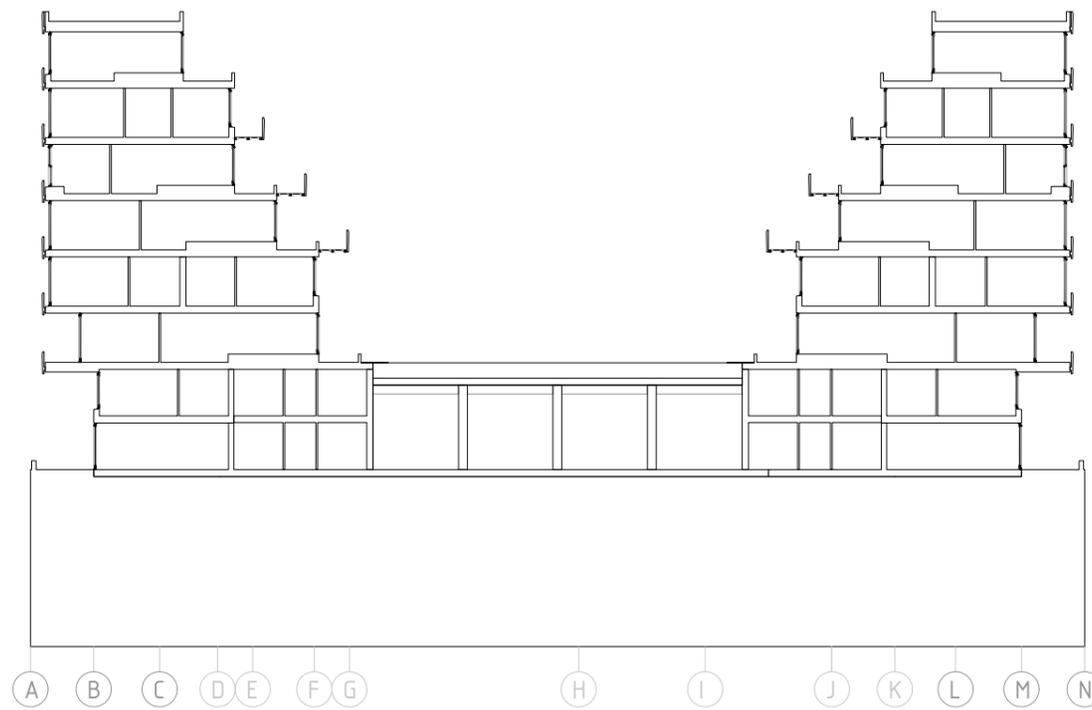


Section D-D'



- ▼ +26050
- ▼ +25500
- ▼ +22100
- ▼ +18900
- ▼ +15700
- ▼ +12500
- ▼ +9300
- ▼ +6100
- ▼ +3050
- ▼ +0

D



D'



Facades

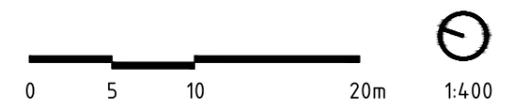
North Facade



East Facade



South Facade



West Facade

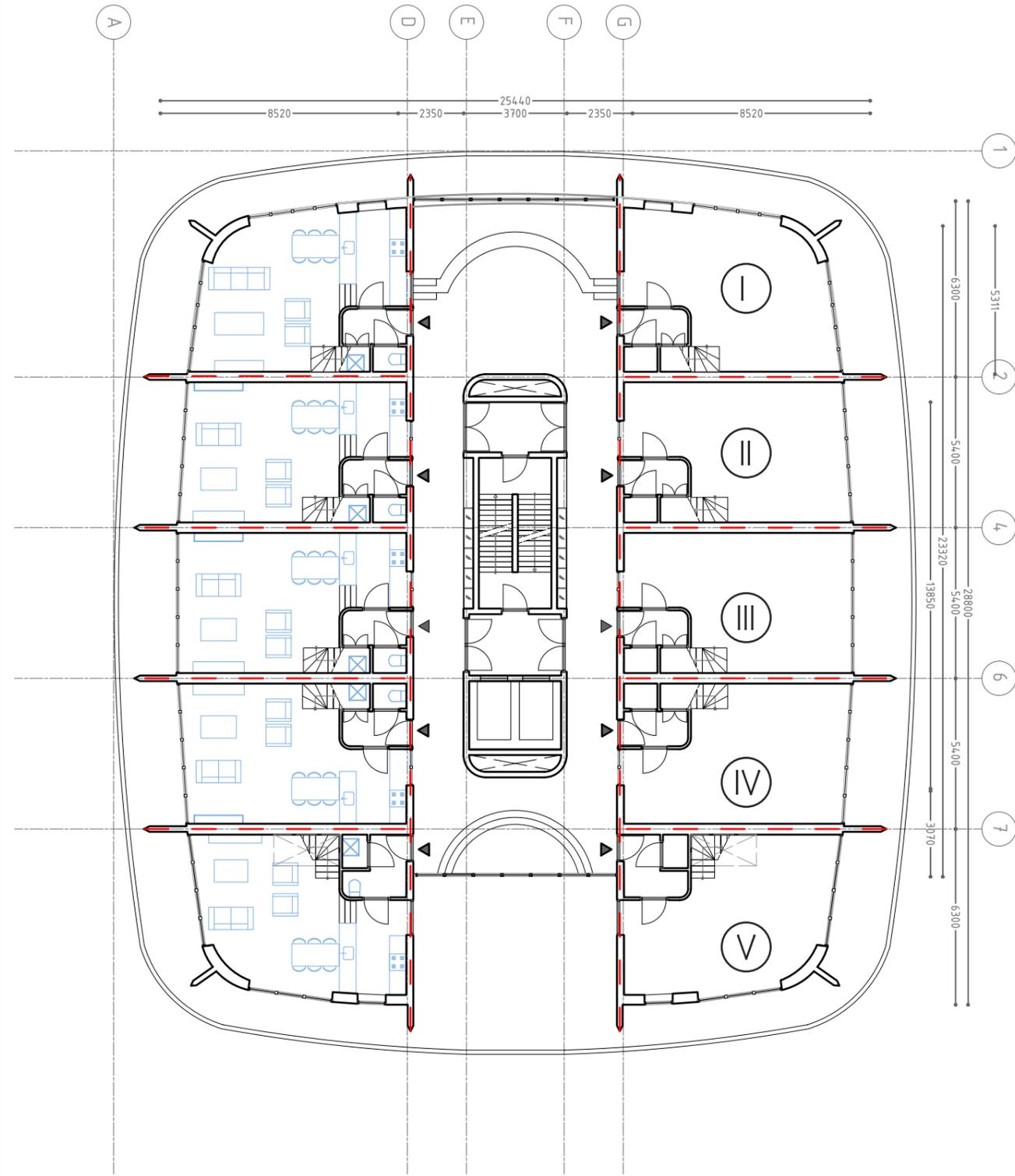


Floorplans Dwellings Residential Tower

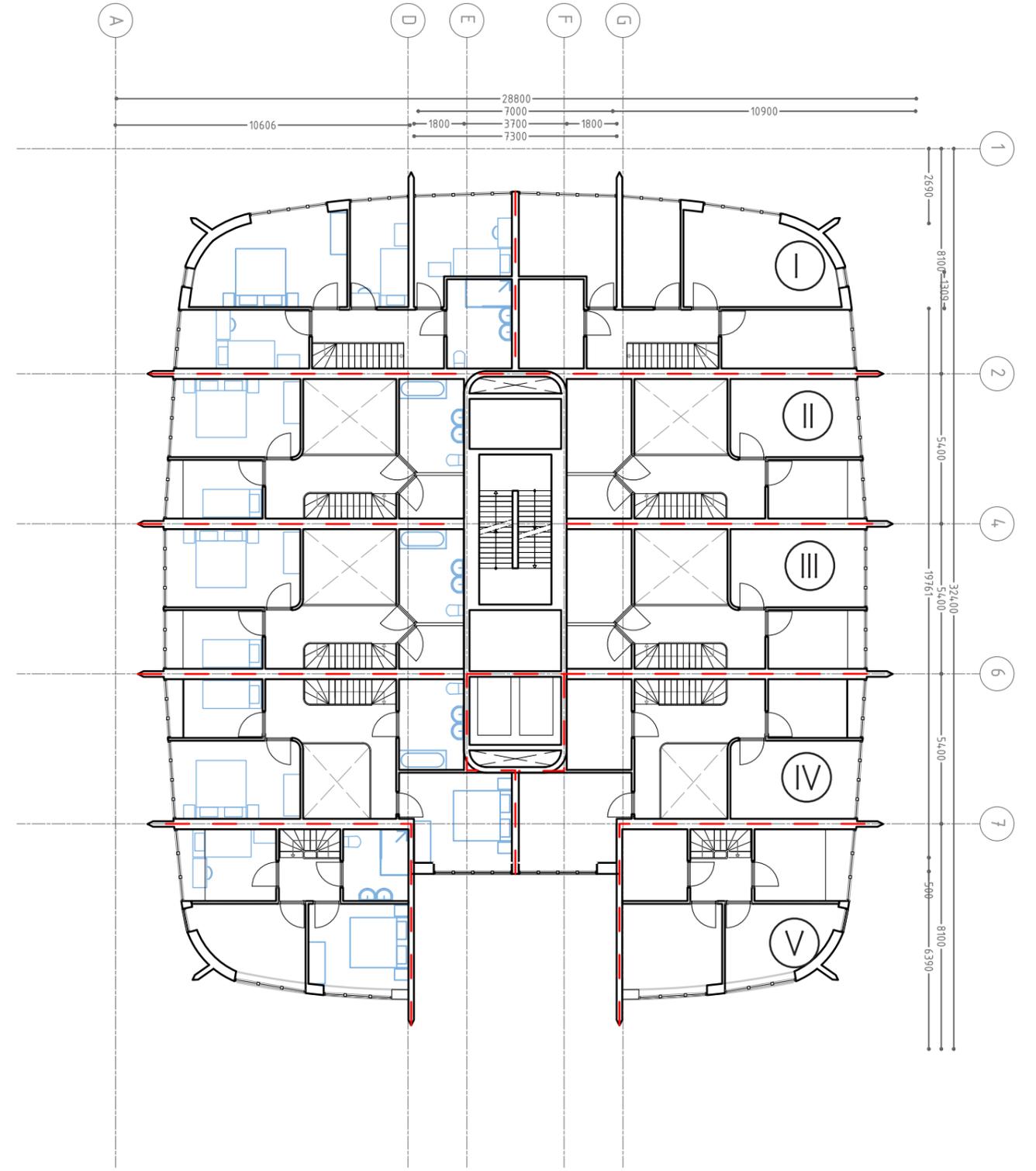


Floorplans Residential Tower 1:200

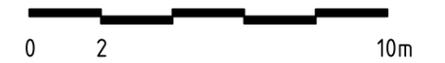
Fourth Floor



Fifth Floor



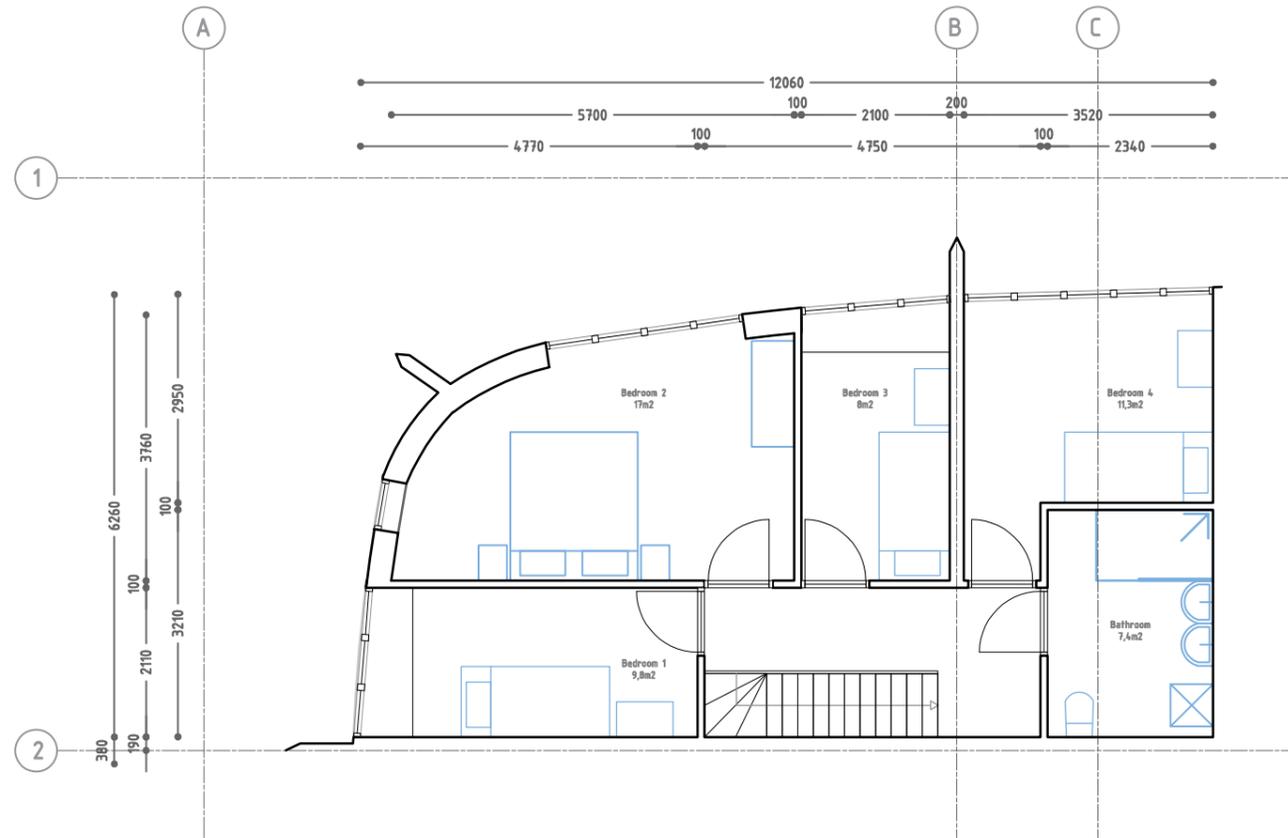
Residential Building



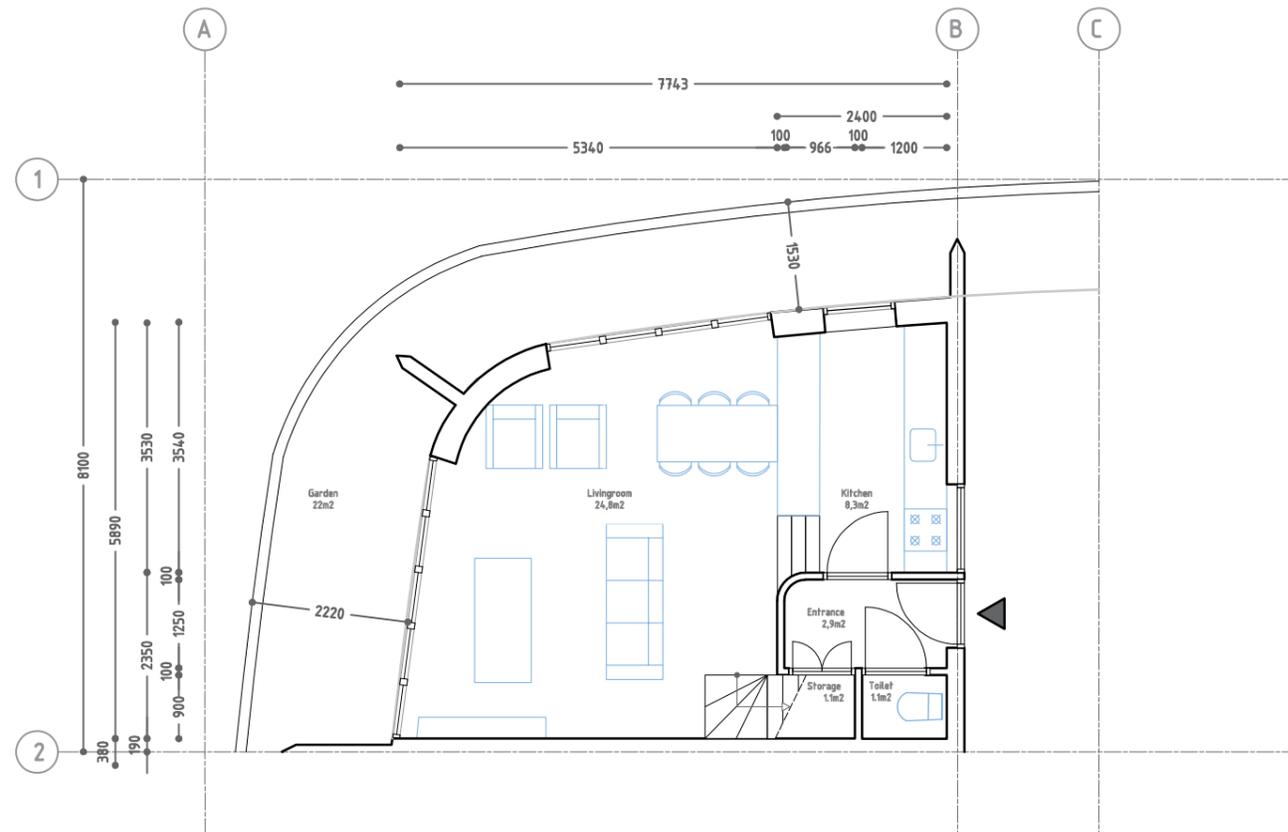
1:200

Dwelling Type I

First Floor



Ground Floor



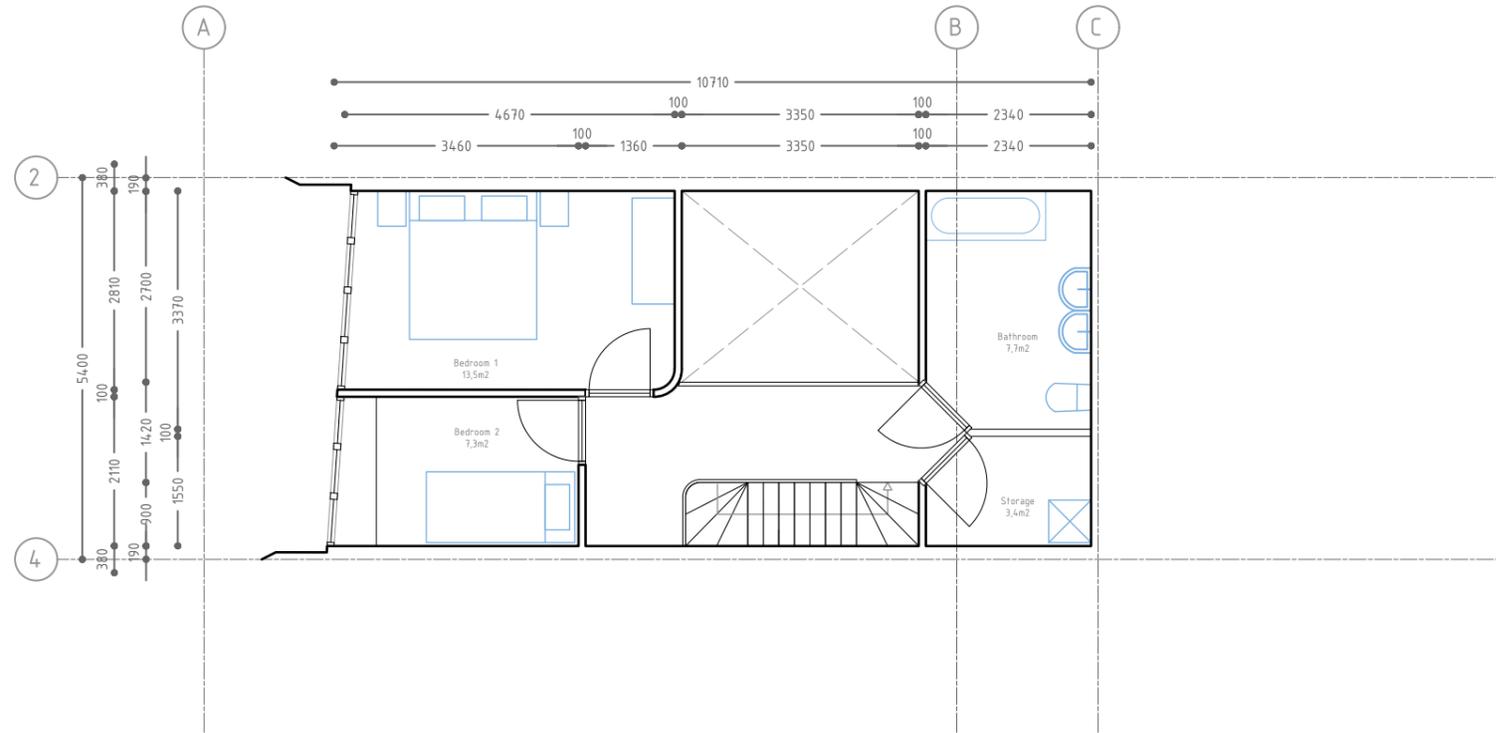
Type 1 105 sqm 4 bedroom



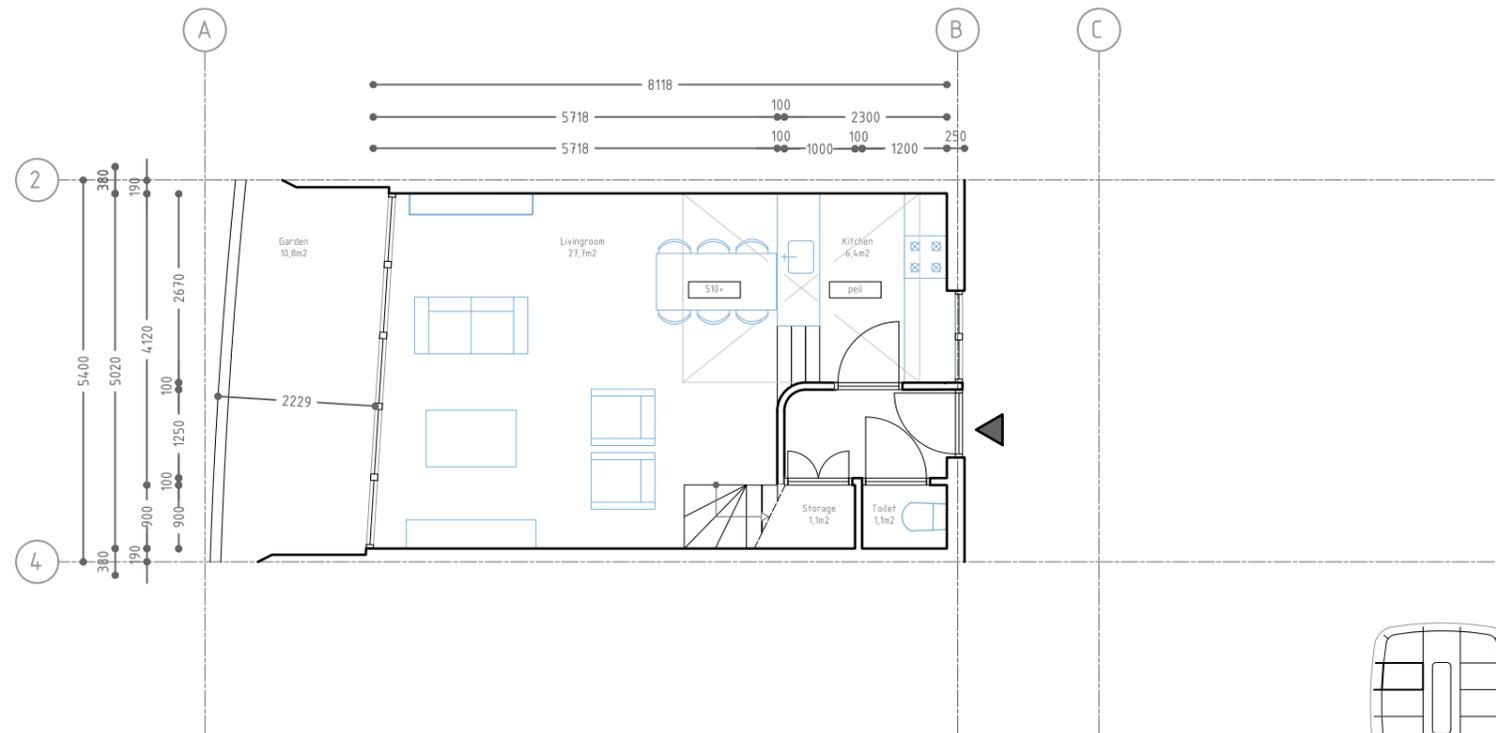
1:100

Dwelling Type II

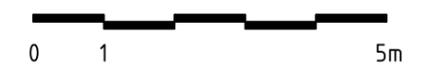
First Floor



Ground Floor



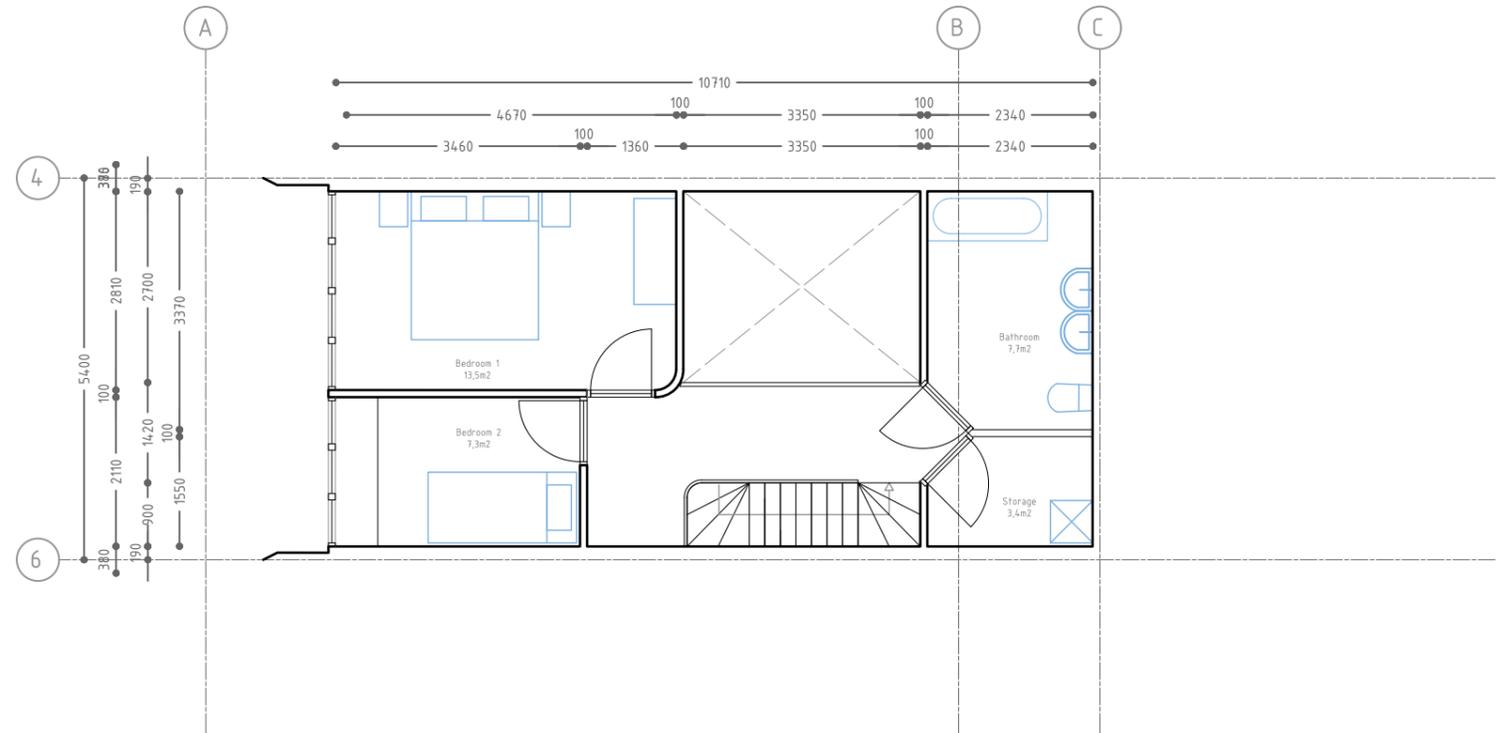
Type 2 84 sqm 2 bedroom



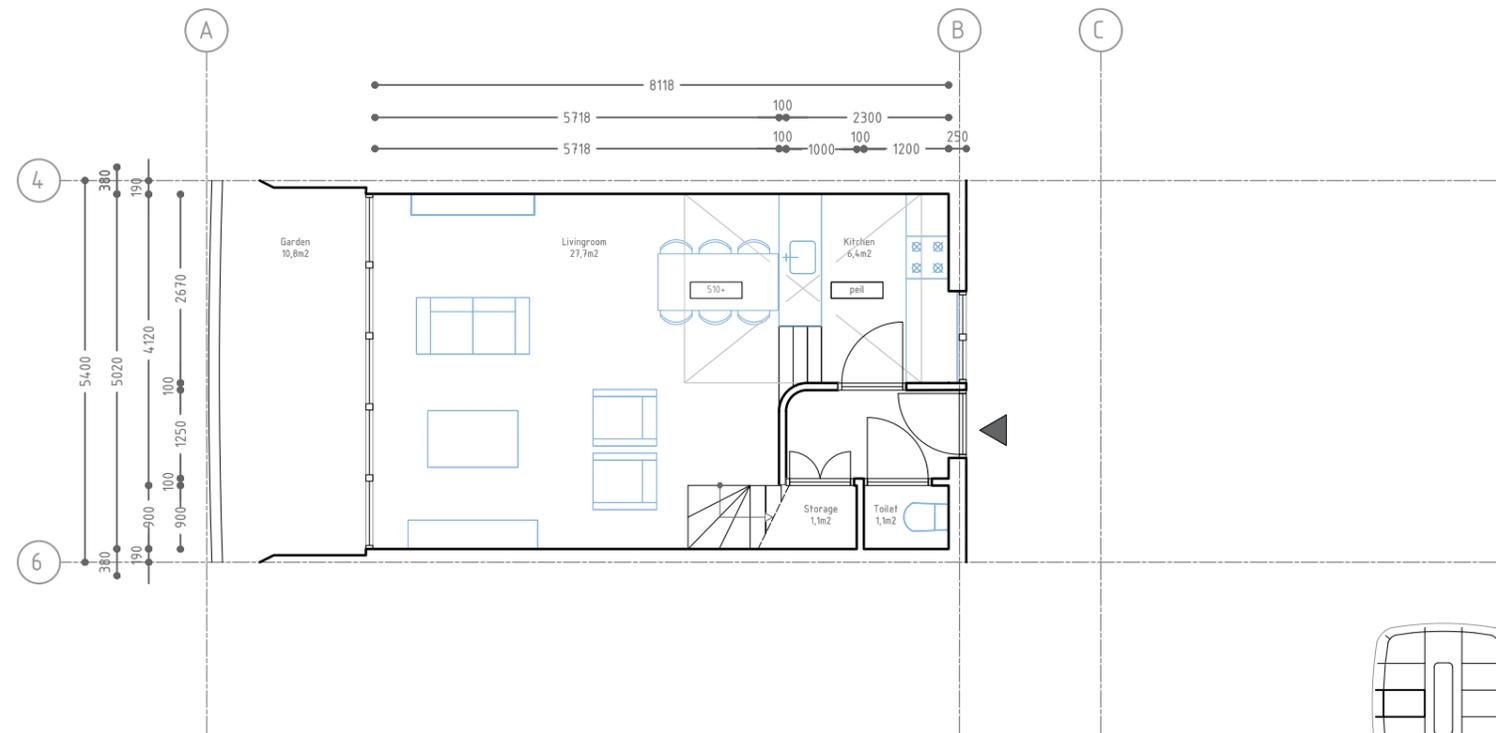
1:100

Dwelling Type III

First Floor

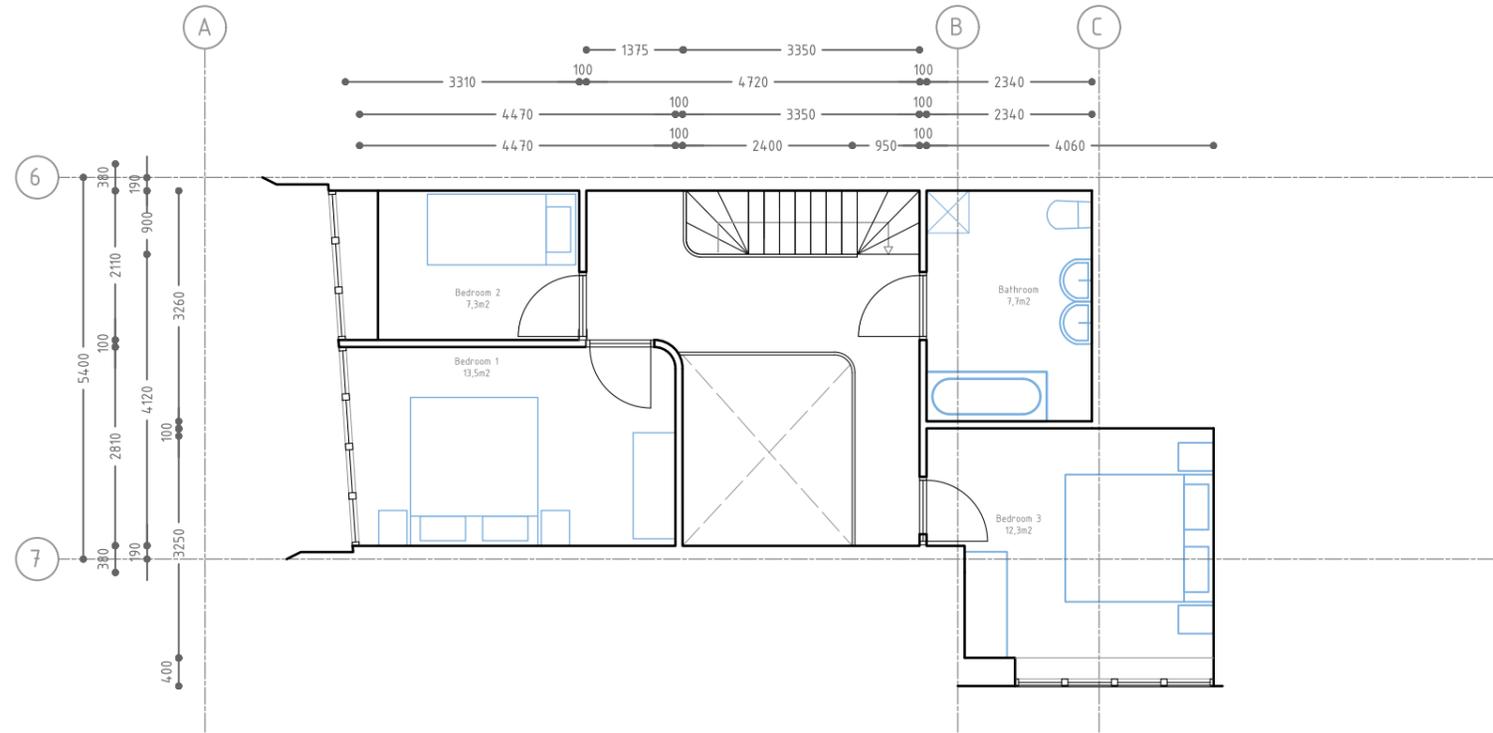


Ground Floor

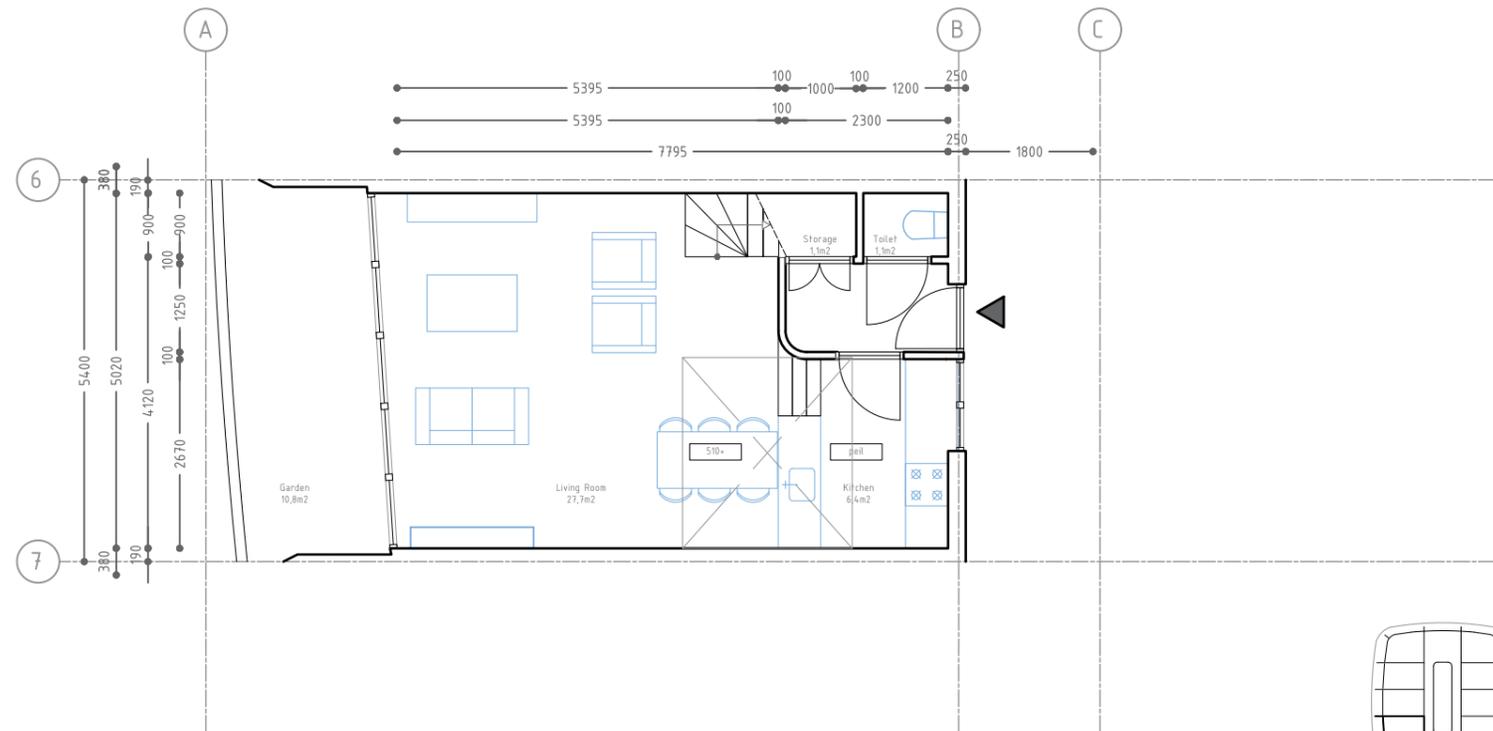


Dwelling Type IV

First Floor

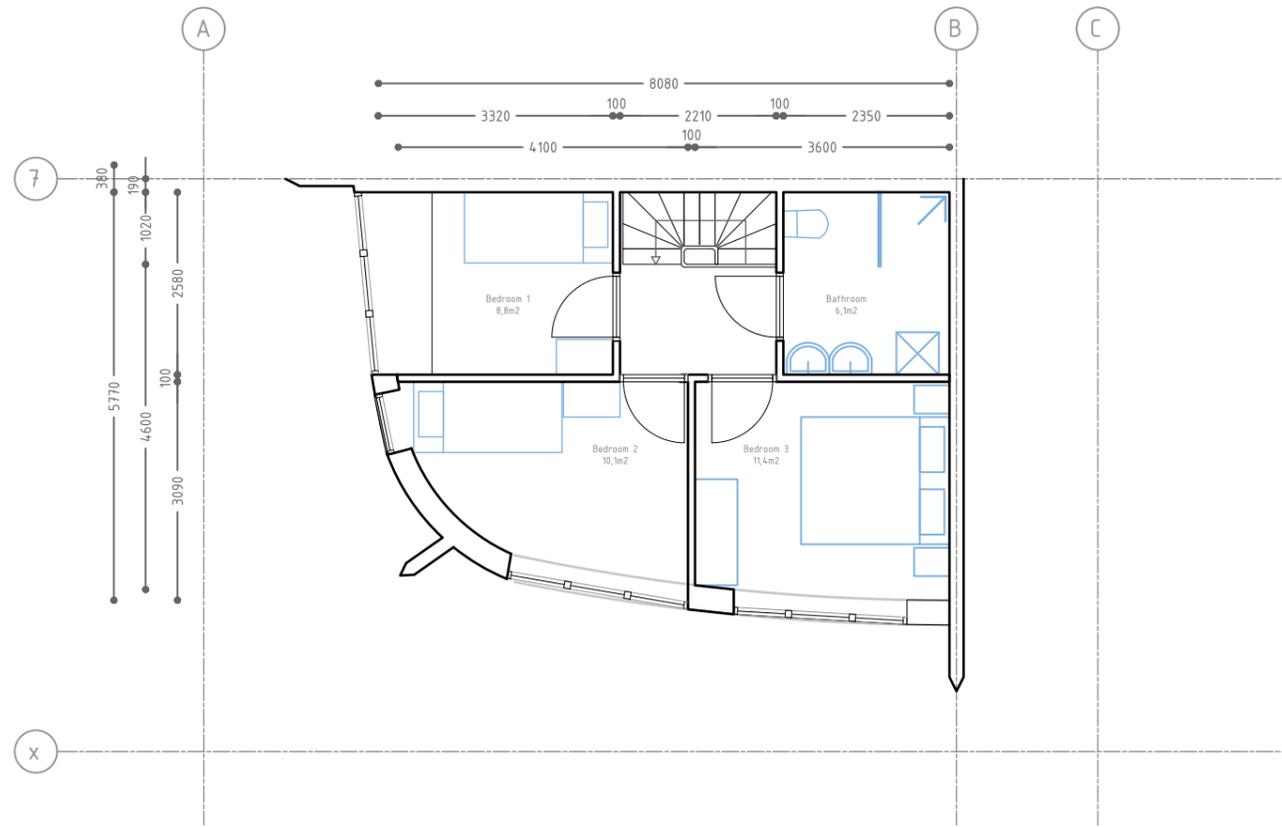


Ground Floor

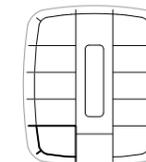
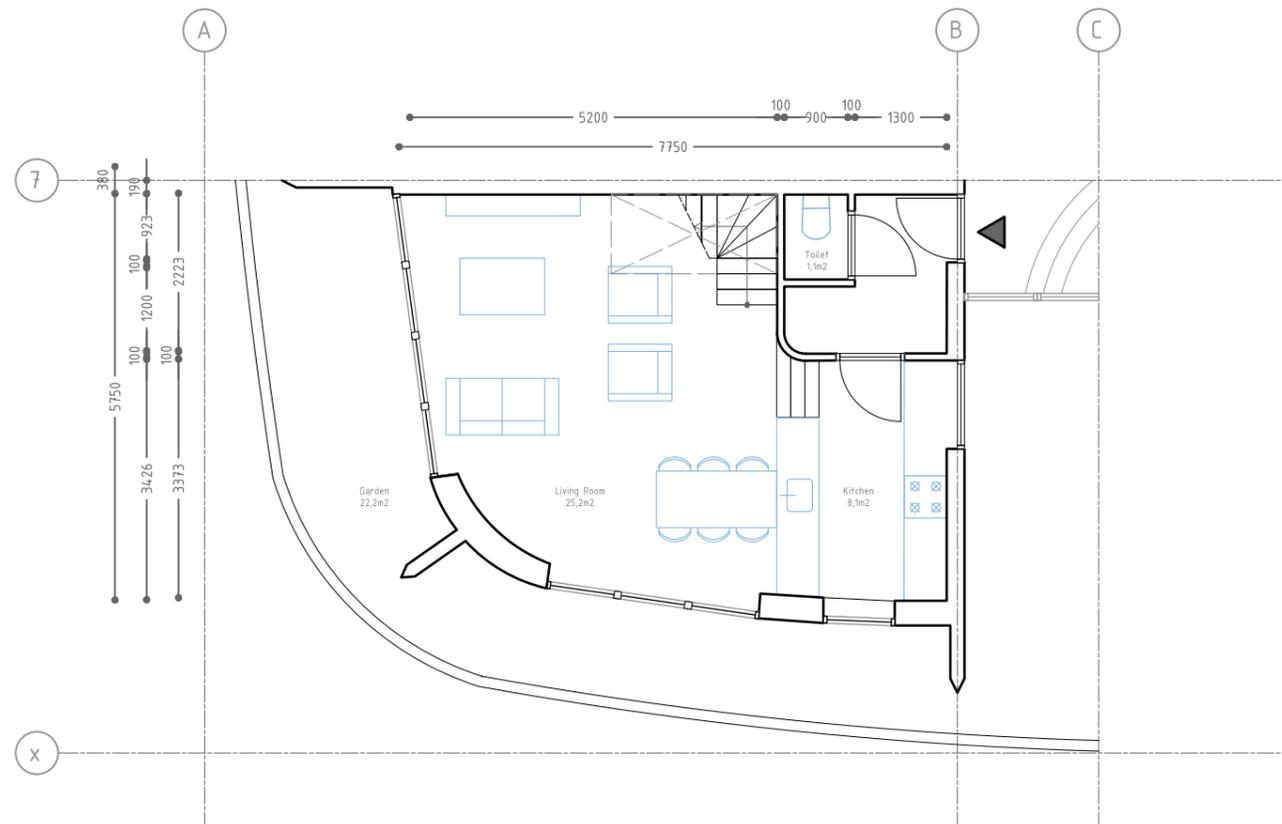


Dwelling Type V

First Floor



Ground Floor



Type 5 81 sqm 3 bedroom



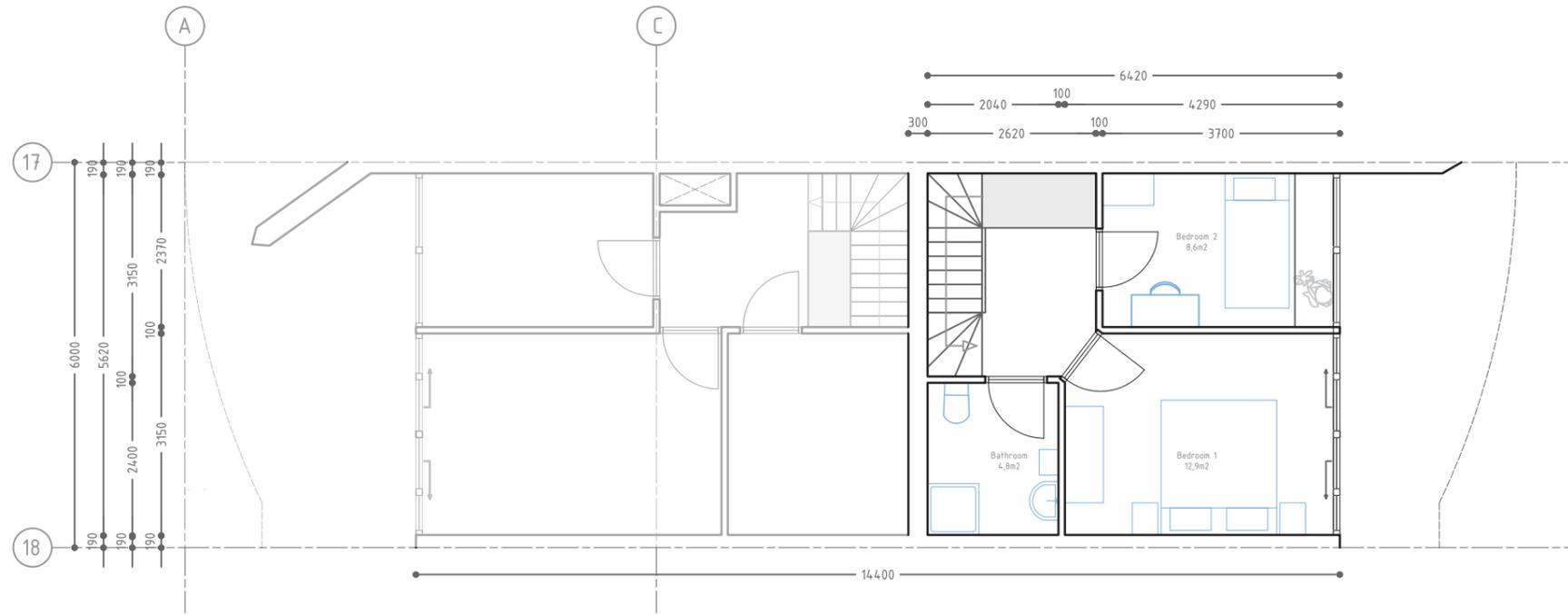
1:100

Floorplans Dwellings Apartment building

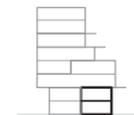
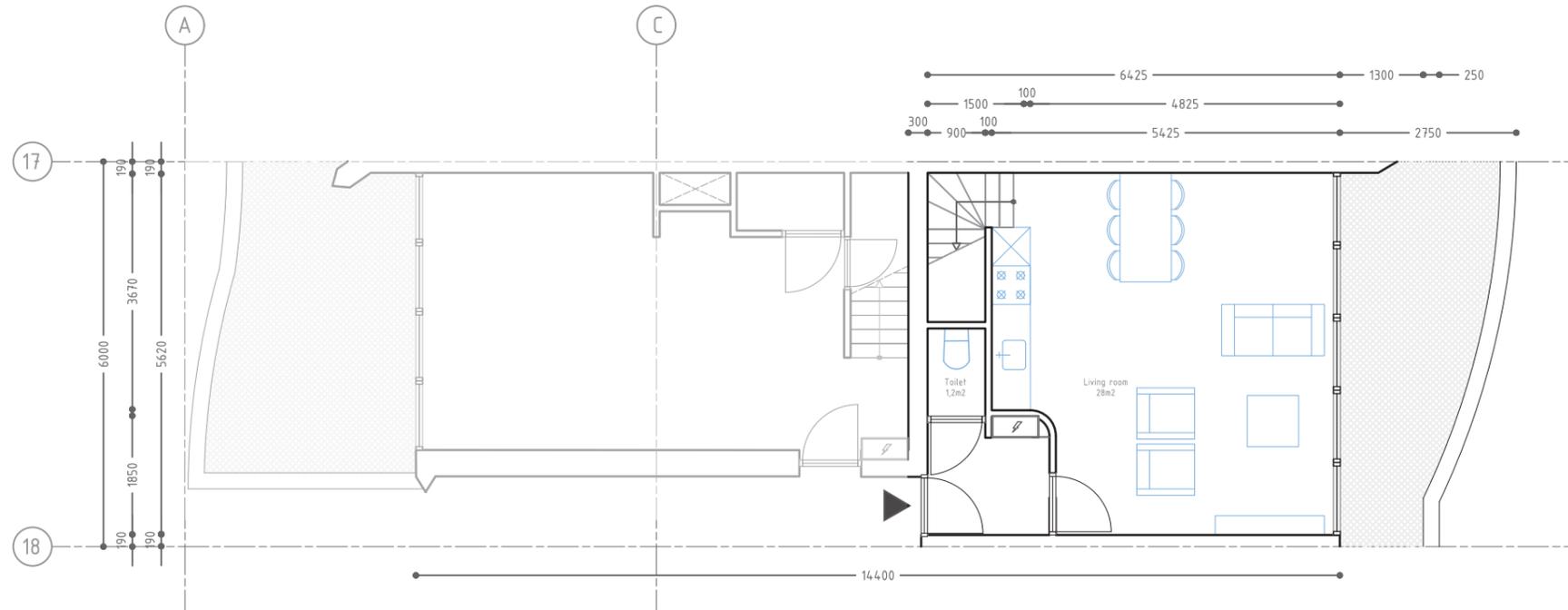


Dwelling Type VI

First Floor

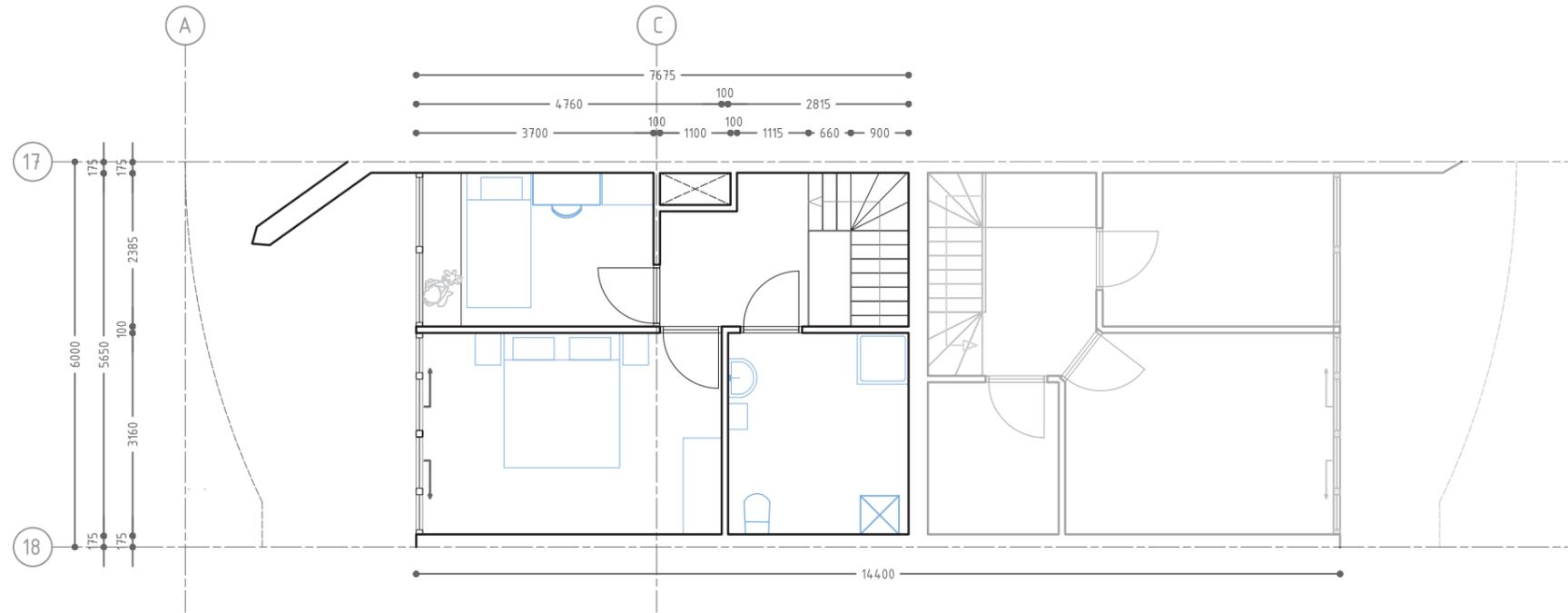


Ground Floor

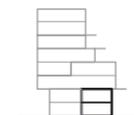
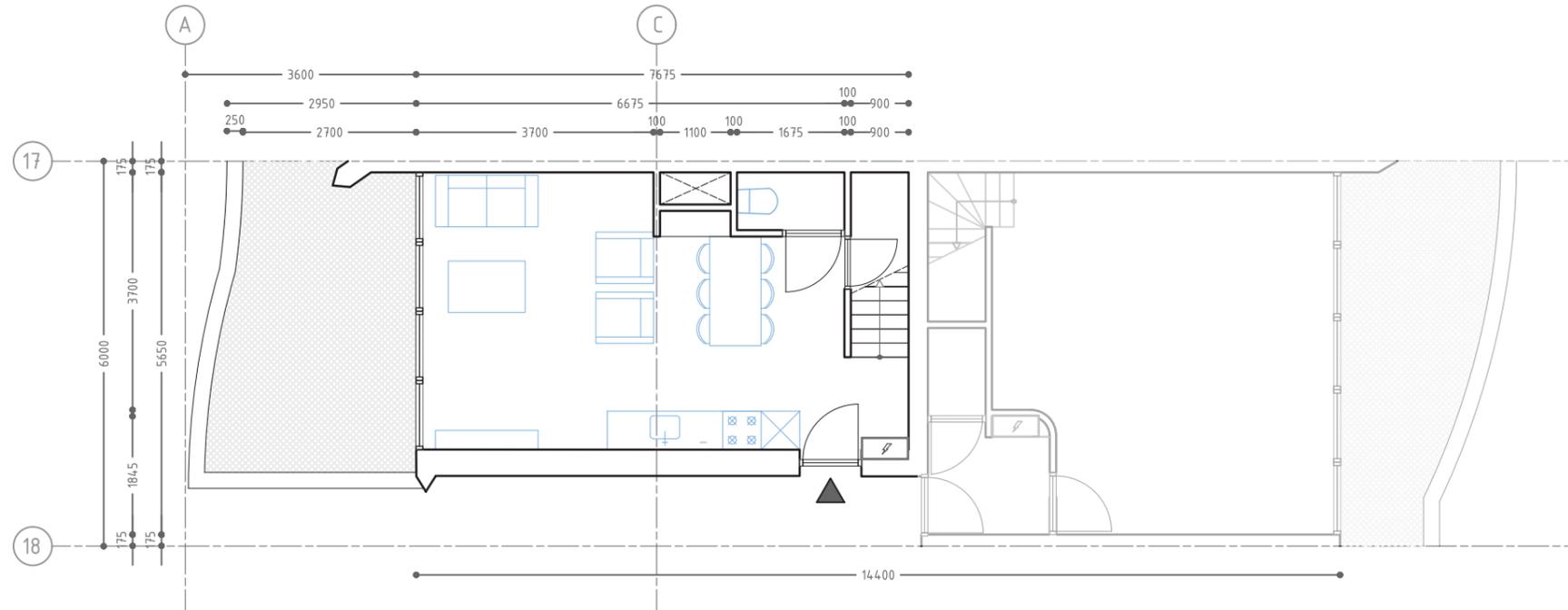


Dwelling Type VII

First Floor



Ground Floor

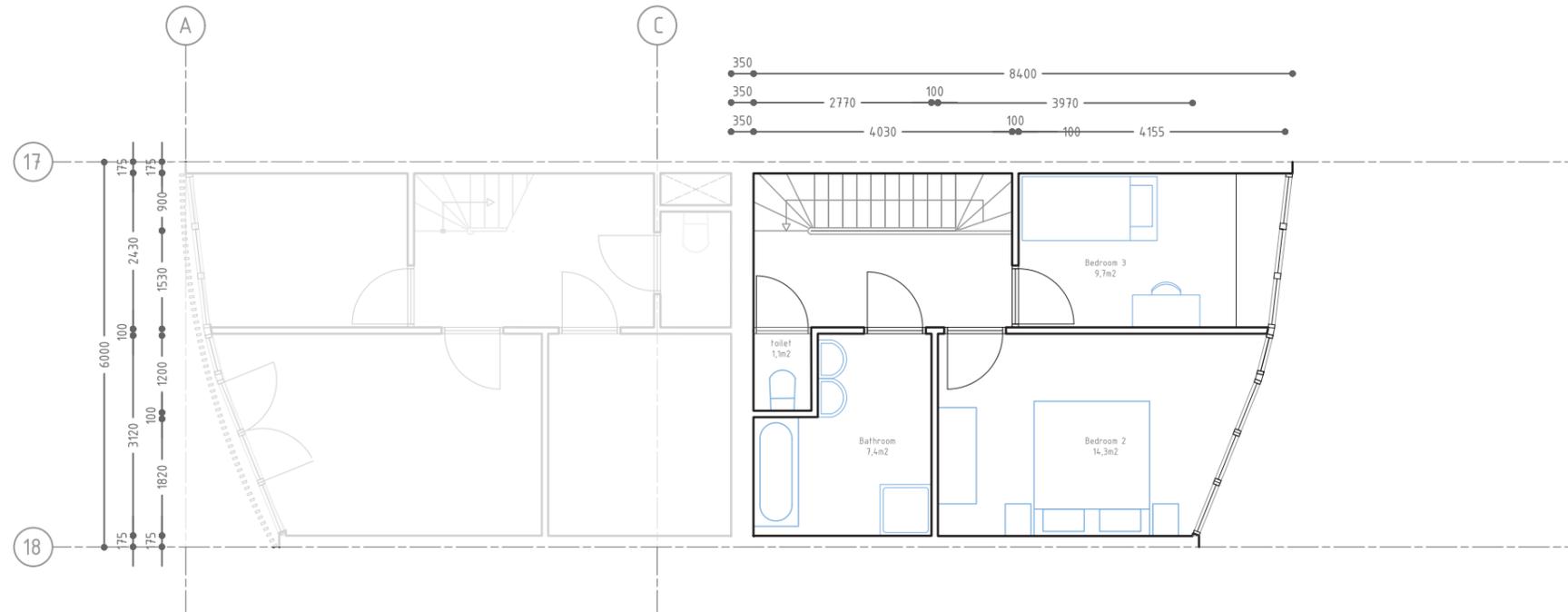


Type 7 74sqm 2 bedroom

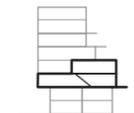
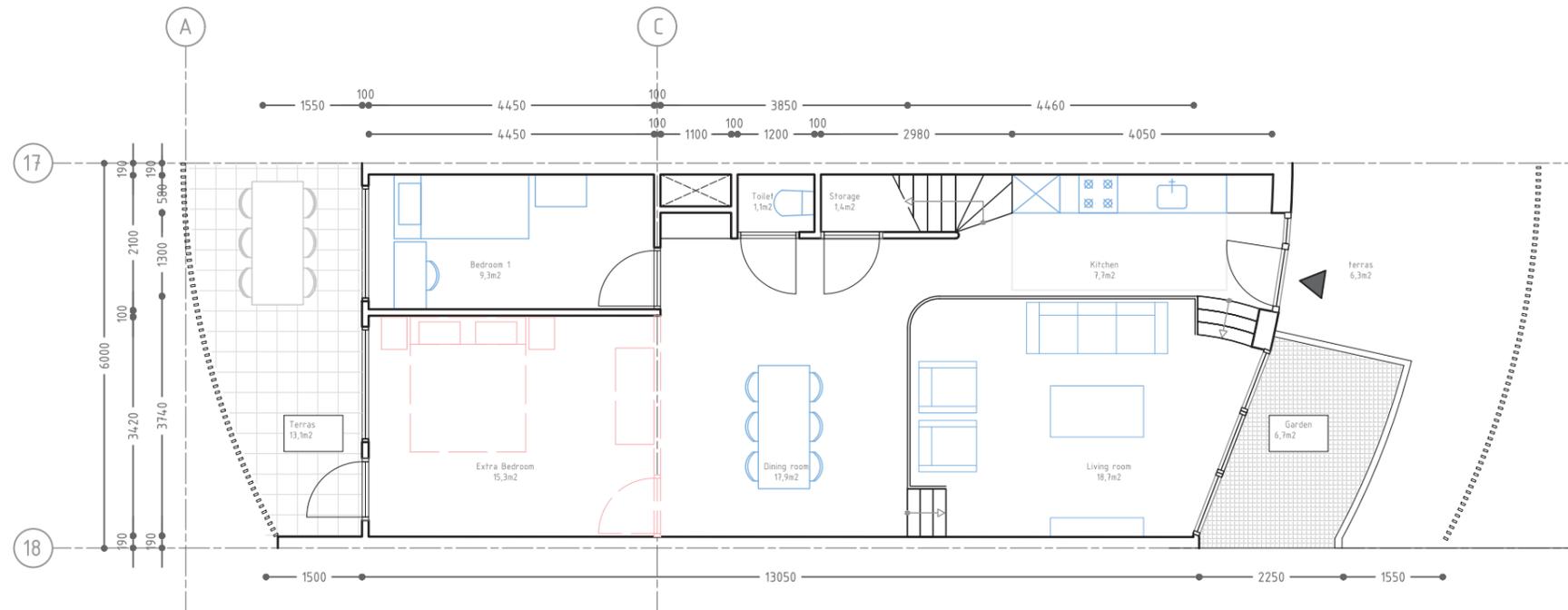


Dwelling Type VIII

Third Floor



Second Floor



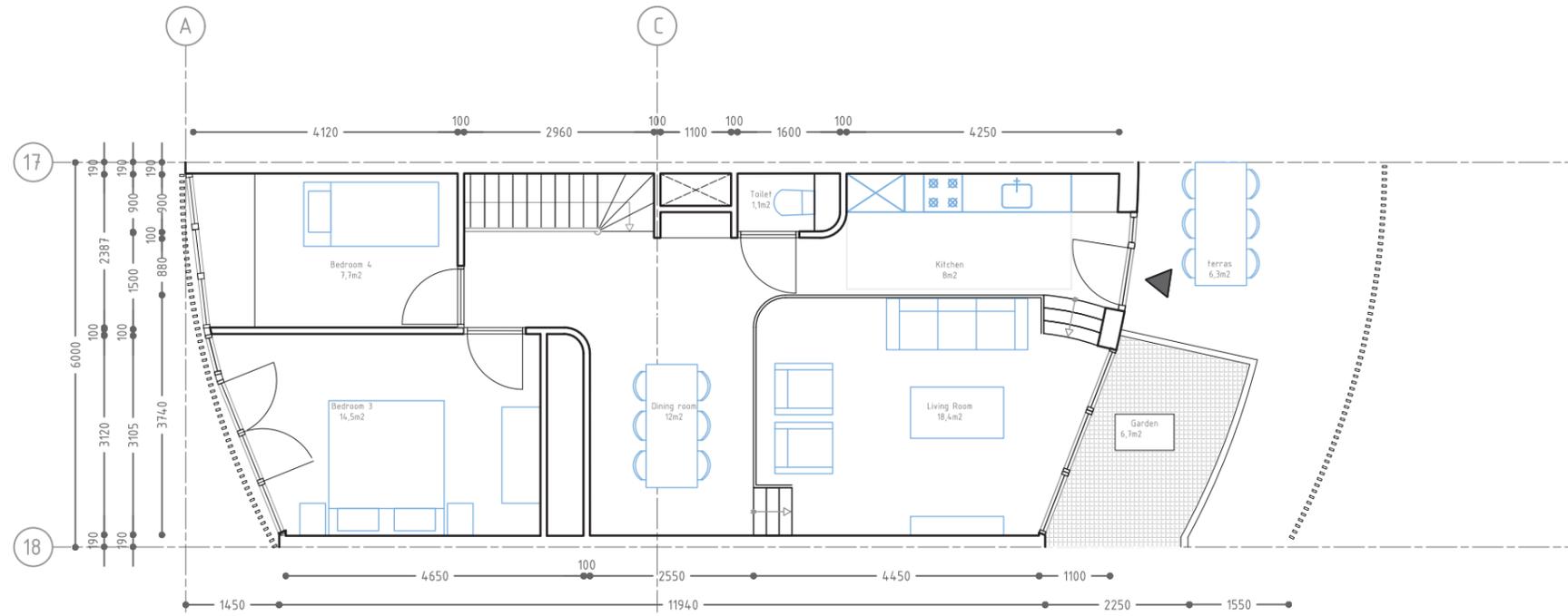
Type 8 121sqm 3/4 bedroom



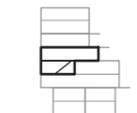
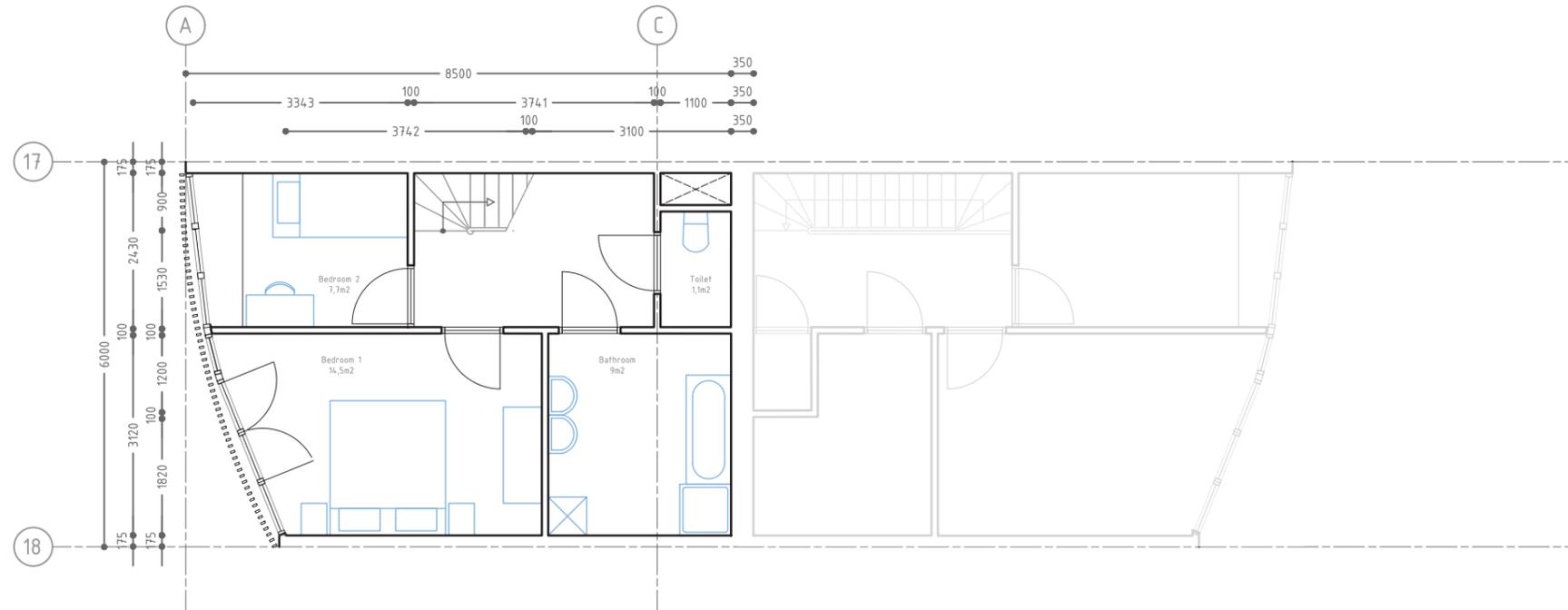
1:100

Dwelling Type IX

Fourth Floor



Third Floor

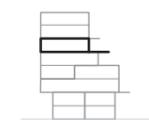
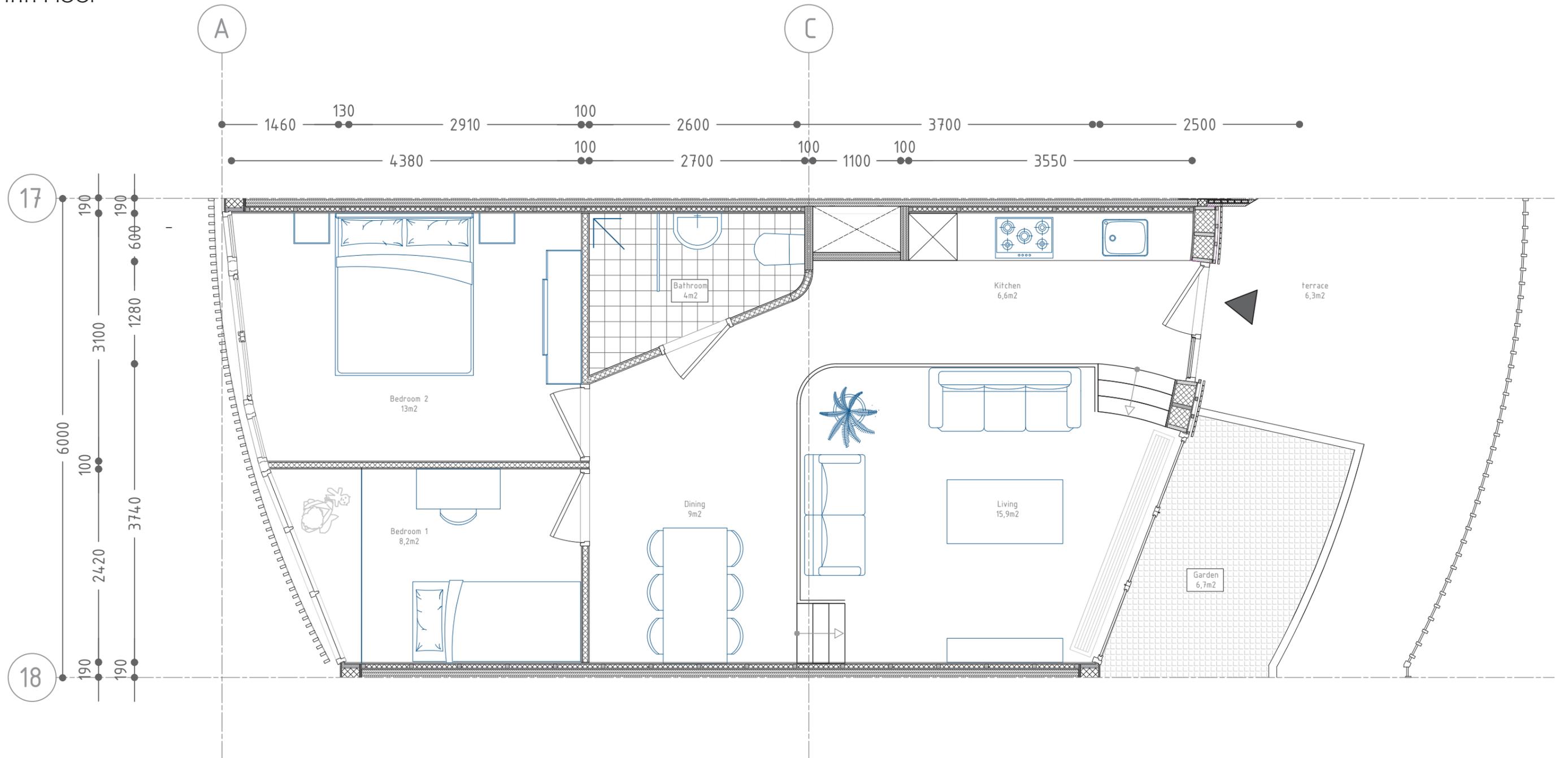


Type 9 120sqm 4 bedroom



Dwelling Type X

Fifth Floor



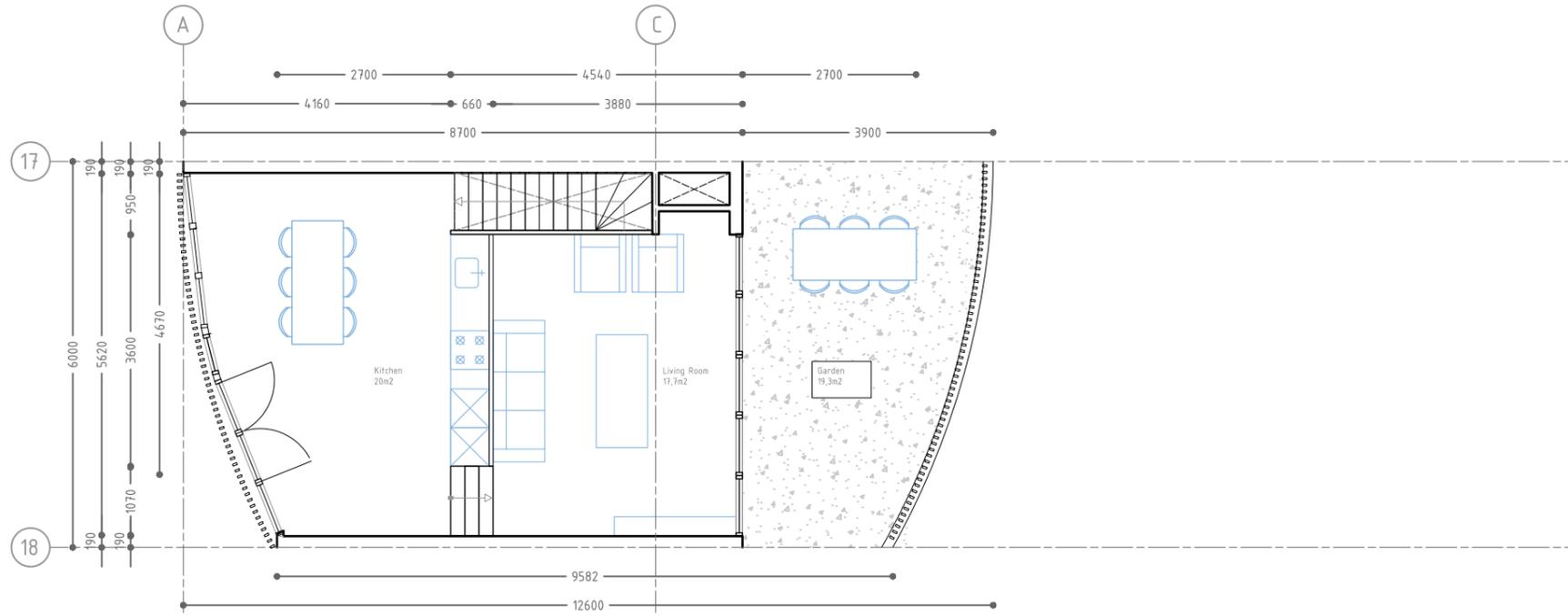
Type 5 62sqm 2 bedroom



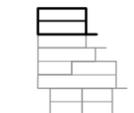
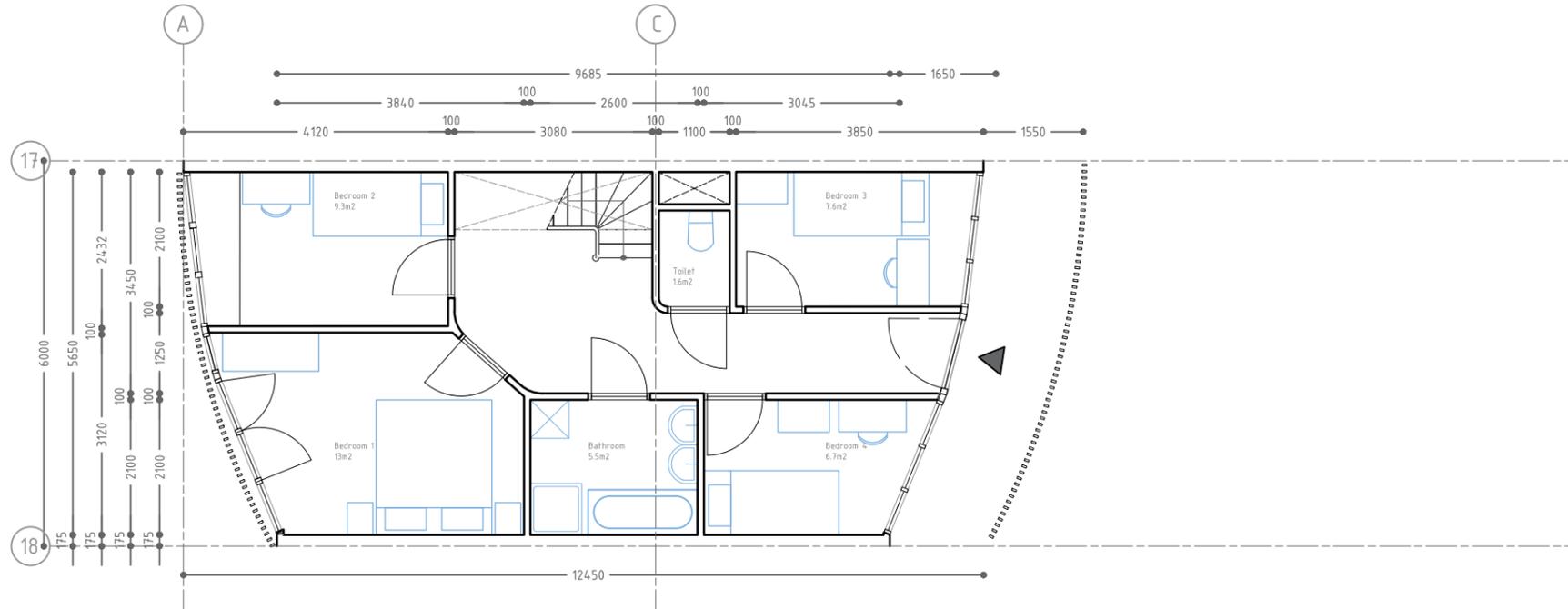
1:50

Dwelling Type XI

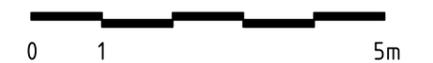
Seventh Floor



Sixth Floor

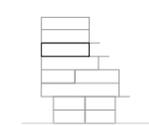
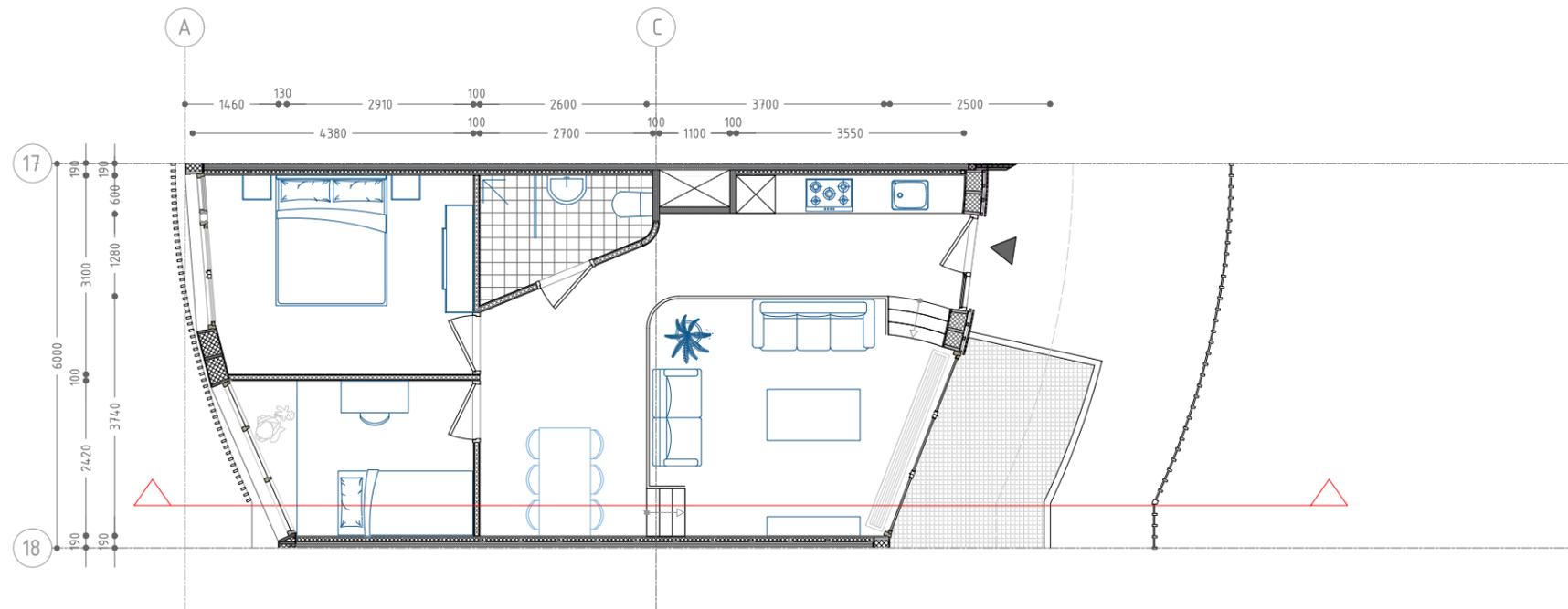
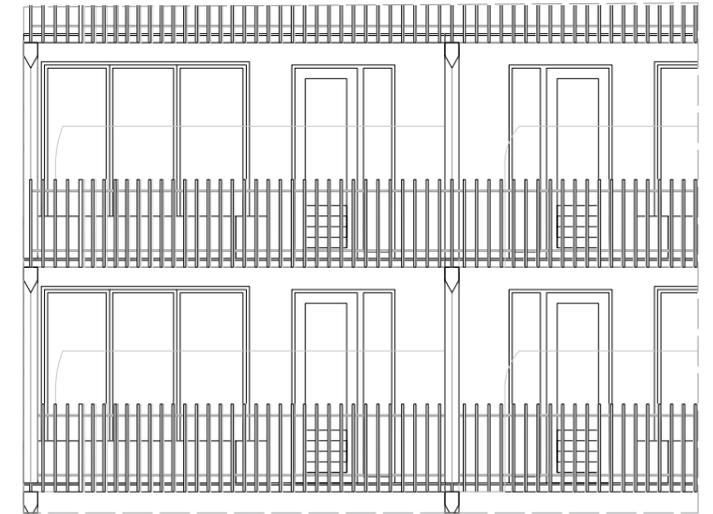
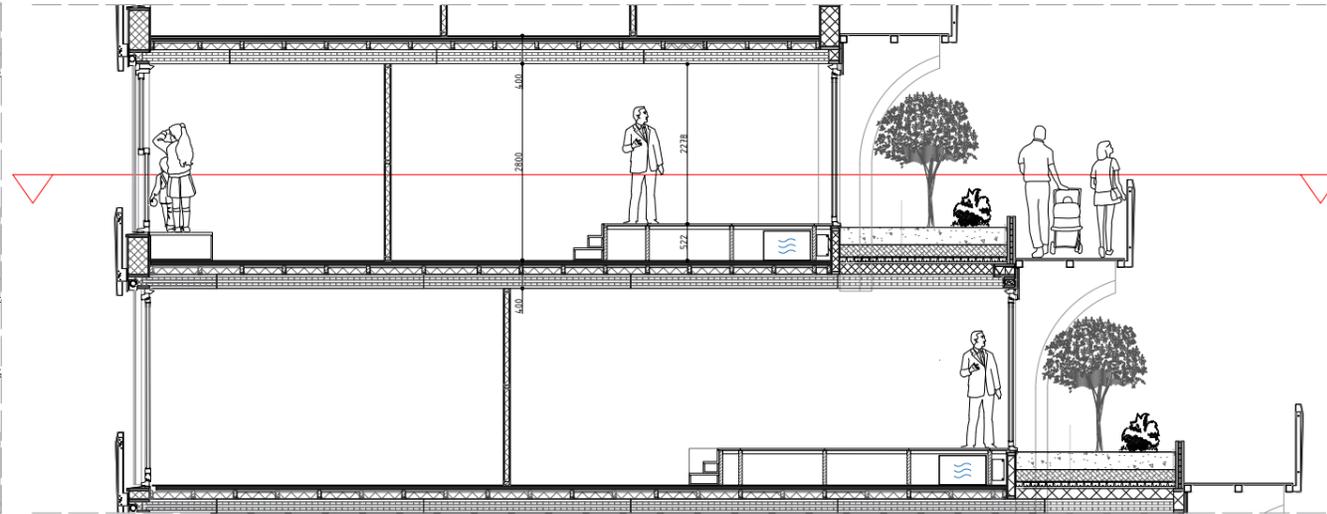
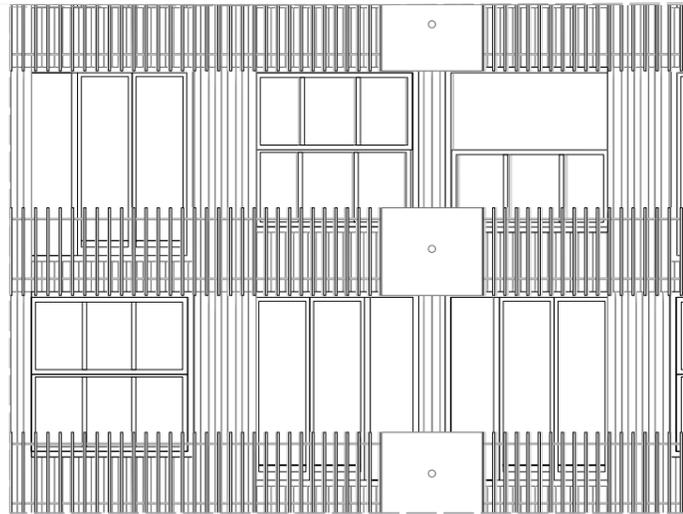


Type 11 108sqm 4 bedroom



Facade Fragment

Facade Fragment

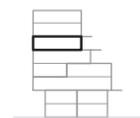
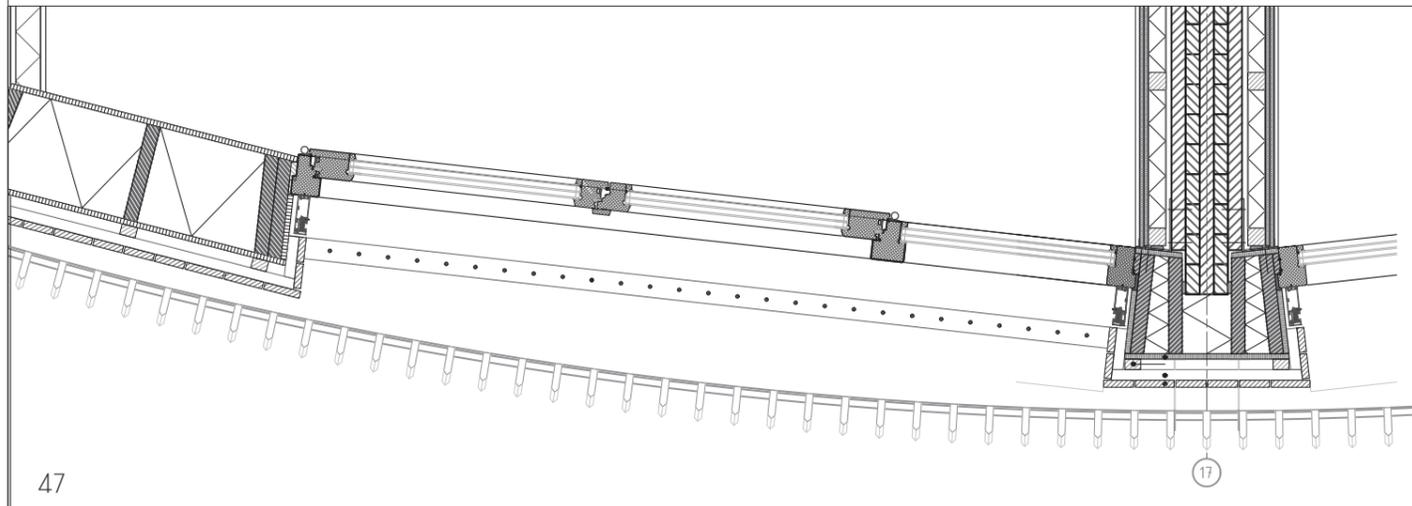
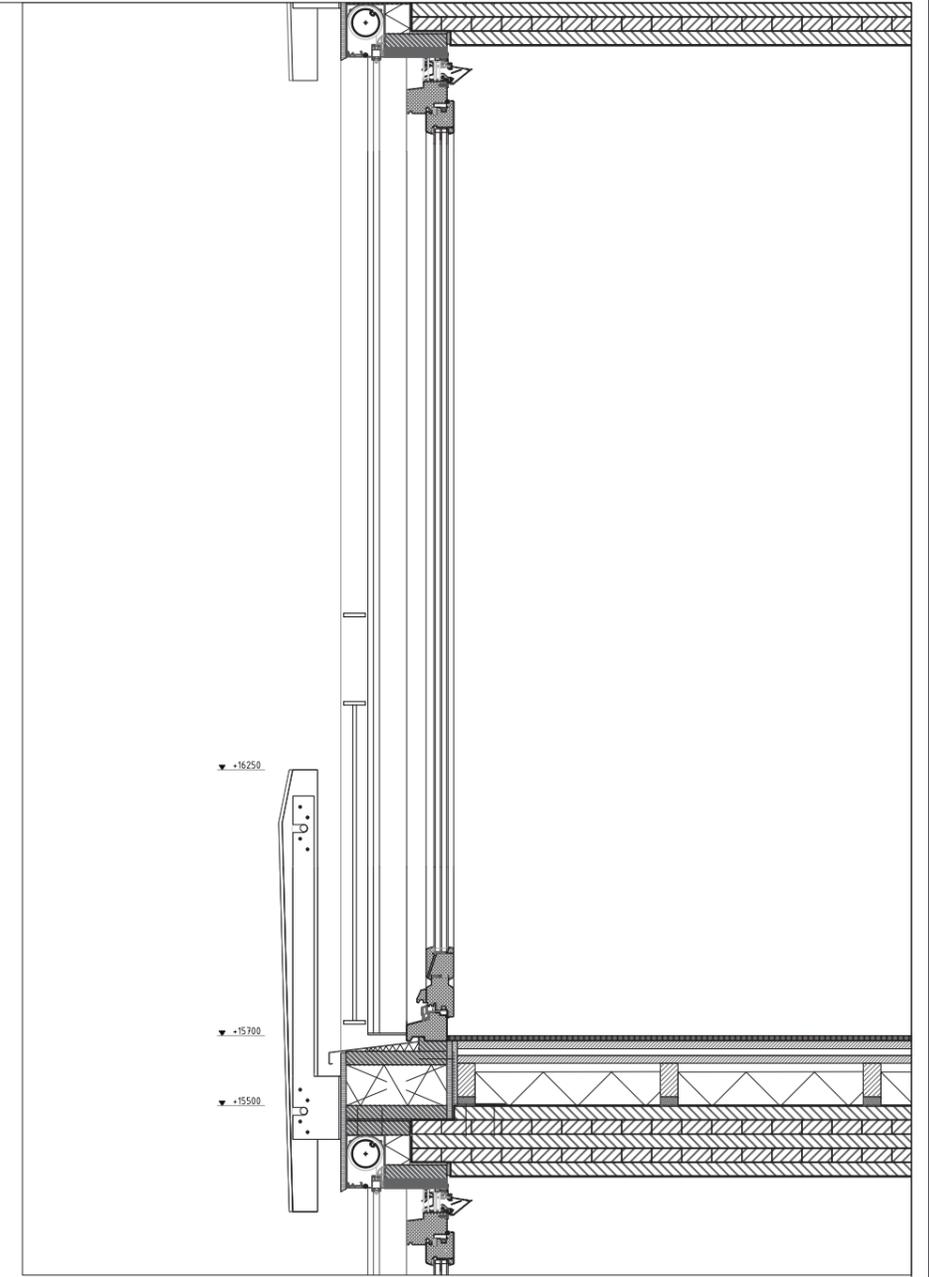
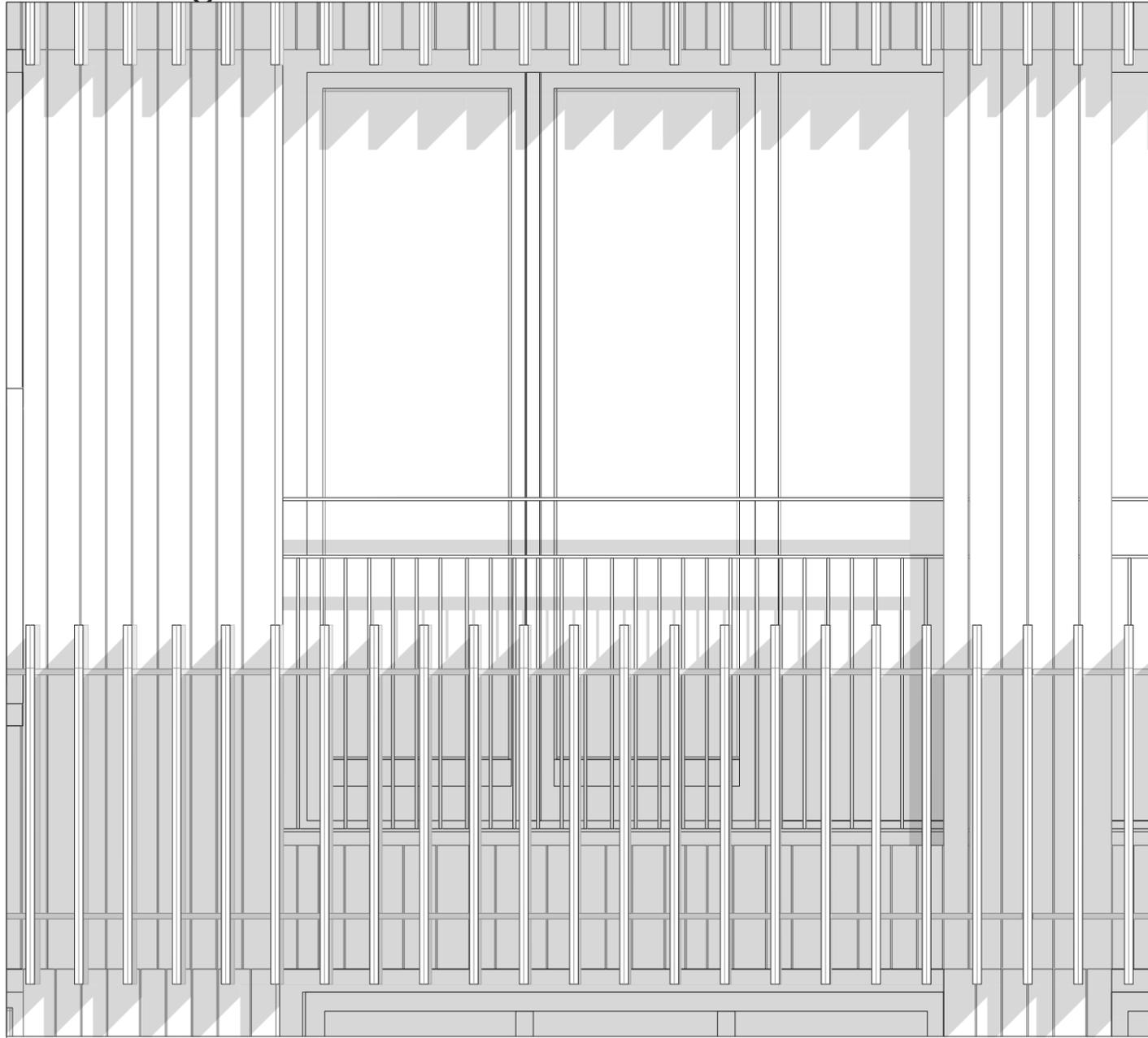


Type 6 72sqm 2 bedroom



1:100

Facade Fragment

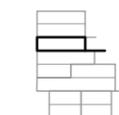
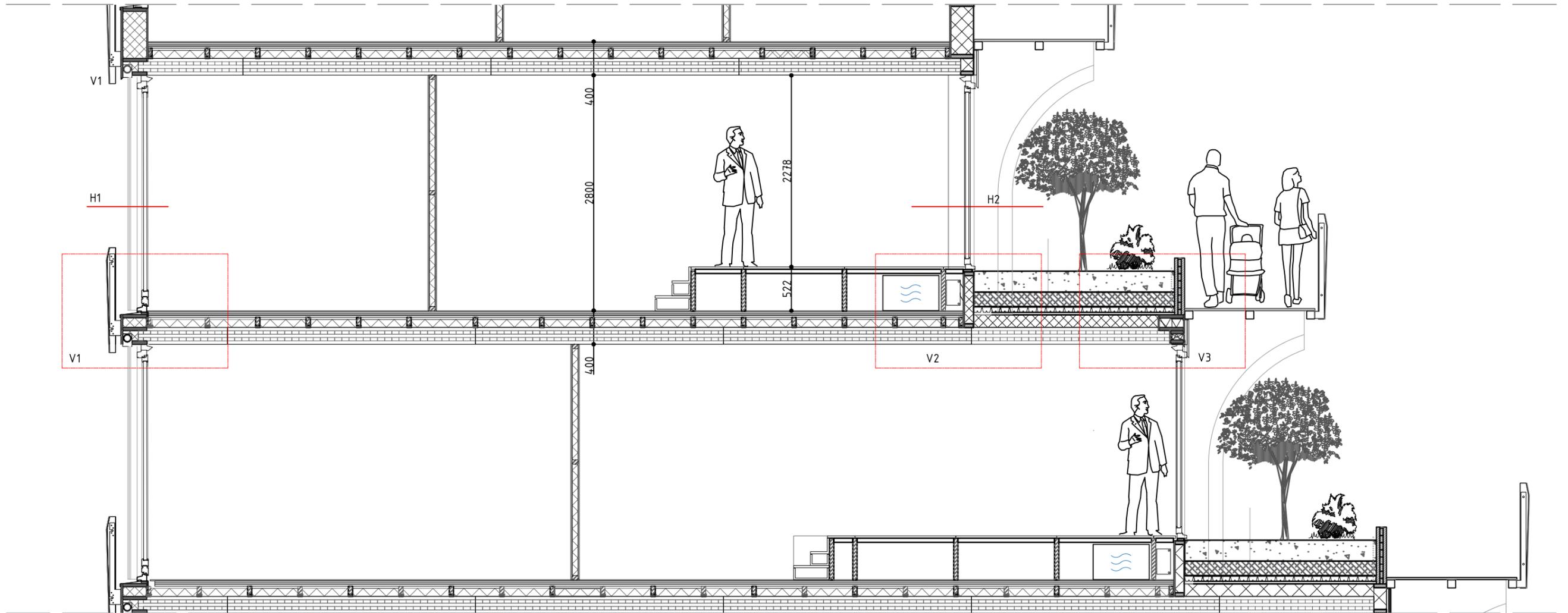


Type 6 72sqm 2 bedroom

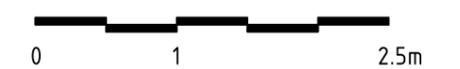


Building Details

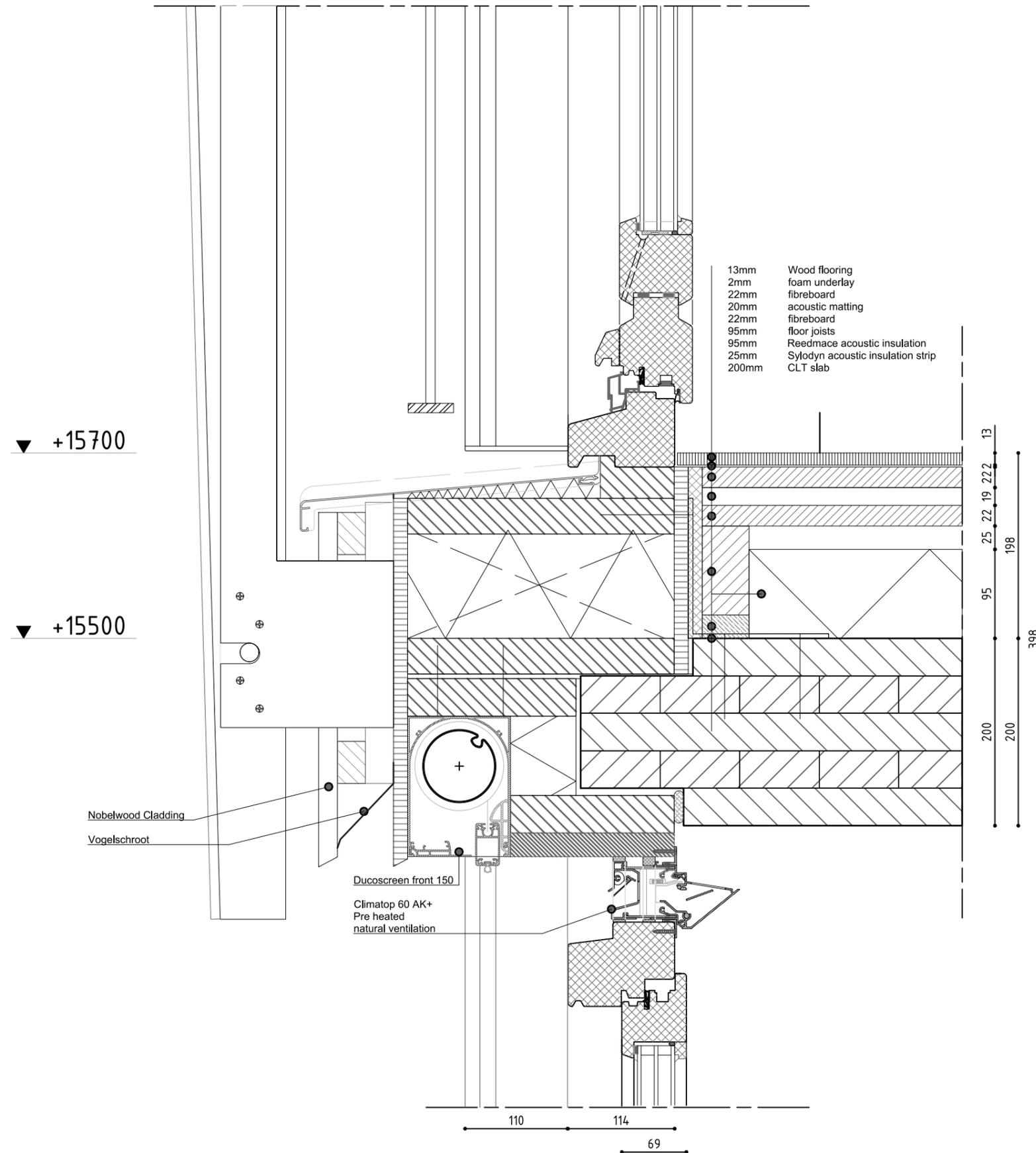
Building Details overview



Type 5 62sqm 2 bedroom

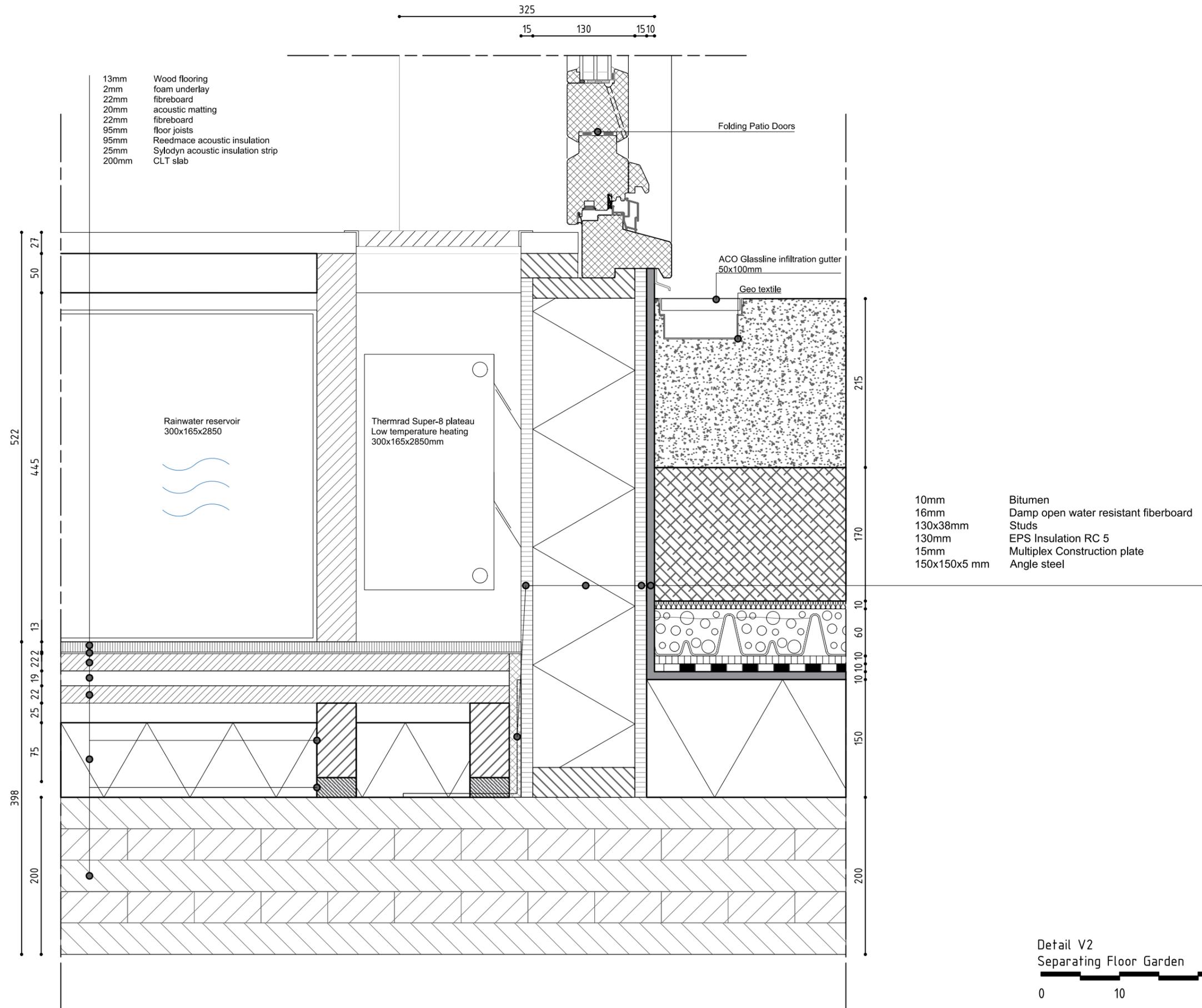


Vertical I

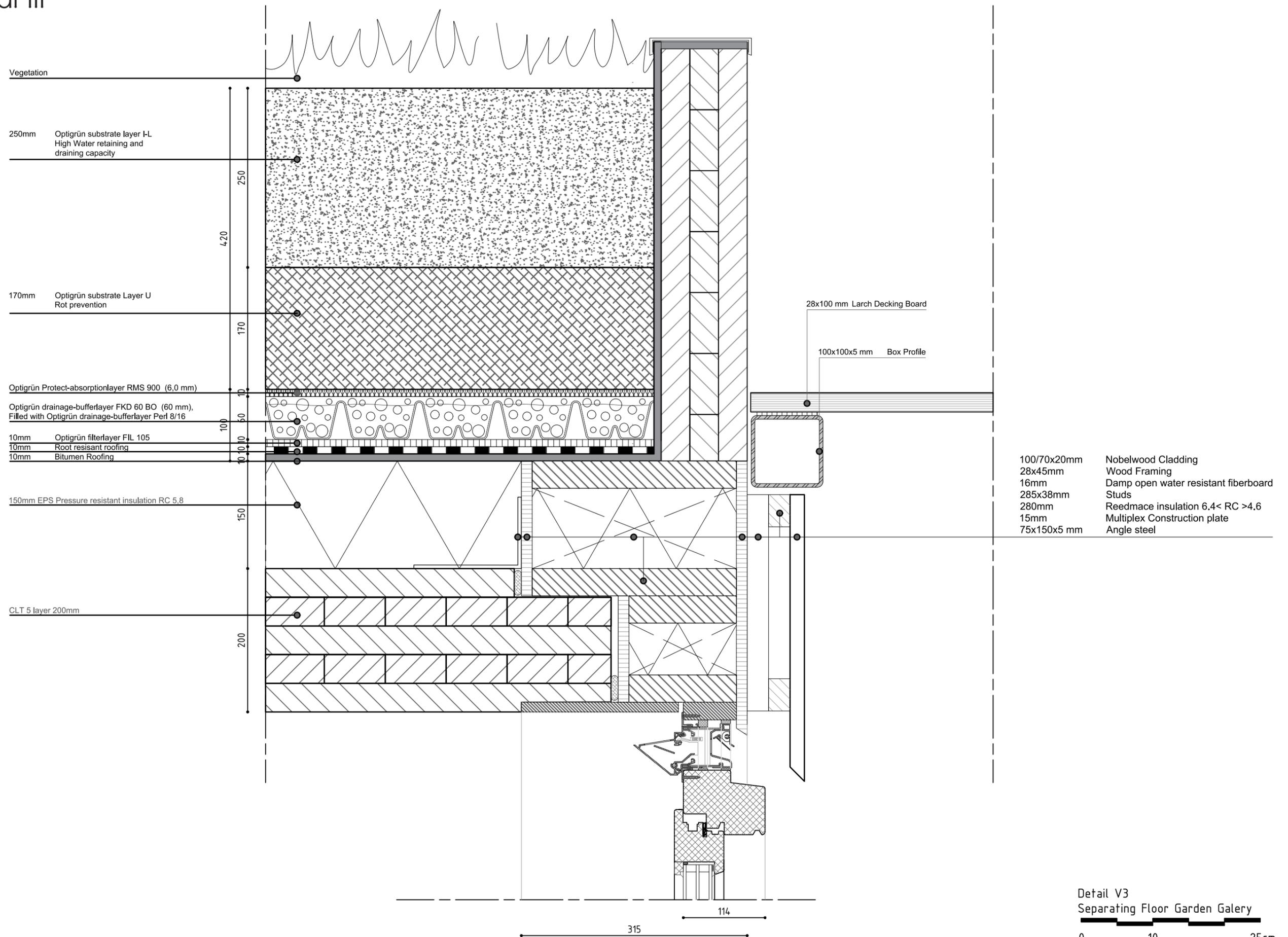


Detail V1
Separating Floor street facade
0 10 25cm 1:5

Vertical II



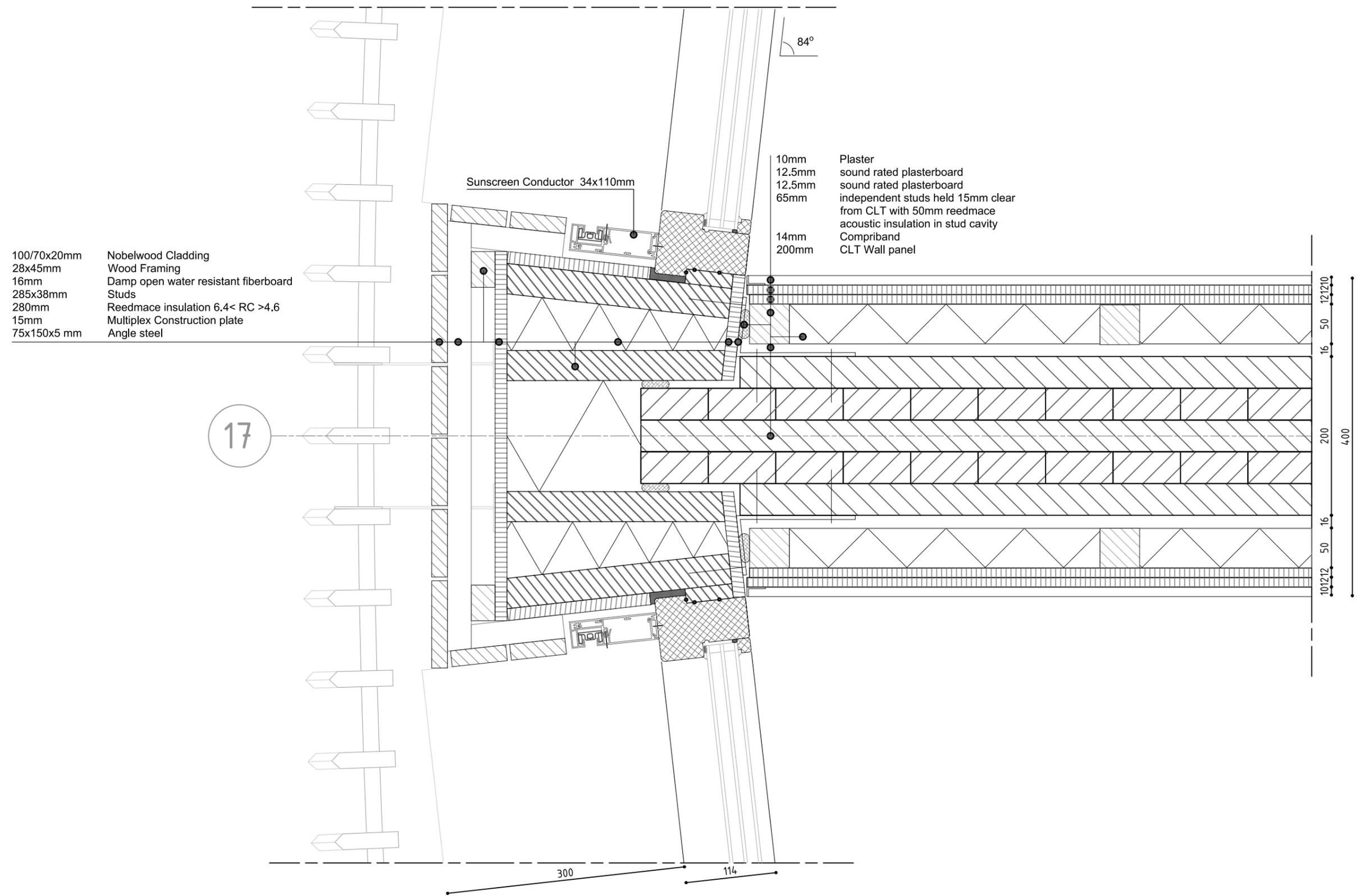
Vertical III



Detail V3
Separating Floor Garden Gallery

0 10 25cm 1:5

Horizontal I

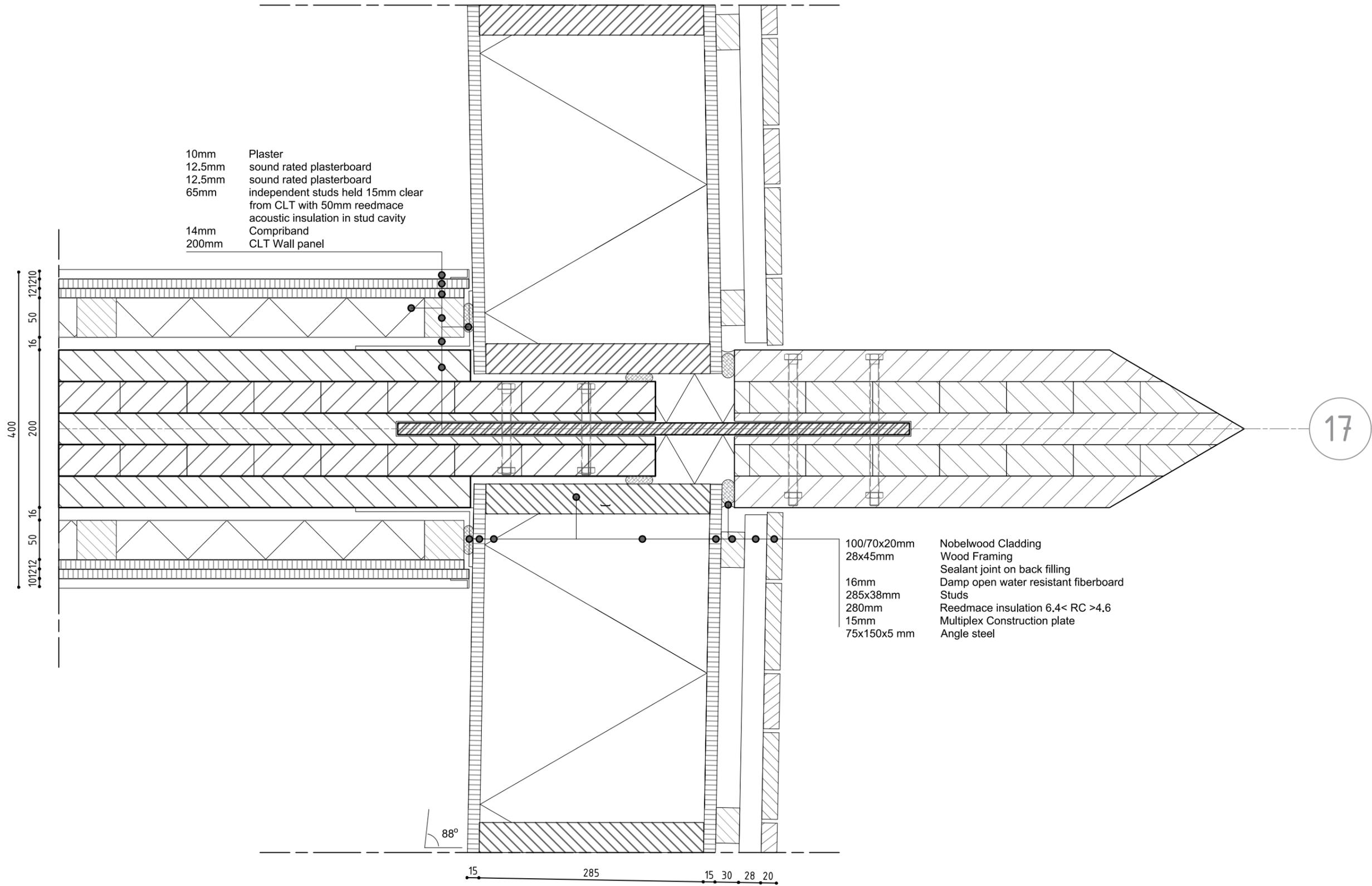


Detail H1 Separating wall

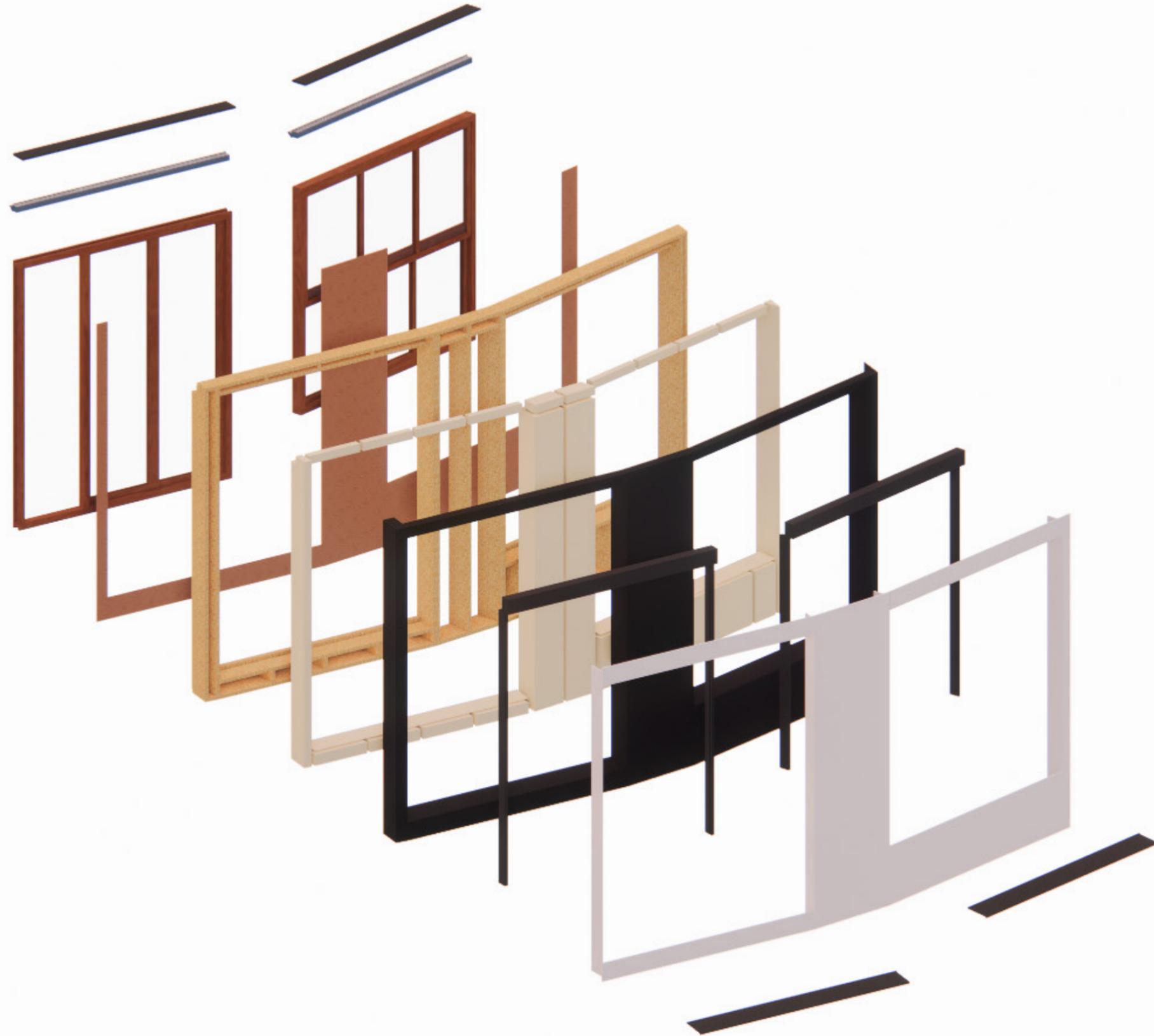


1:5

Horizontal II



Facade Exploded View



Windowframe/ventilation

Multiplex interior finish

Timber frame

Reedmace insulation

Vapor open foil

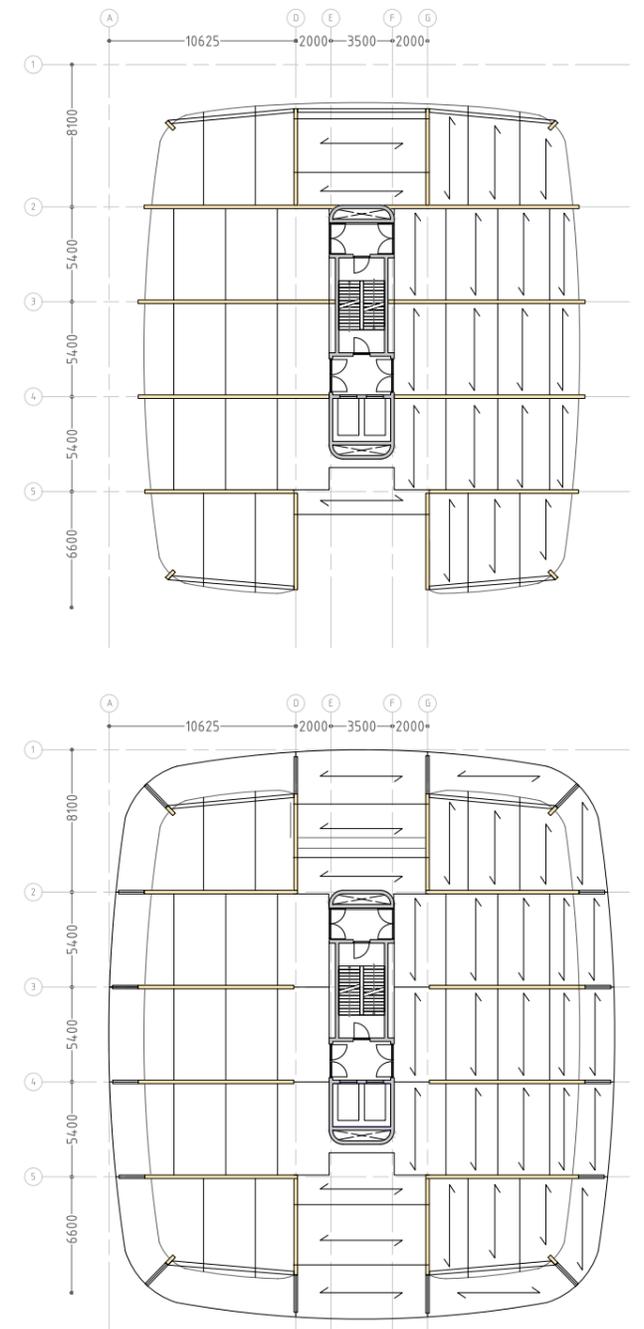
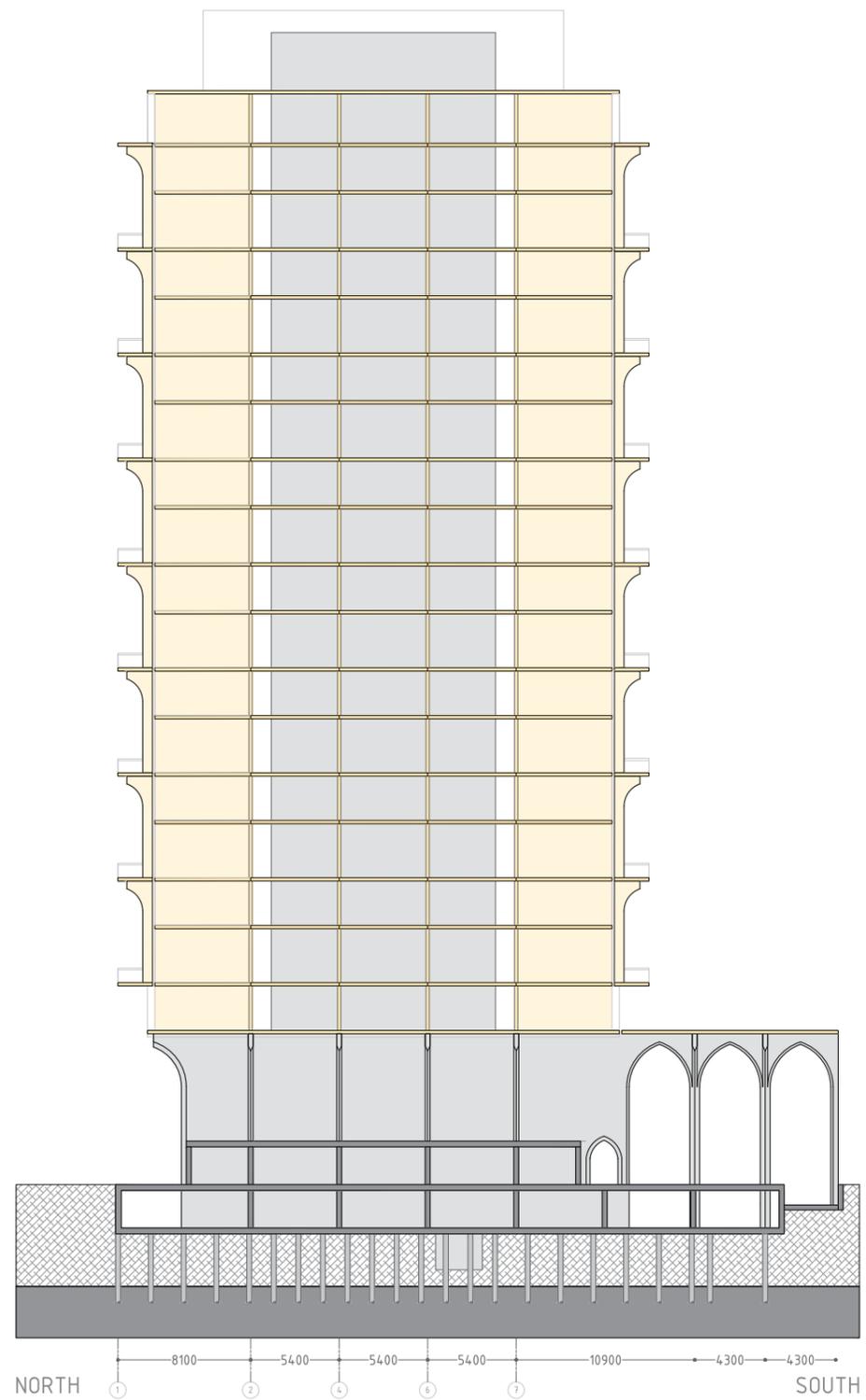
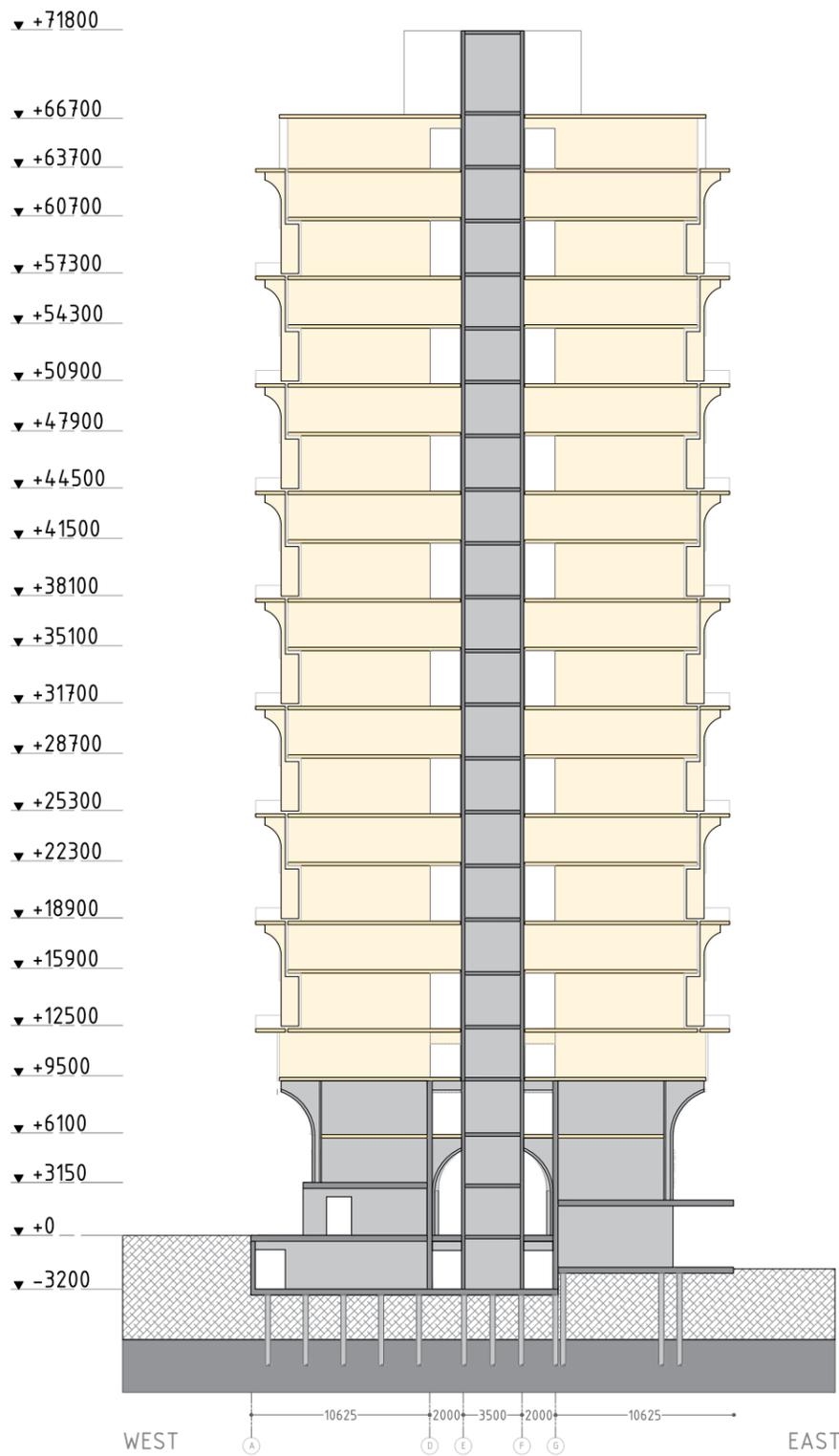
Sunscreen

Boarding

Windowsill

Construction

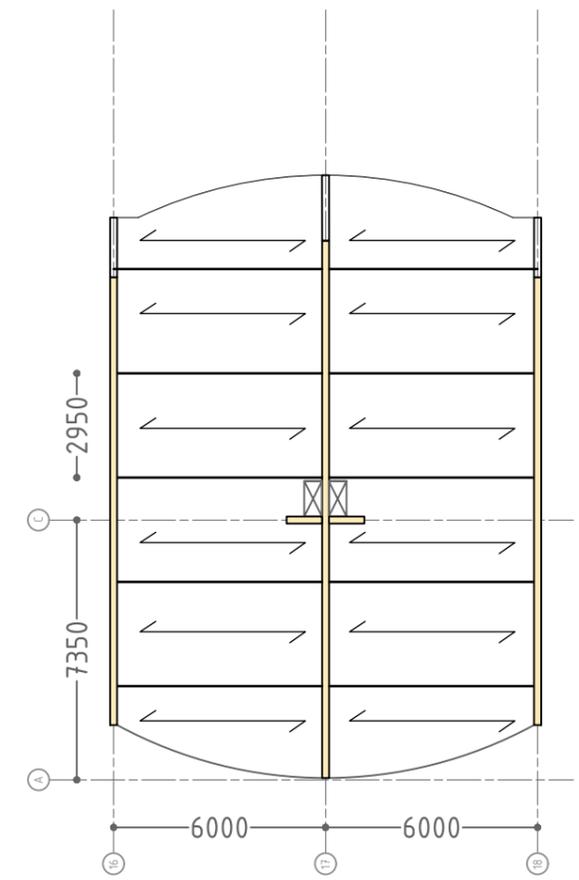
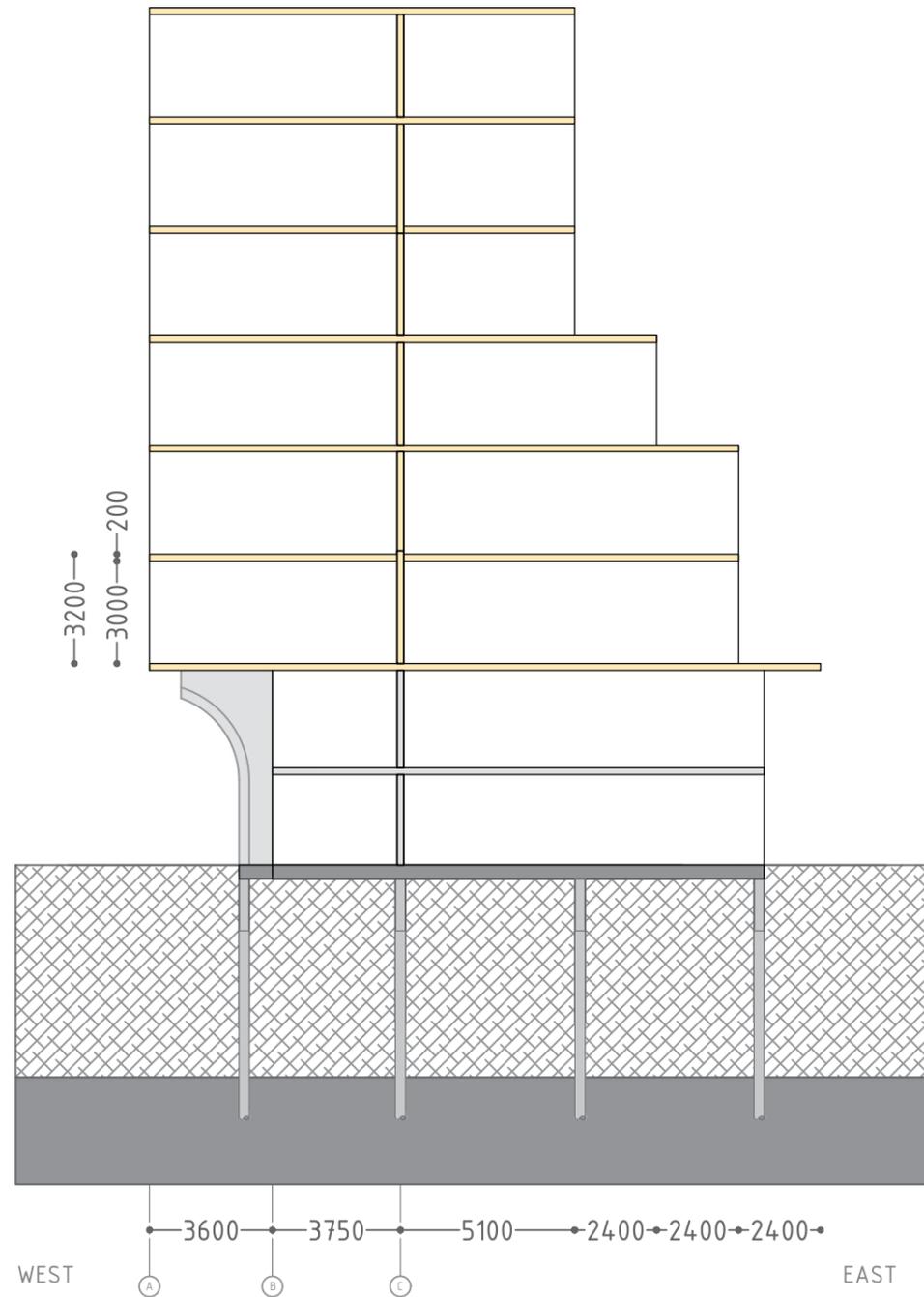
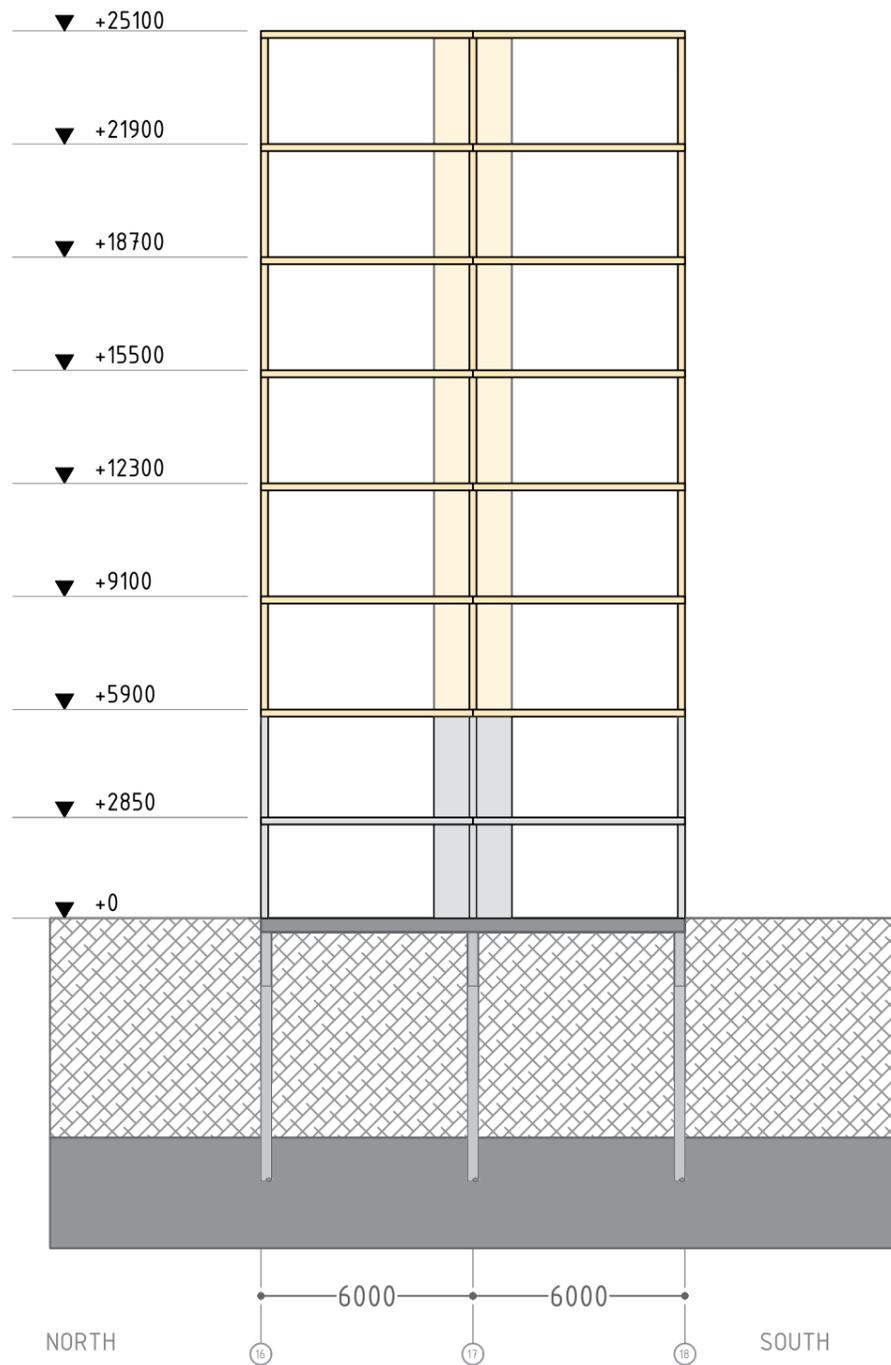
Structural principles residential tower



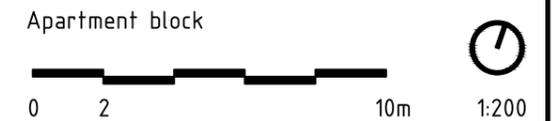
- CONSTRUCTIVE PRINCIPLES RESIDENTIAL TOWER**
- CLT WALLS AND FLOORS = 200 MM
 - SPANN = 5000 MM
 - FLOOR HEIGHT = 3200 MM
 - CONCRETE CORE = 200 MM
 - MEASUREMENTS 3700X14450 MM
 - CONCRETE POLE FOUNDATION



Structural principles apartment block

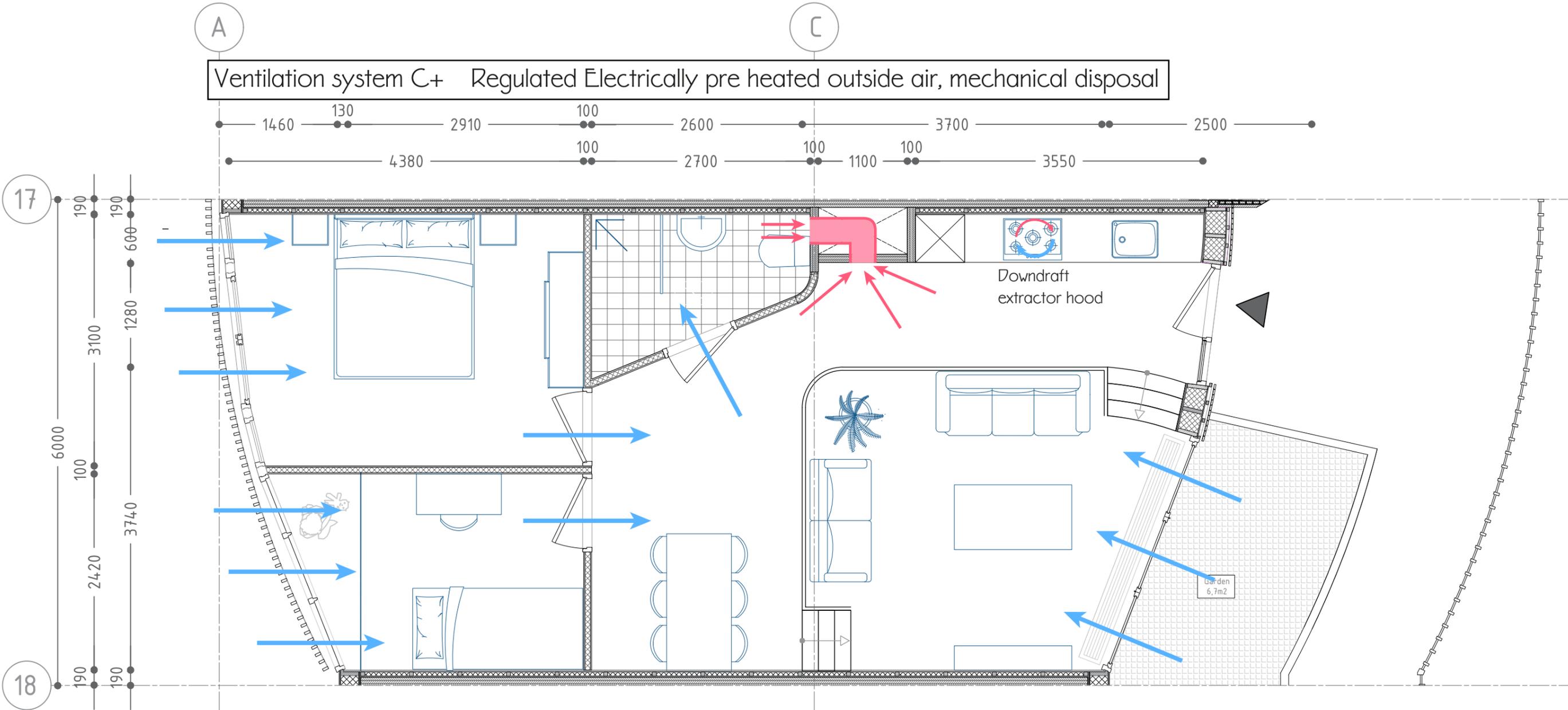


- CONSTRUCTIVE PRINCIPLES APARTMENT BLOCK
- CLT WALLS AND FLOORS = 200 MM
- SPANN = 5800 MM
- FLOOR HEIGHT = 3200 MM
- CLT STABILITY SLAB 200X1000 MM
- CONCRETE POLE FOUNDATION

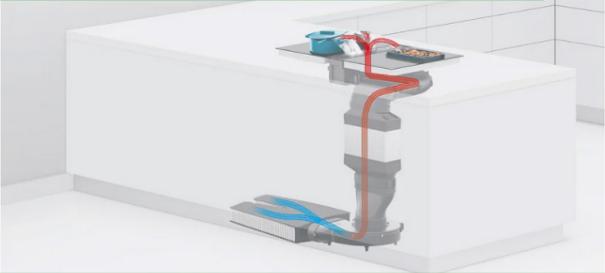


Climate Design

Ventilation scheme apartment block



BORA Recirculationsystem

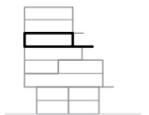


https://www.bora.com/fileadmin/_processed_/6/0/csm_2021_BORA_Grafiken_Classic_Umluft_Homepage_736bbec28e.jpg.webp

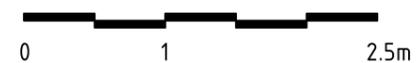
Duco Climatop 60 AK+



www.duco.eu



Type 5 62sqm 2 bedroom



1:50

Dwelling Type III Residential Tower - Ventilation

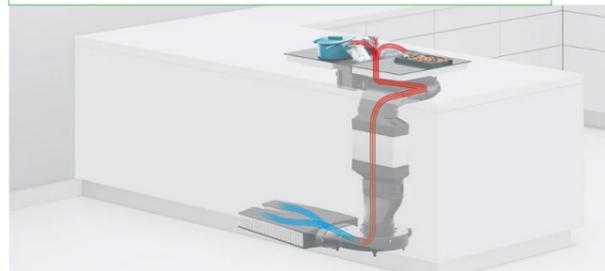
Ventilation system C+ Regulated Electrically pre heated outside air, mechanical disposal

Duco Climatop 60 AK+

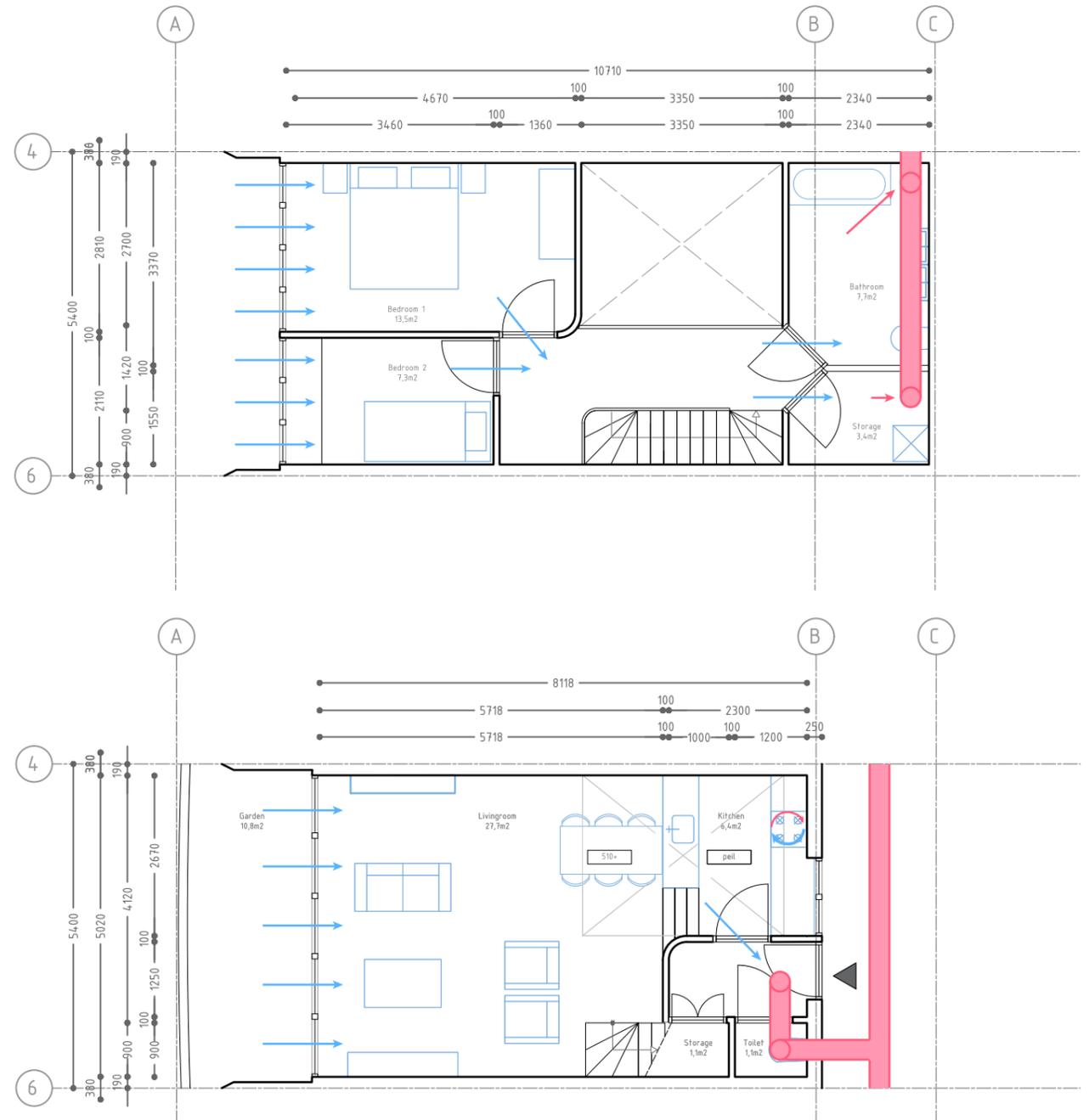


www.duco.eu

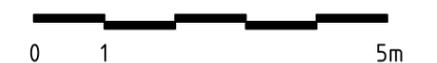
BORA Recirculationsystem



https://www.bora.com/fileadmin/_processed_/6/0/csm_2021_bORA_Grafiken_Classic_Umluft_Homepage_736bbec28e.jpg.webp



Type 3 86 sqm 2 bedroom

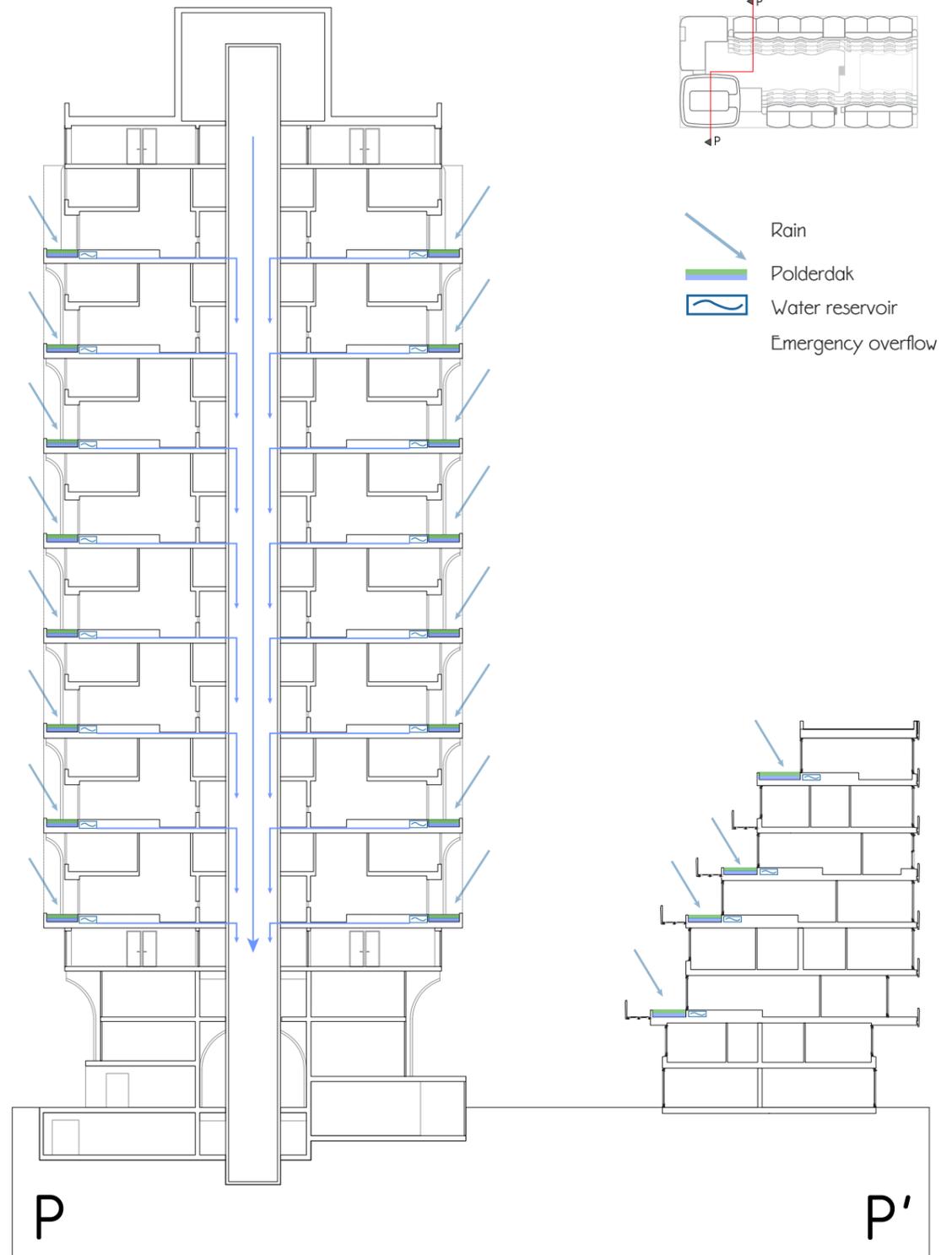


1:100

Water retention system

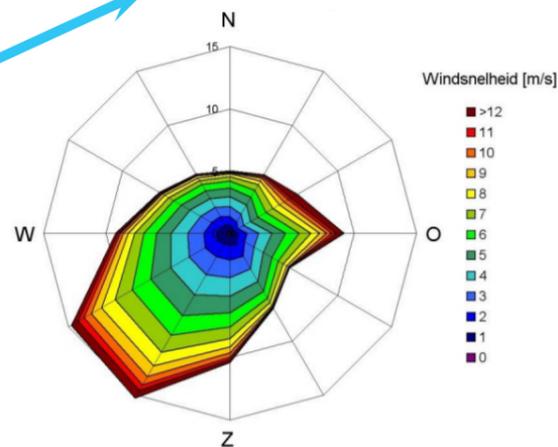
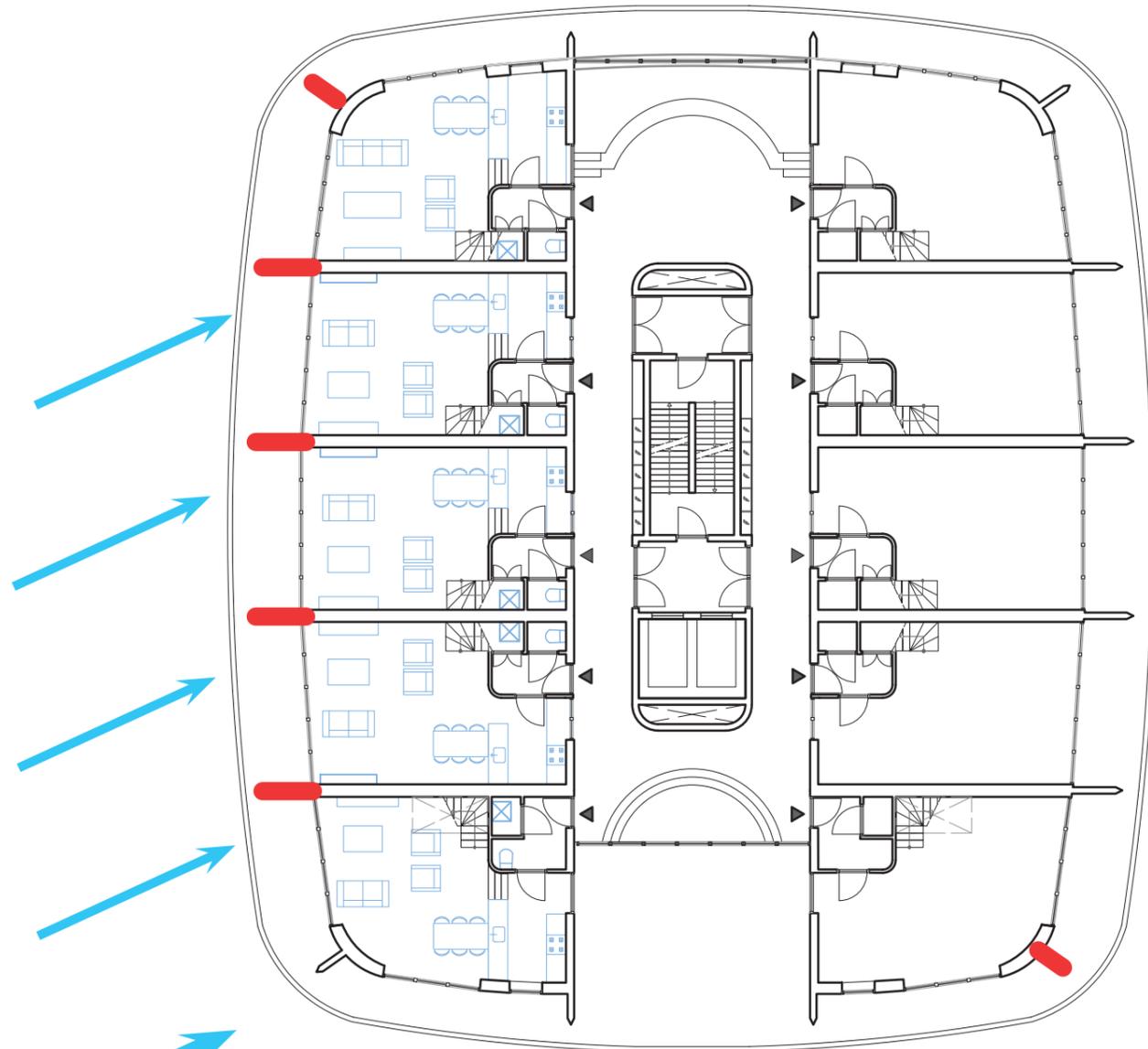
Emergency Overflow

“Polderdak” Water retention system



Air

Wind study residential tower



https://www.planviewer.nl/imro/files/AL.IMRO.0363.M1401B-PG/T-VG01/b_AL.IMRO.0363.M1401BPG/T-VG01_tb3.pdf

Earth

Geothermal Energy

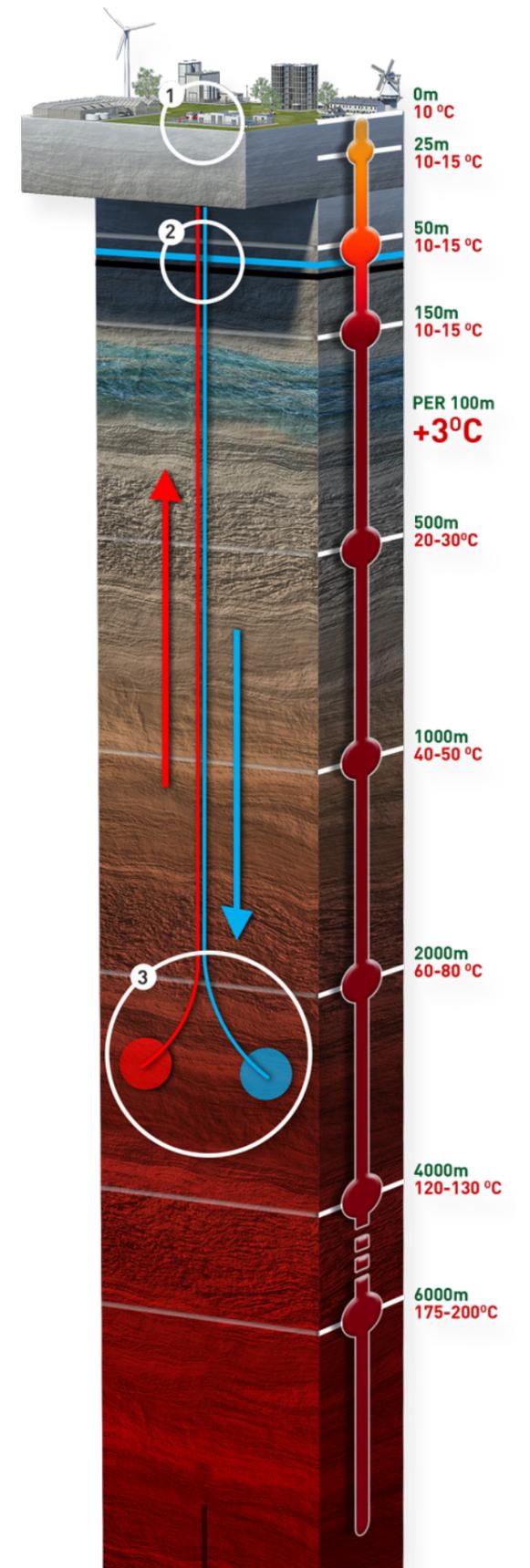
Energy for 4.000 to 10.000 homes

Low temperature heating

Amsterdam gaat stadsbreed boren naar een alternatief voor aardgas

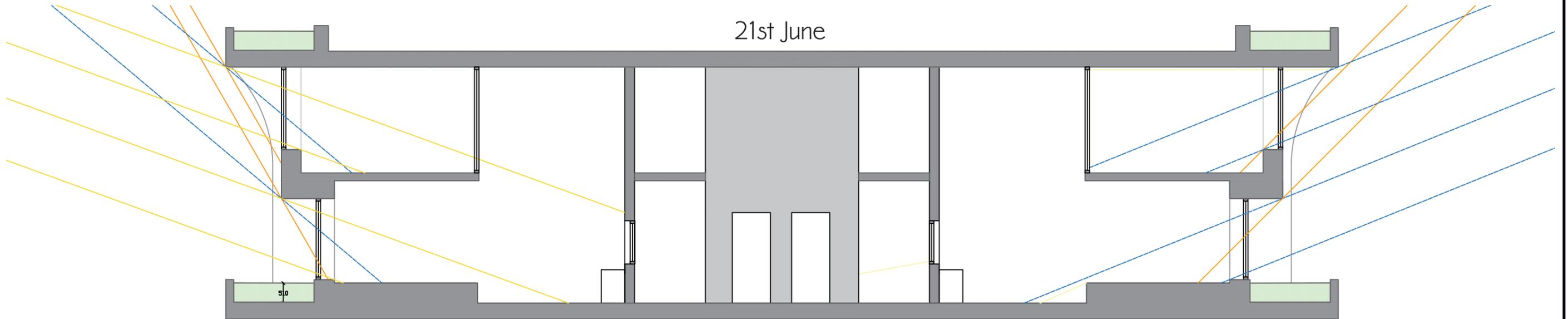
Parool 10-06-2021

<https://www.parool.nl/amsterdam/amsterdam-gaat-stadsbreed-boren-naar-een-alternatief-voor-aardgas~b1e619765/>



sun study residential tower 1:100

21st June



West facade

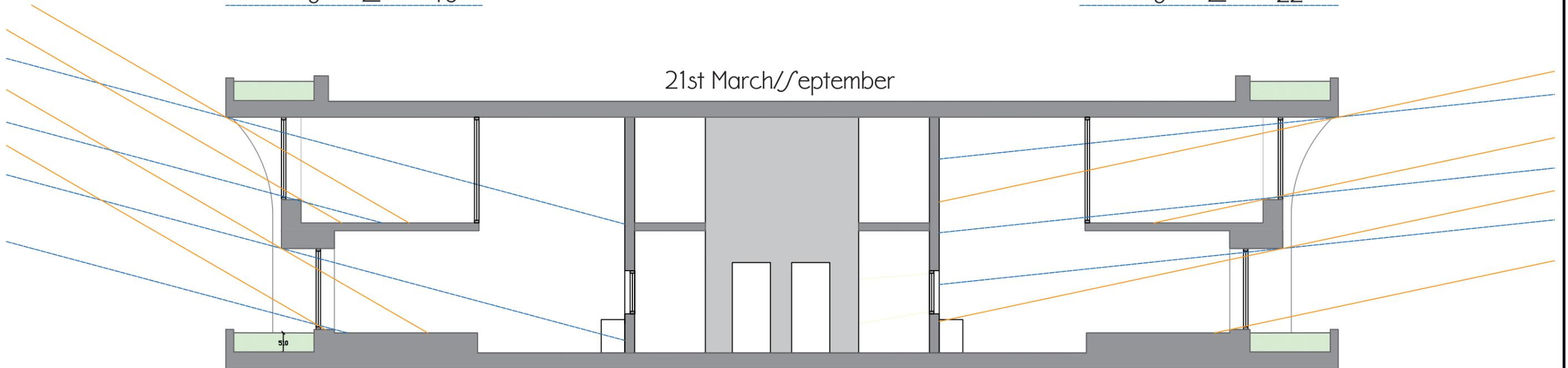
15:00u	∠	58
19:30u	∠	20
Average	∠	40

Little sun exposure
No need for blinds
Dwellings stay cool

East facade

5:00u	∠	0
10:00u	∠	45
Average	∠	22

21st March/September



West facade

15:30u	∠	30
19:30u	∠	0
Average	∠	15

sun exposure
Natural solar heating

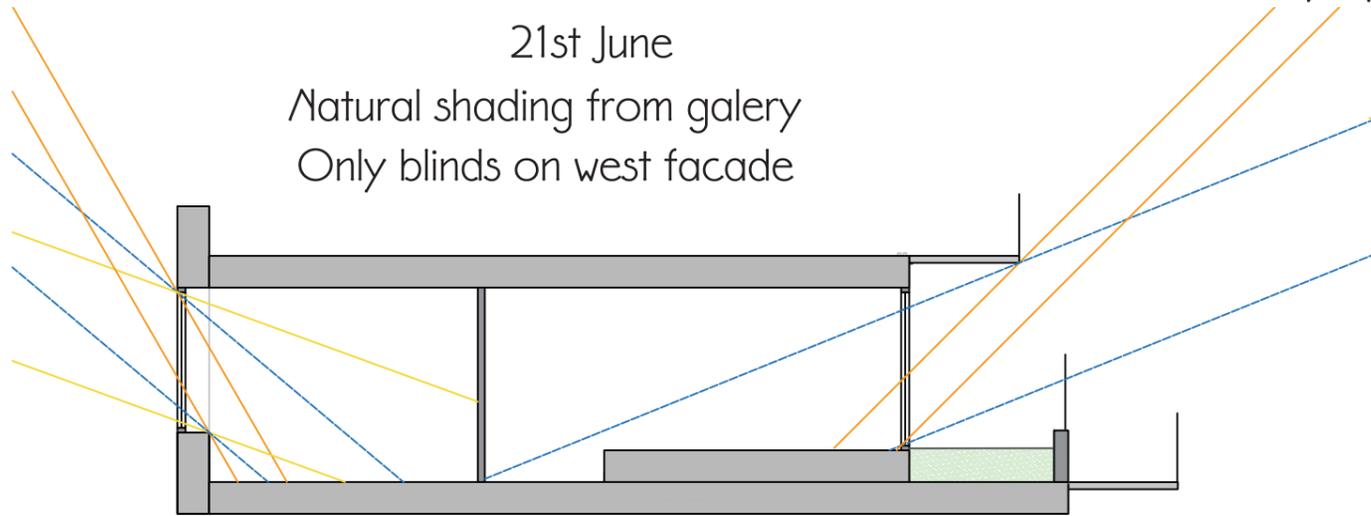
East facade

6:30u	∠	0
8:40u	∠	12
Average	∠	6

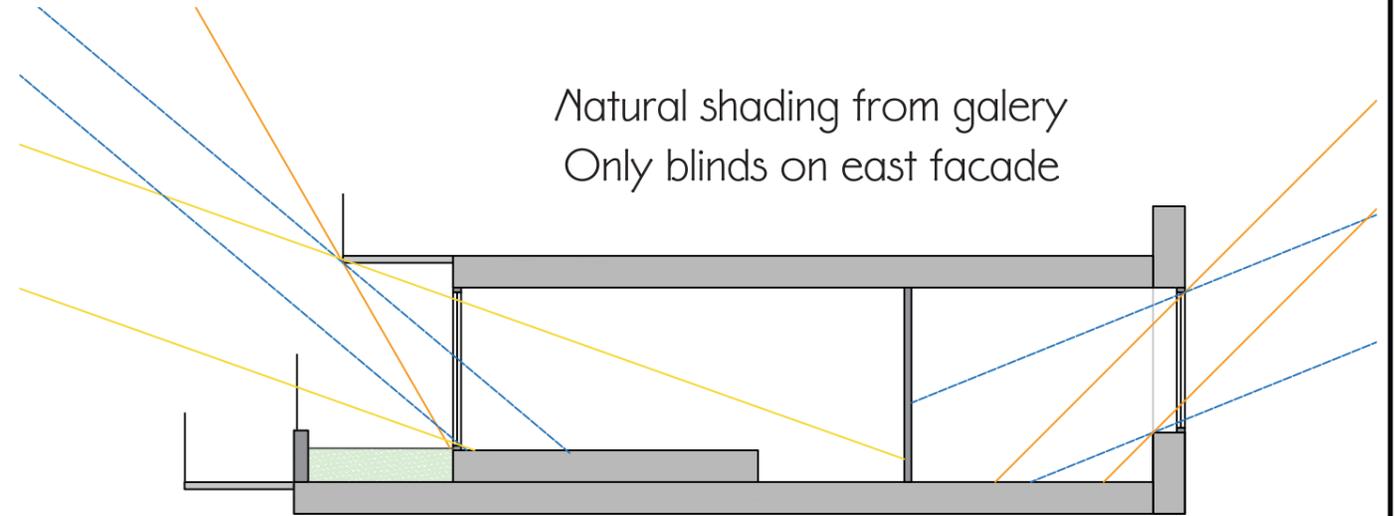
sun study apartments 1:100

21st June

Natural shading from gallery
Only blinds on west facade



Natural shading from gallery
Only blinds on east facade



West facade

East facade

15:00u	∠	58
19:30u	∠	20
Average	∠	40

5:00u	∠	0
10:00u	∠	45
Average	∠	22

West facade

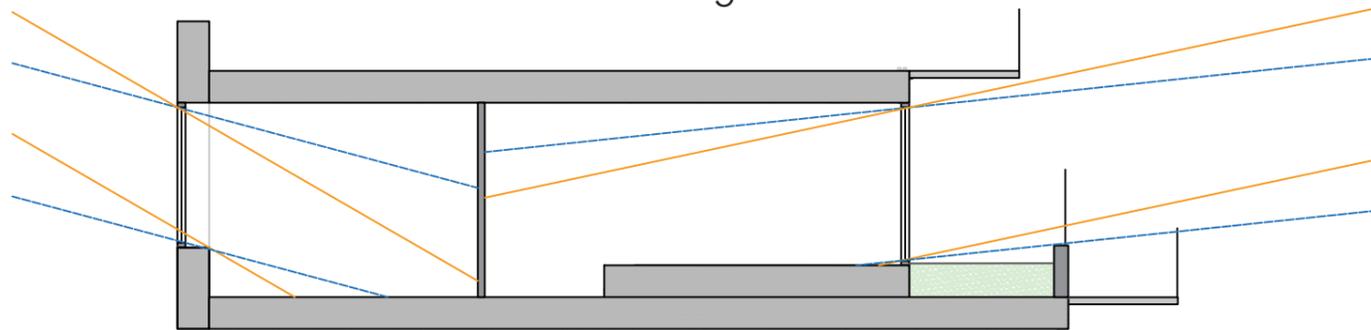
East facade

15:00u	∠	58
19:30u	∠	20
Average	∠	40

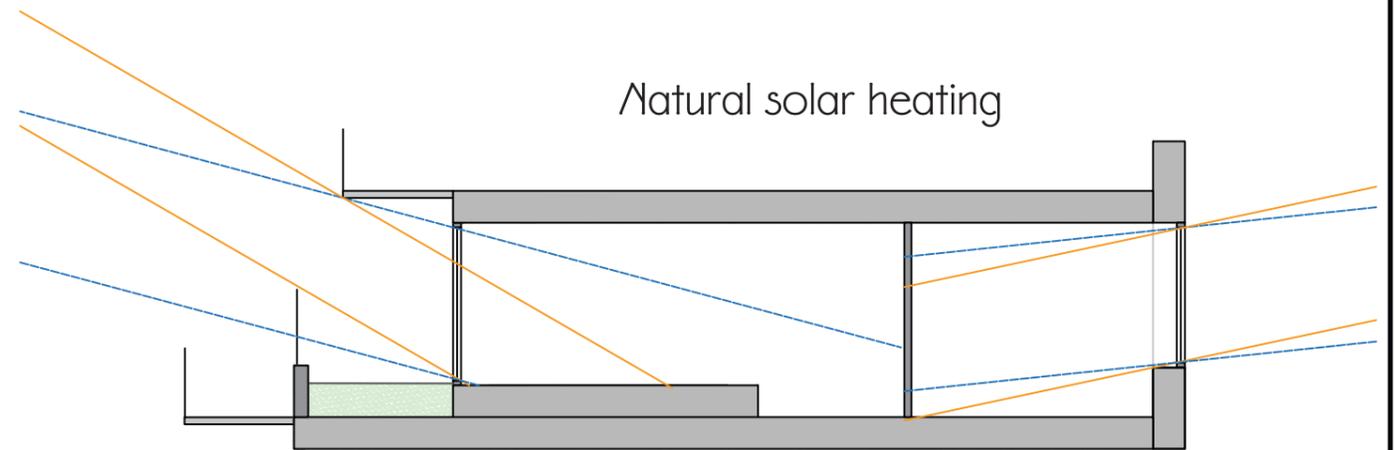
5:00u	∠	0
10:00u	∠	45
Average	∠	22

21st March/September

Natural solar heating



Natural solar heating



West facade

East facade

15:30u	∠	30
19:30u	∠	0
Average	∠	15

6:30u	∠	0
8:40u	∠	12
Average	∠	6

West facade

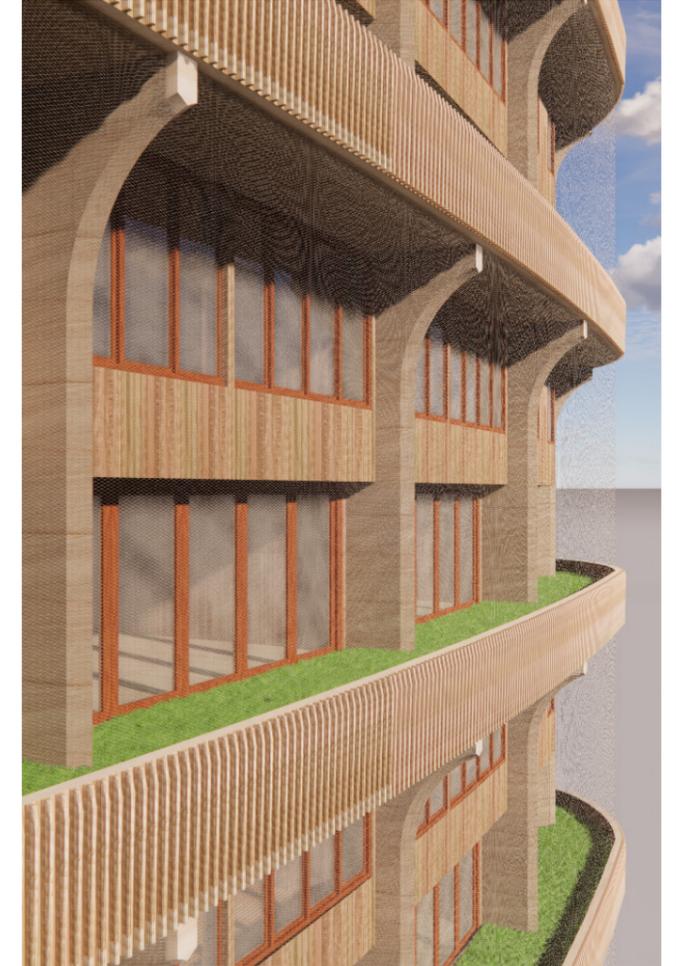
East facade

15:30u	∠	30
19:30u	∠	0
Average	∠	15

6:30u	∠	0
8:40u	∠	12
Average	∠	6

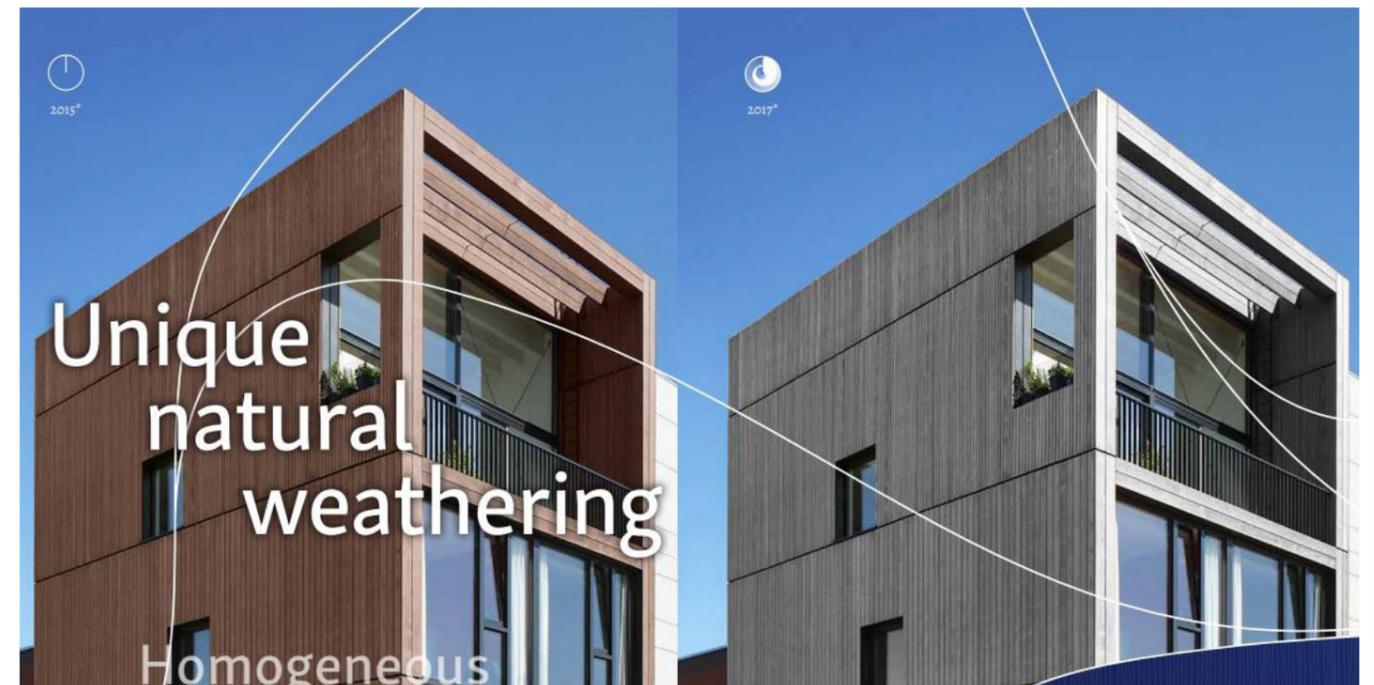
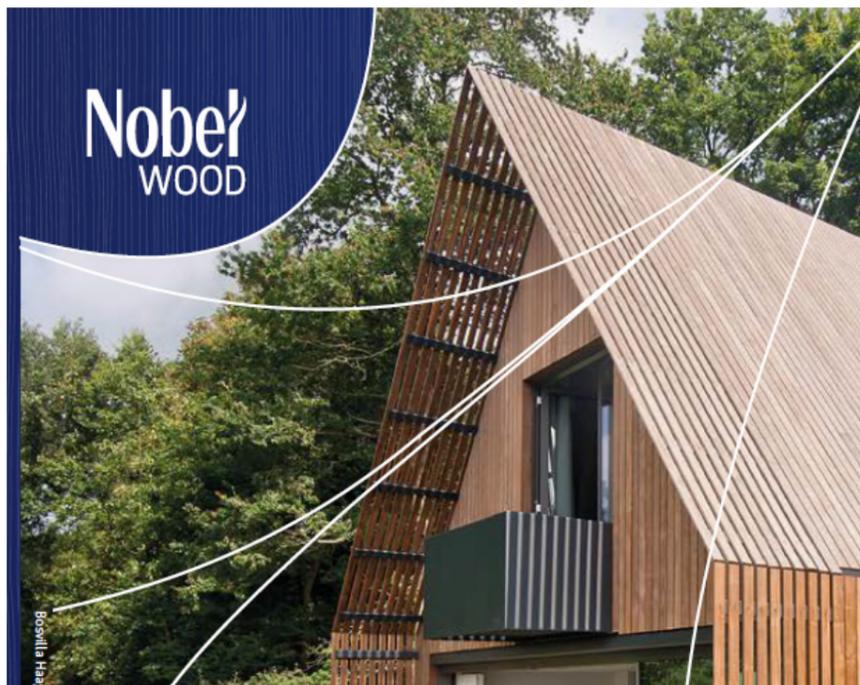
Materialisation

Materialisation residential tower

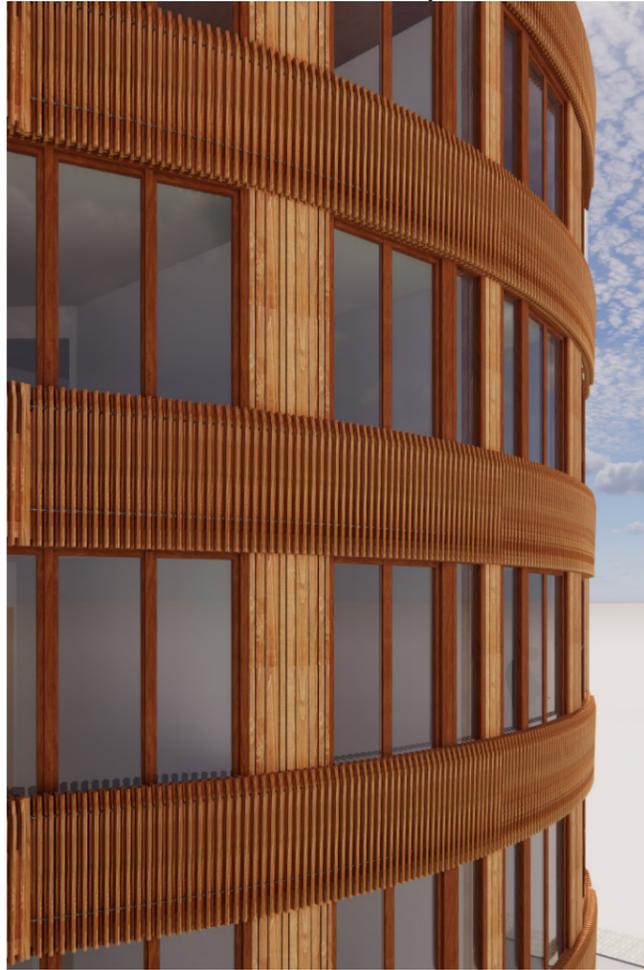


Carlstahl Xtend Colours Gold - Anti Climbing Floor to ceiling fall protection

Natural Ageing Nobelwood



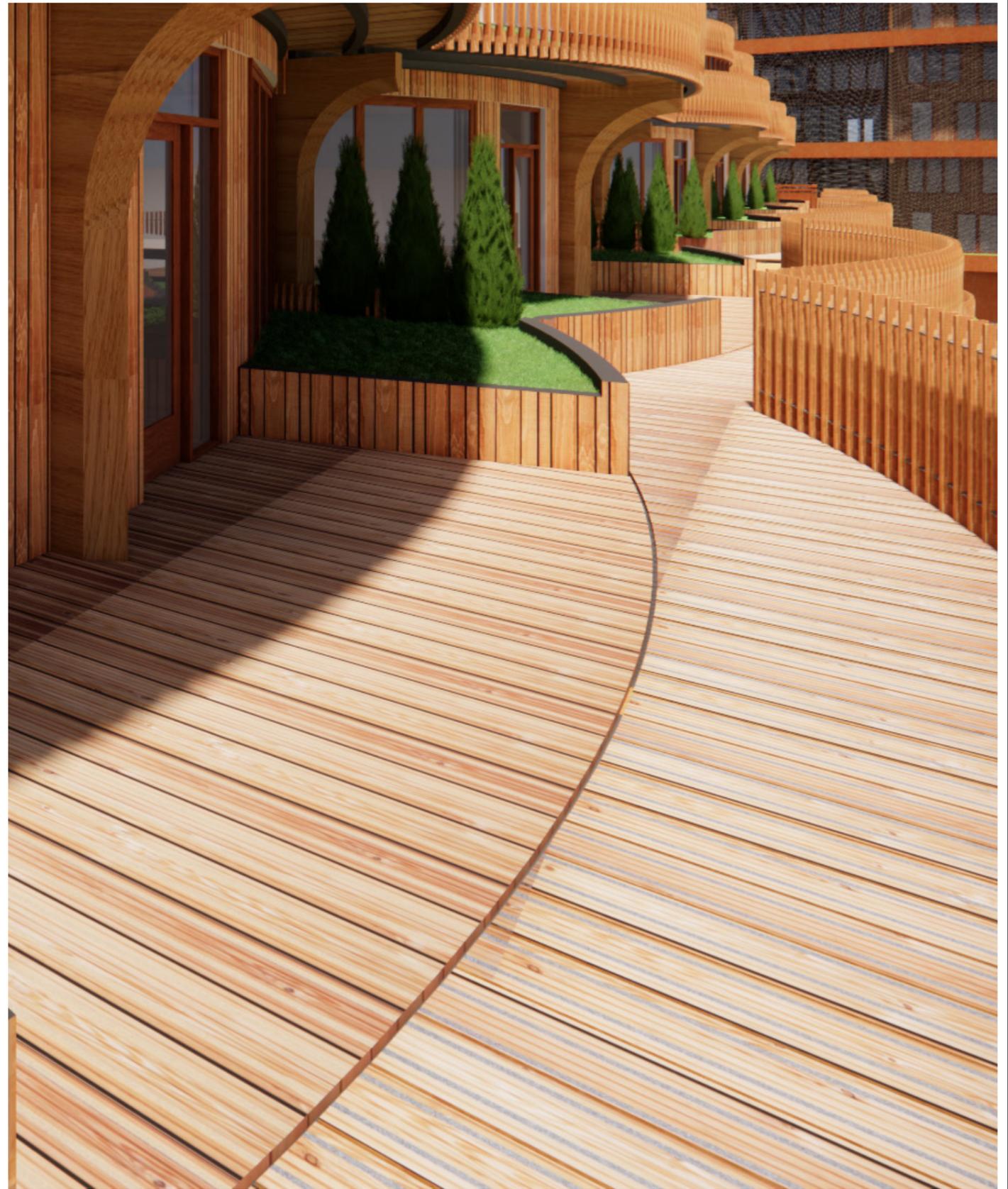
Materialisation apartment block



Natural Ageing Nobelwood



Larch Decking Antislip - Terrace



Impressions

Impressions entrances



Apartment Block West Entrance



Apartment Block East Entrance

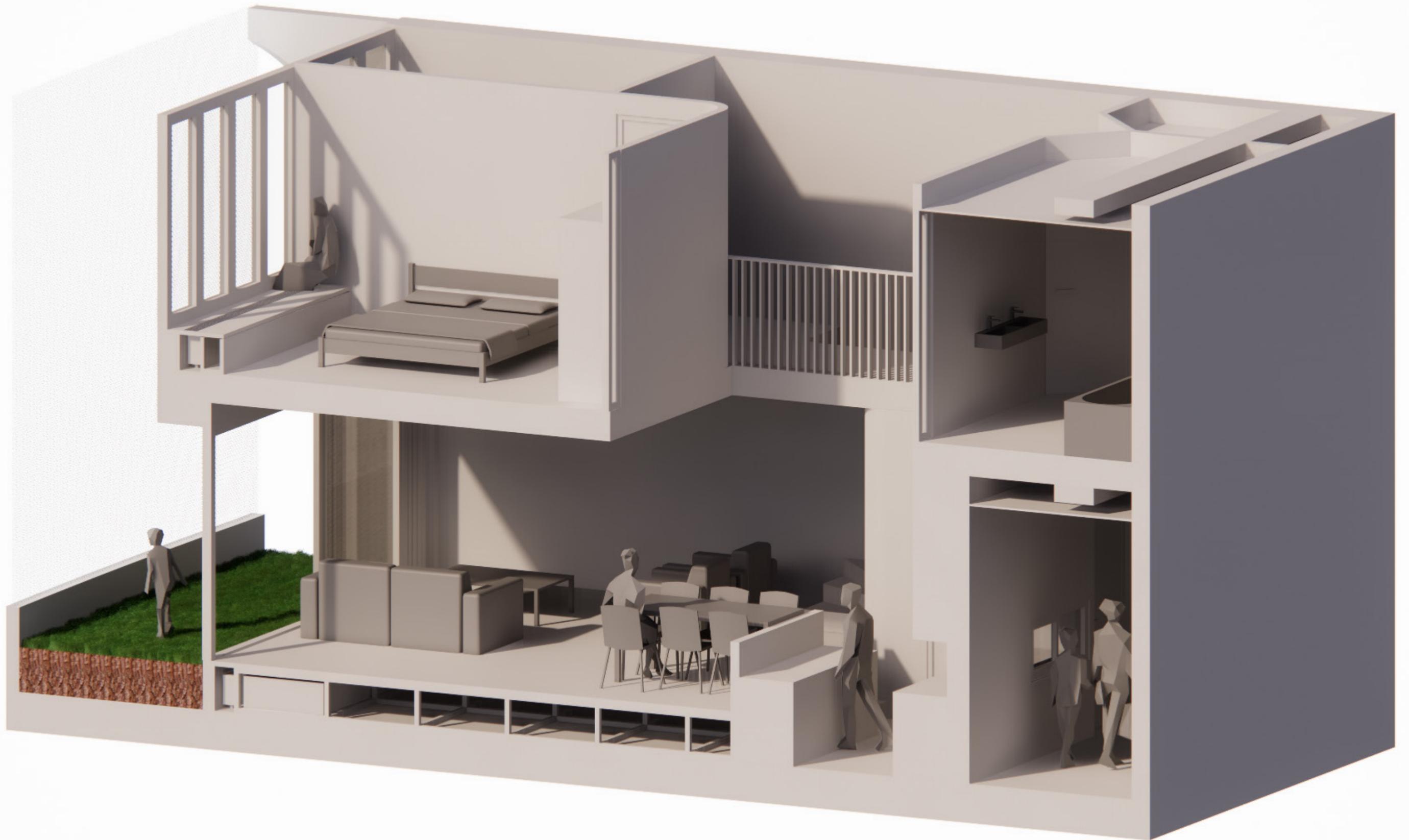


71 Residential Tower South Entrance/ Natural corridor



Residential Tower North Entrance

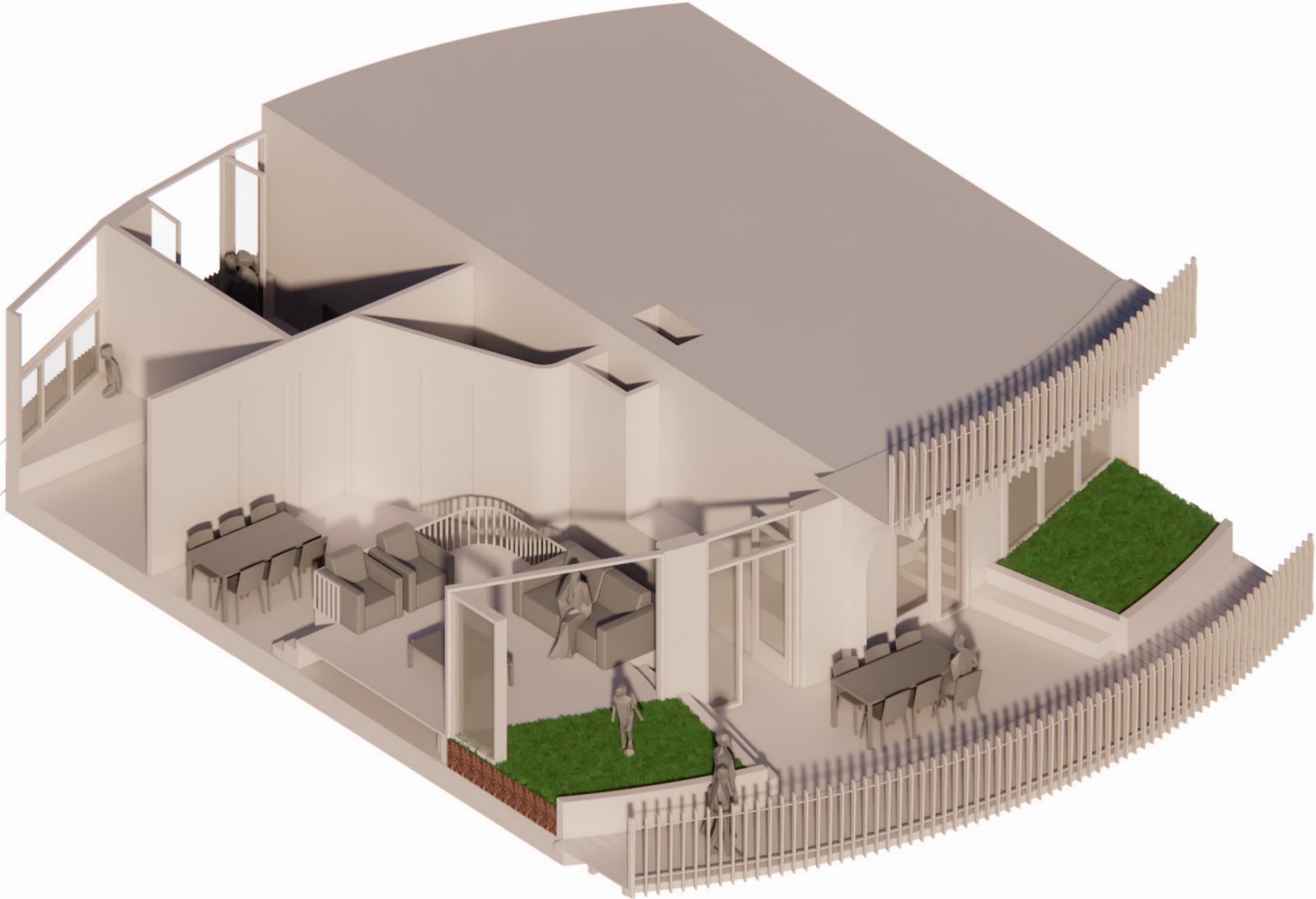
Apartment Type III



impression gardens residential tower



Impression Apartment Type X



impression garden and gallery apartment block

