

# Happily Ever After

## Mental Health Promoting Senior Living Environments

Design Factors

### Environmental Factors

- Central Location
- Physical Activity
- Views of Nature
- (Morning) Light
- Noise

Site Analysis & Conceptual Massing

### Building Factors

- Social Spaces
- Intergenerational Relationships
- Dementia Spaces
- Positive Distractions

Project Brief Formulation & Preliminary Design

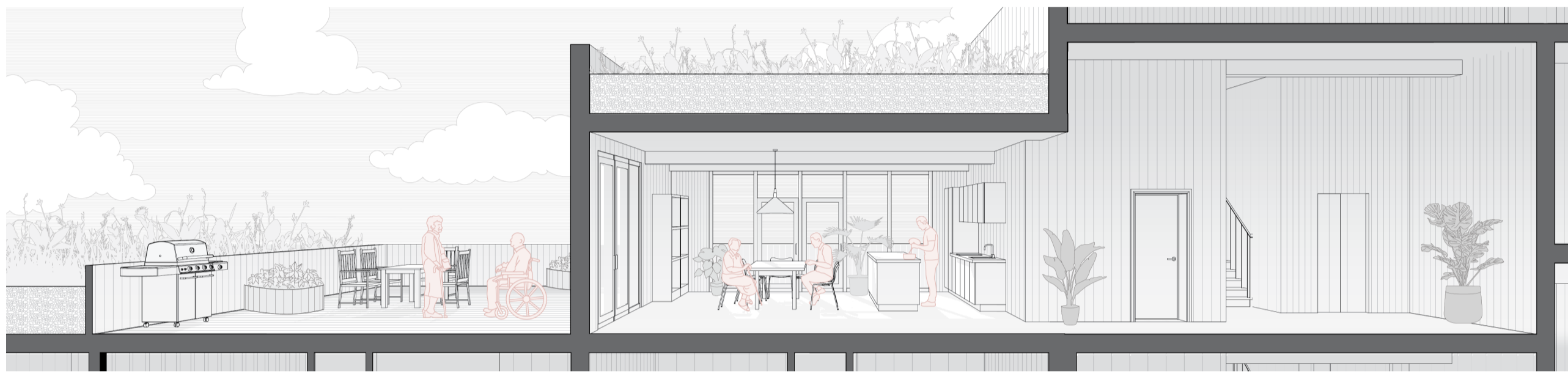
- Appropriate Size
- Outdoor Spaces
- Staff Spaces
- Home Ownership

### Finishing Factors

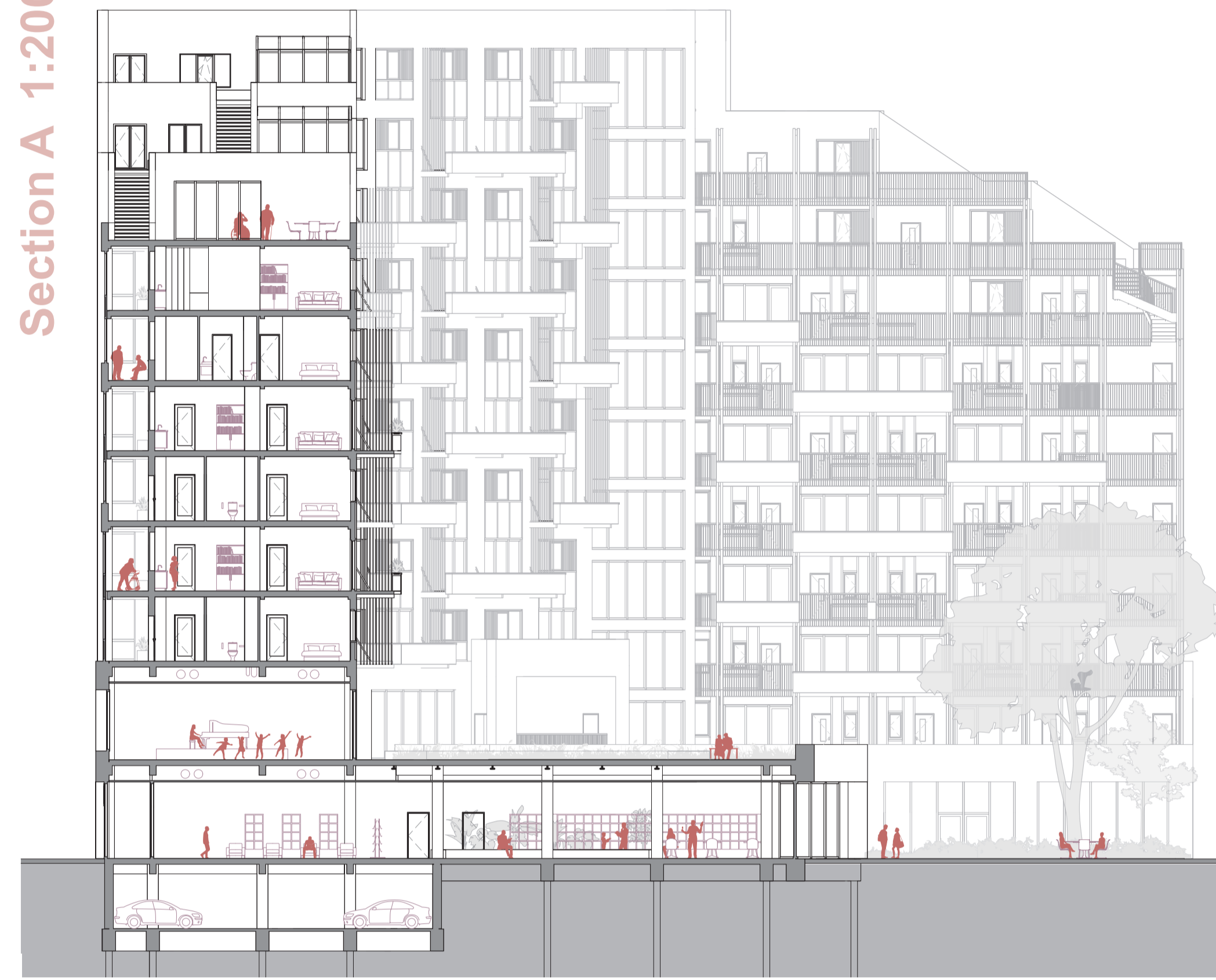
- Accessibility
- Control
- Homelike Environment
- Privacy
- Air Quality

Detailing & Building Construction

3D Section C - Shared Terrace



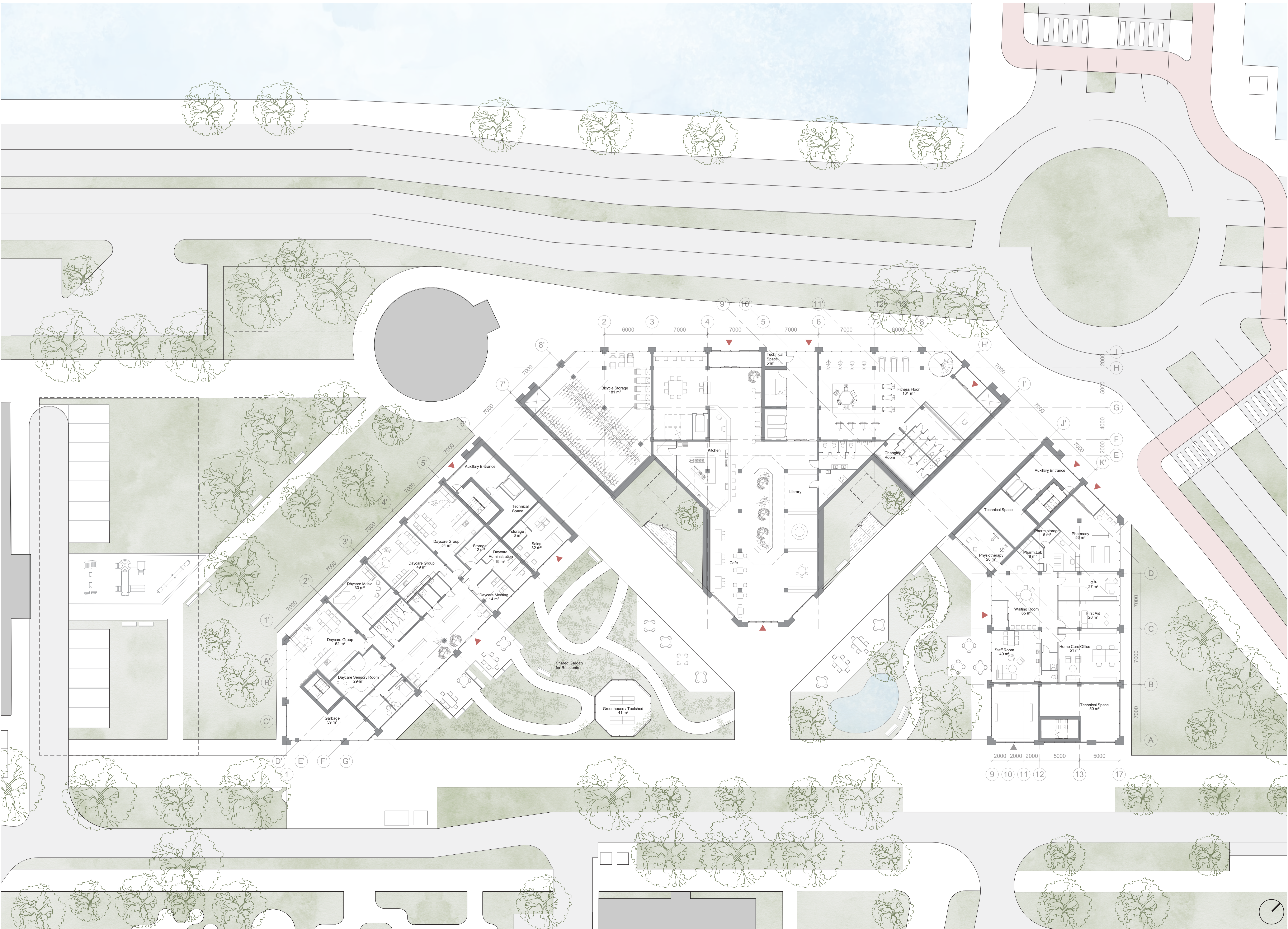
Section A 1:200



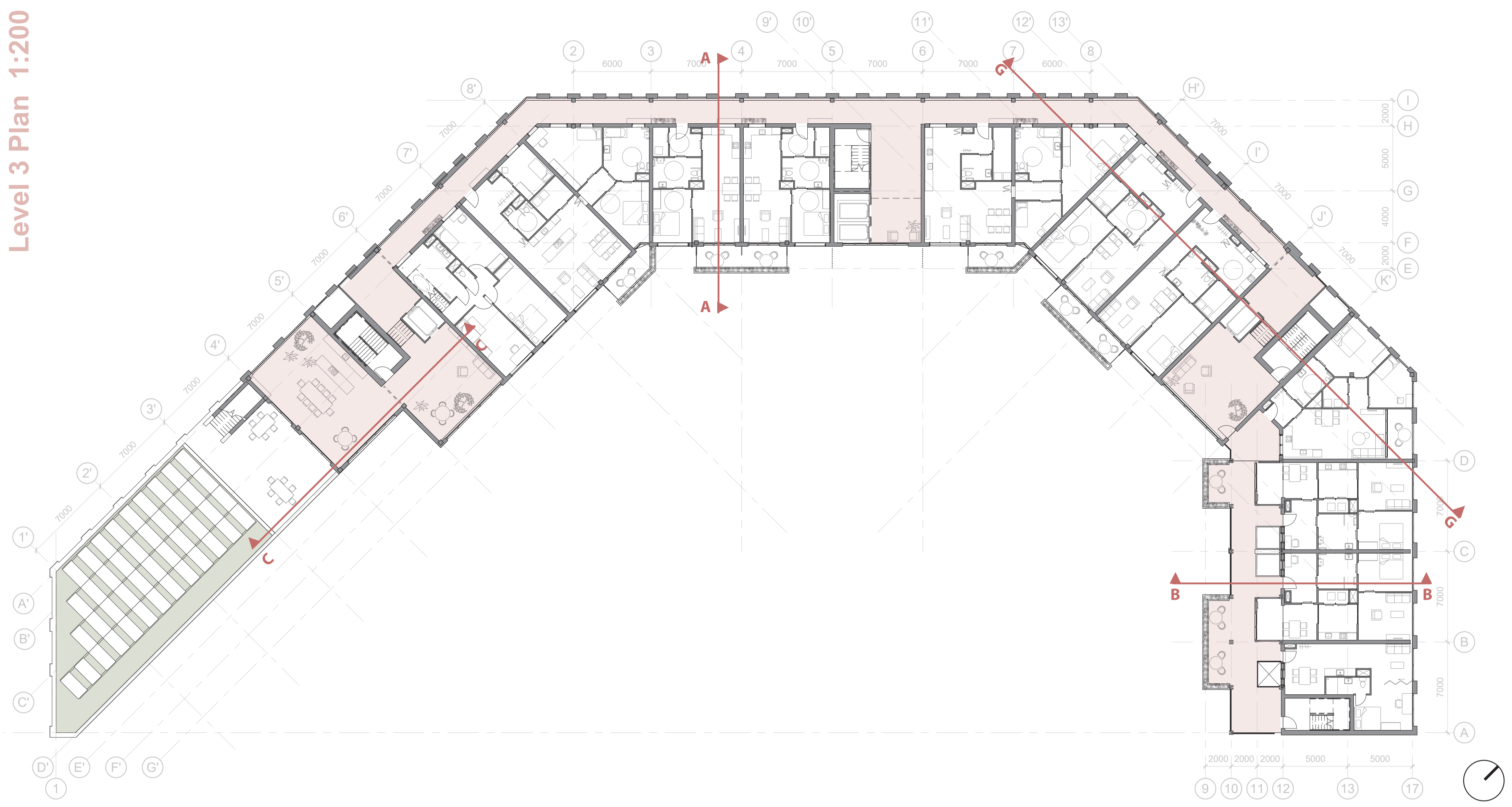
Section B 1:200



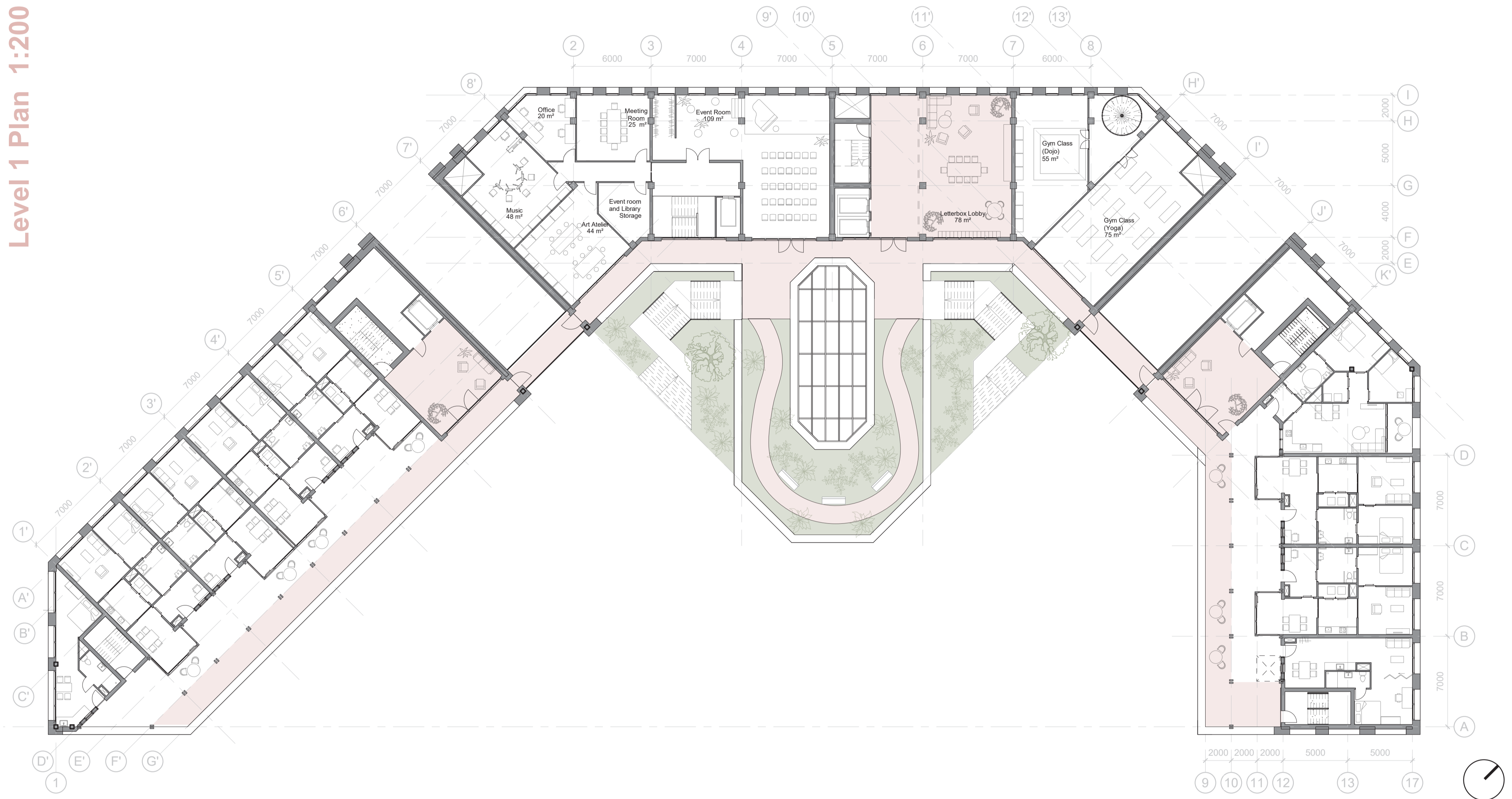
Site and Ground Floor Plan 1:200



Level 3 Plan 1:200



Level 1 Plan 1:200



Courtyard Facade 1:200

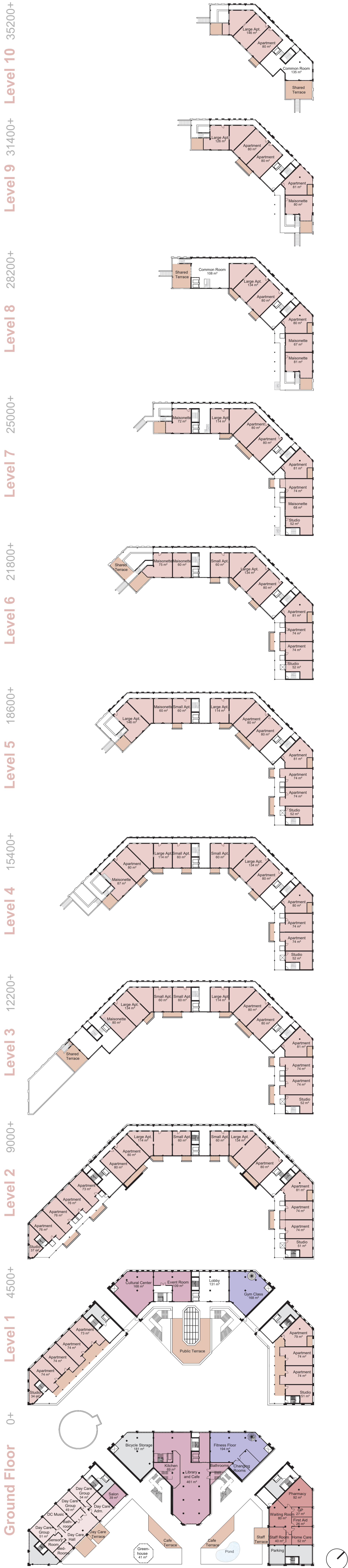


South-Eastern Facade      Eastern Facade      South-Eastern Facade      Southern Facade      South-Western Facade      South-Eastern Facade

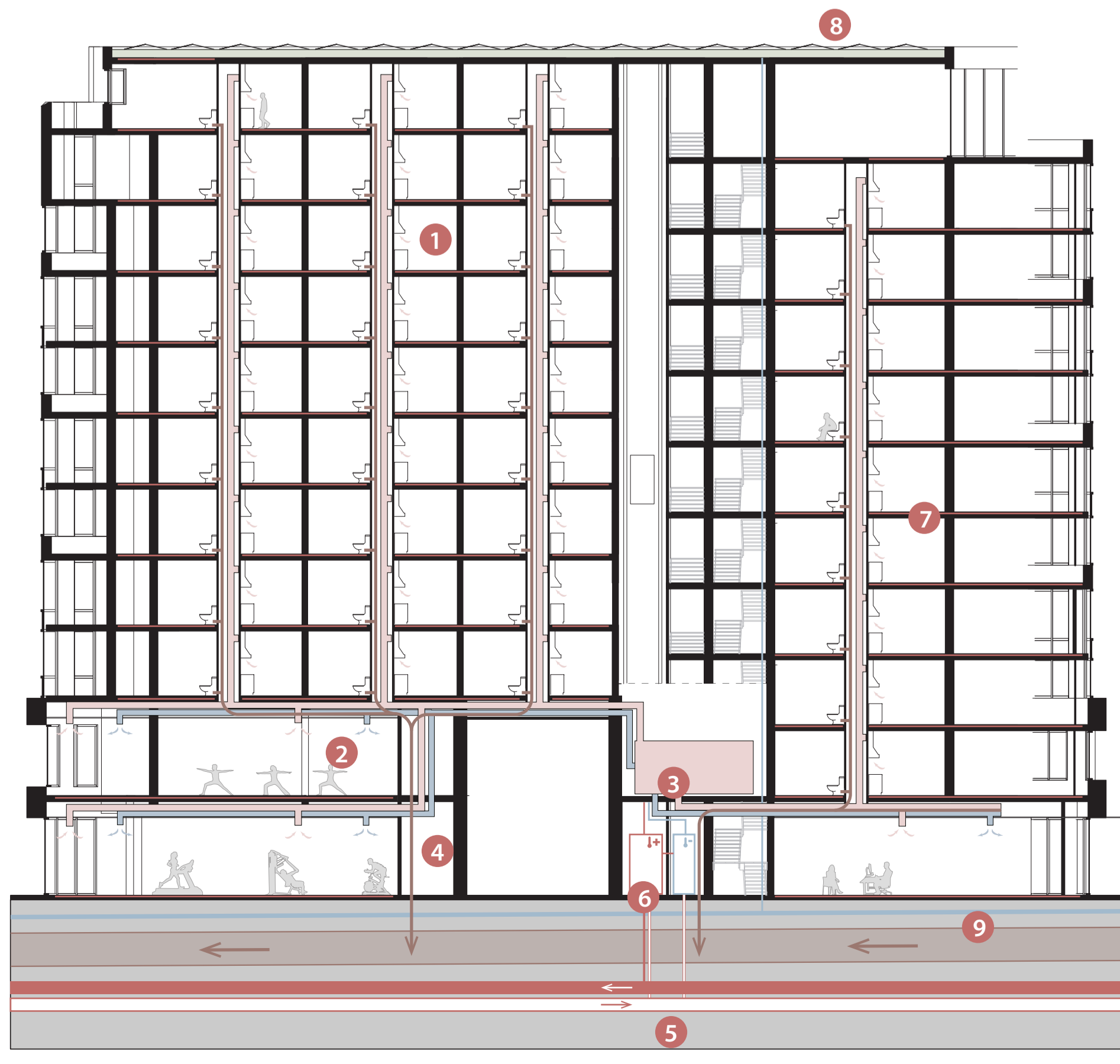
Streetside Facade 1:200



North-Eastern Facade      Northern Facade      North-Western Facade      Western Facade

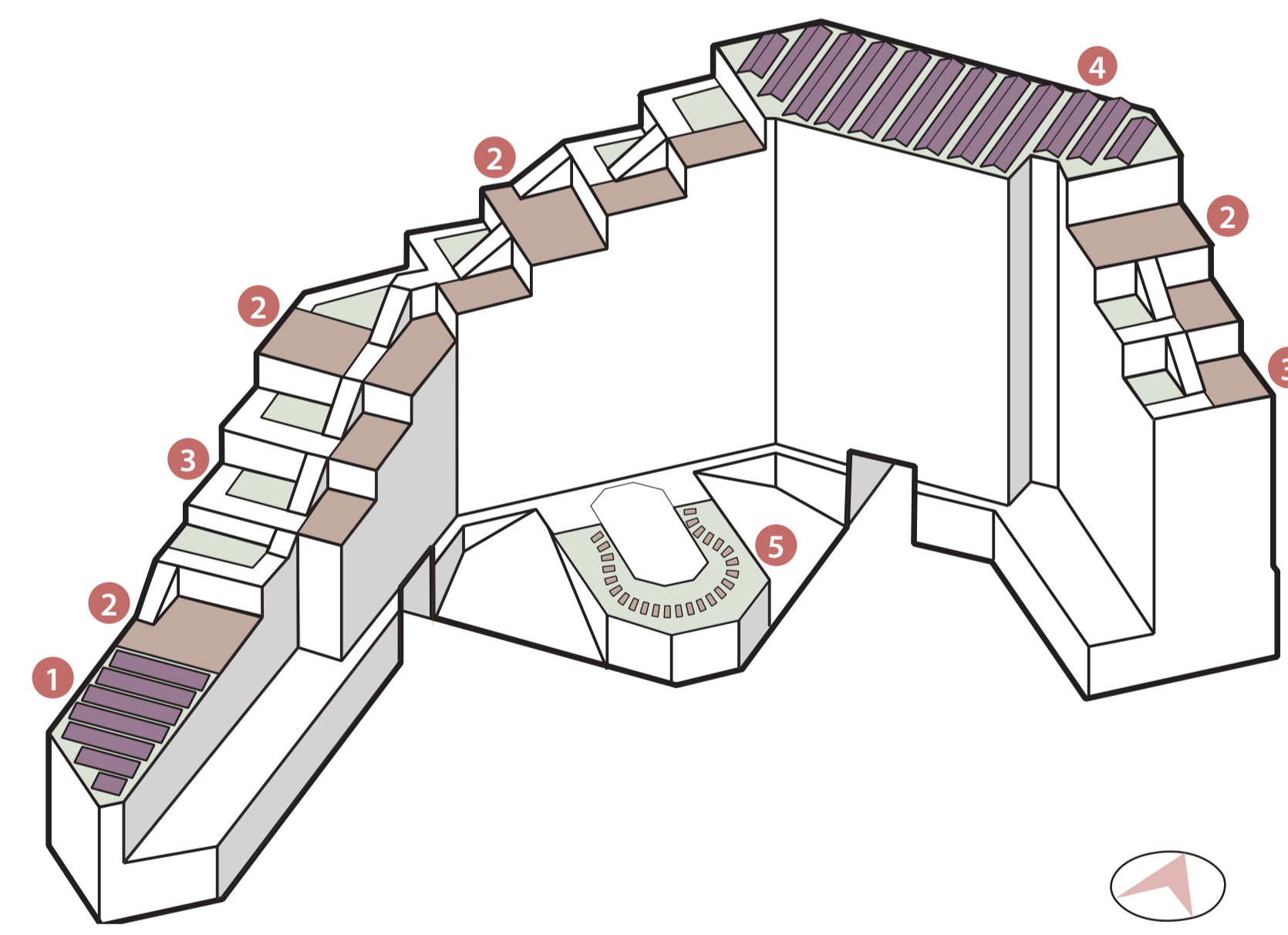


Climate Section G 1:200



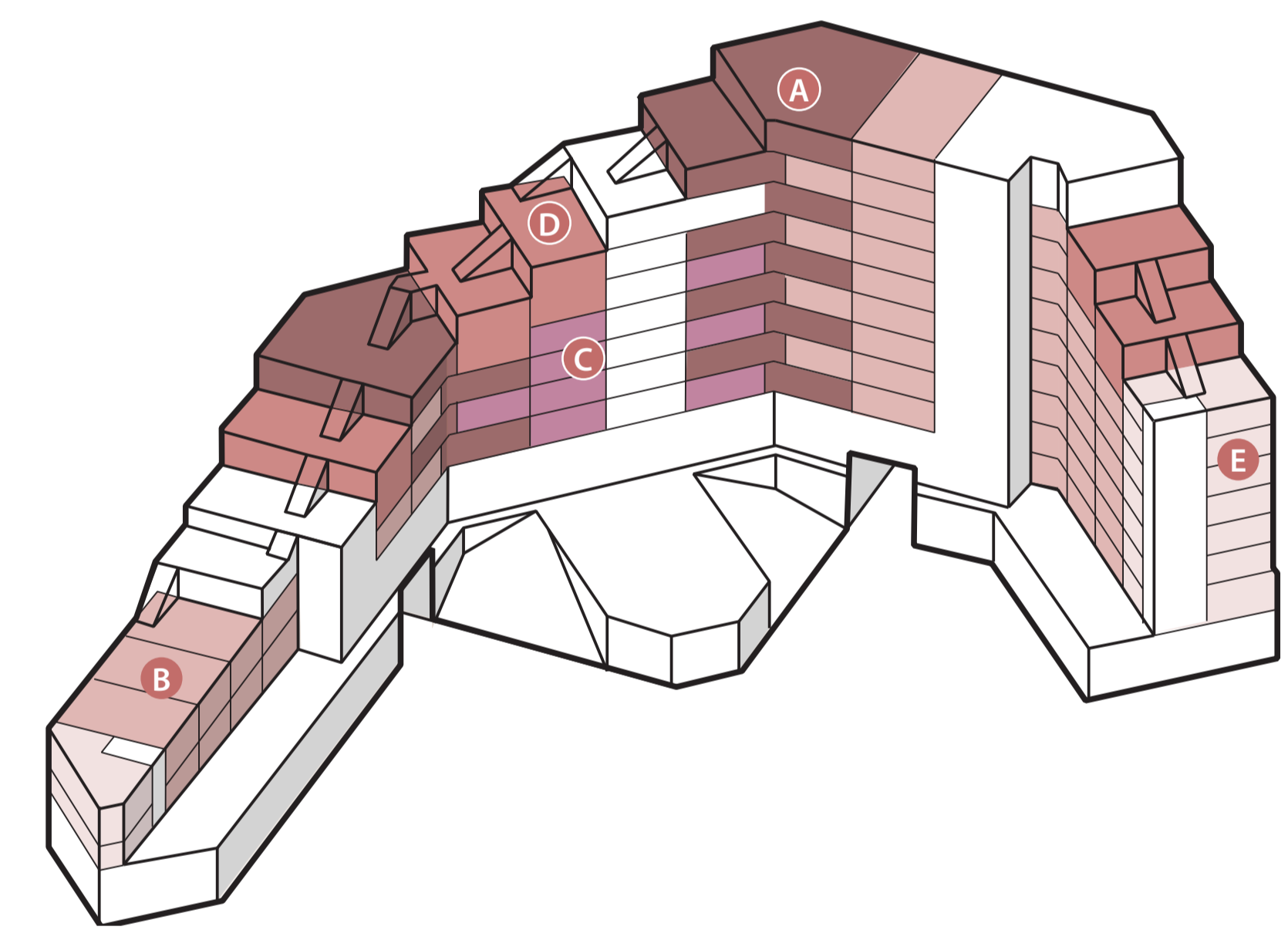
- 1 Ventilation Type C in apartments
- 2 Ventilation Type D in plinth
- 3 AHU's at each gate on 1st floor
- 4 Individual apartment shafts for plumbing and ventilation are combined in plinth
- 5 The building is connected to the present district heating line
- 6 District heating substation creates a secondary heating network for the building. During summer the hot water feeds a Sorption Cooler, which provides cold water for the AHU and the cooling network.
- 7 During winter, warm water from the secondary heating network runs through HIU and heats drinking water and feeds the floor heating. During summer cold water from the cooling network feeds the floor heating.
- 8 The top roof is utilized for East-West facing PV panels placed on a moss roof
- 9 Excess rainwater is drained into the underground water storage

Roof Functions



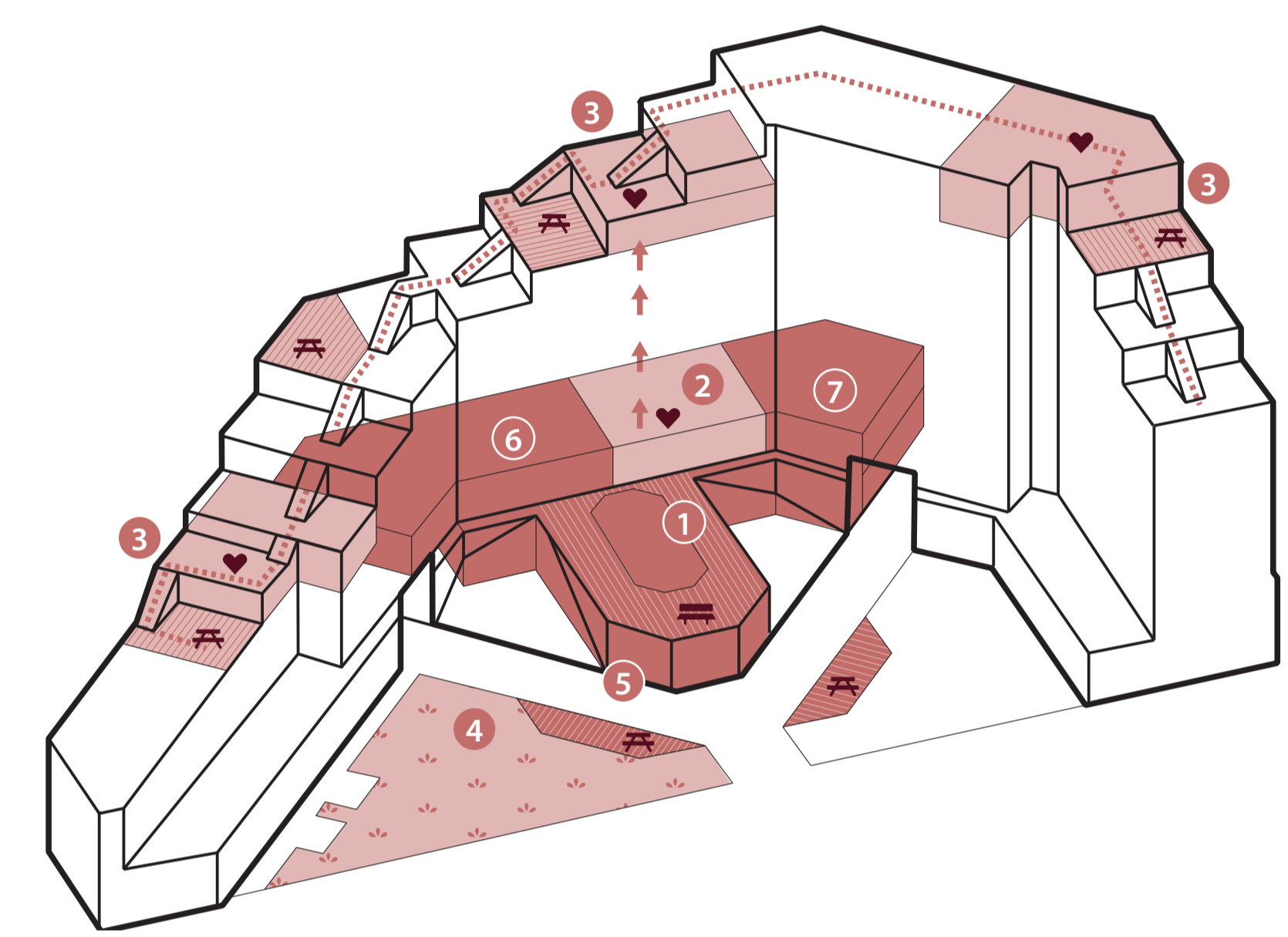
- 1 Moss roof with solar panels facing south.
- 2 Shared terraces for residents.
- 3 Half moss roof and half private terrace for maisonnettes and large apartments.
- 4 Moss roof with solar panels facing east and west.
- 5 Public terrace with low intensity greenery.

Apartment Types



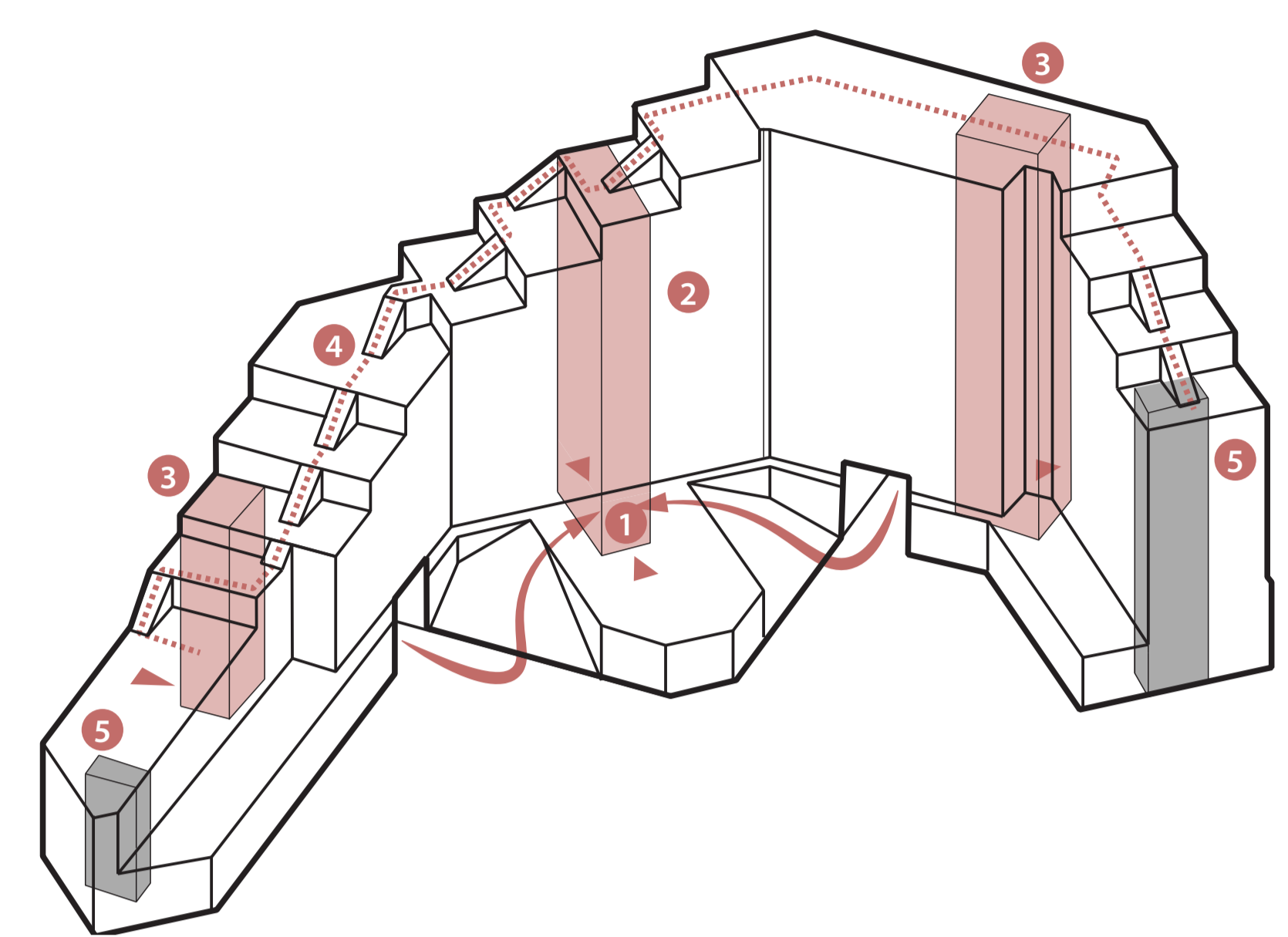
- A Large senior 105 m<sup>2</sup> apartment 3/4 rooms 13
- B Standard senior apartment 2/3 rooms 72 m<sup>2</sup> 21 - outside gallery 16 - inside gallery 9 - corner
- C Small senior apartment 2 rooms 65 m<sup>2</sup> 8
- D Family Maisonnette 145 m<sup>2</sup> 4/5 rooms 5
- E Student/Starter Studio 1 room 45 m<sup>2</sup> 9

Common and Public Spaces



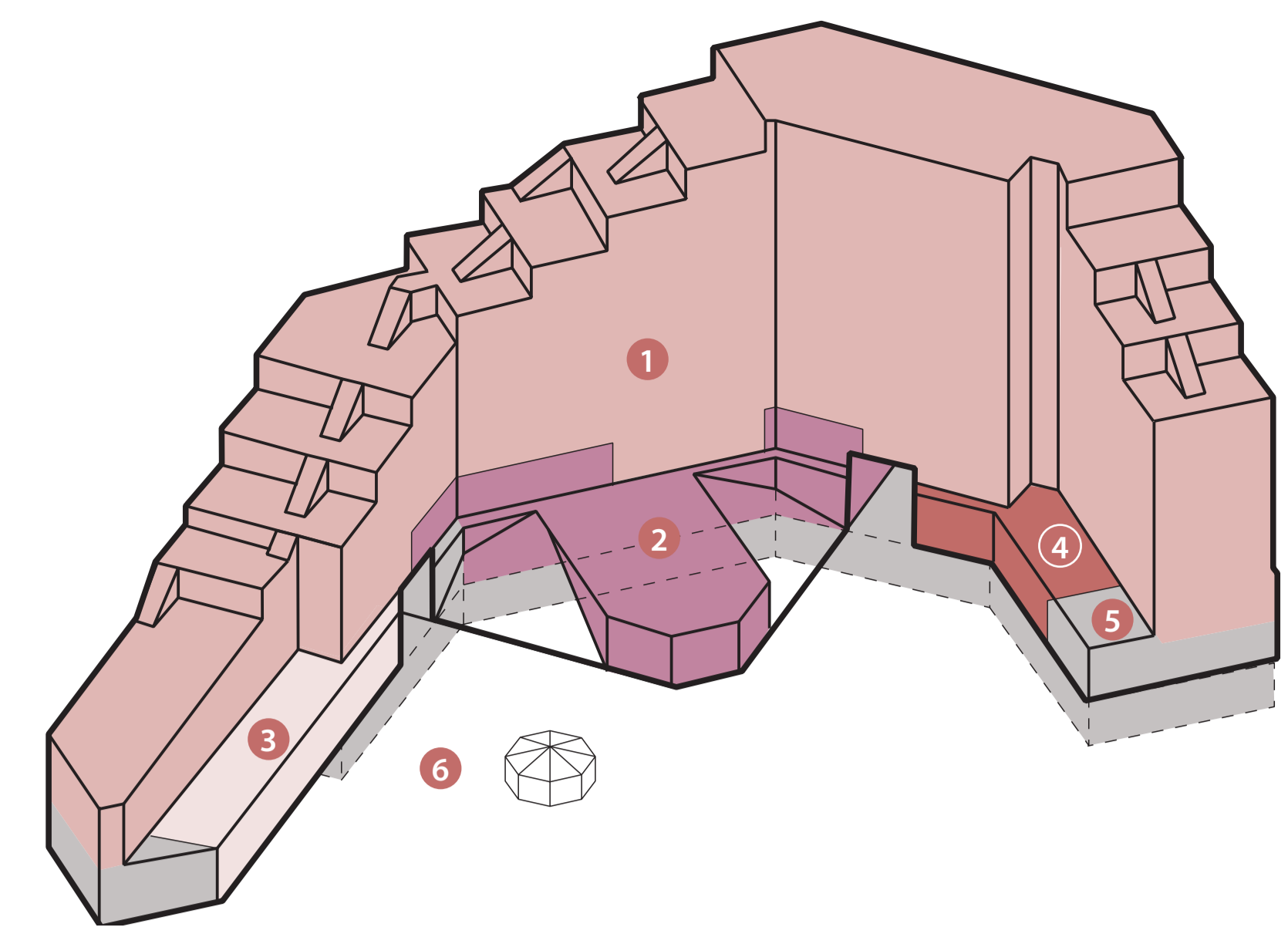
- 1 Large green terrace with skylight for the library at the ground floor. Benches are present at the tip of the terrace.
- 2 Main Entrance with mailboxes of the entire block with common living room focused on boardgames and reading newspapers.
- 3 Common rooms with large kitchens and shared terraces, connected by terrace stairway.
- 4 Communal Garden for residents and daycare patients.
- 5 Public Cafe and Library with outdoor terraces
- 6 Public Cultural Center with event room, meeting rooms, art and music classrooms.
- 7 Public Gym with fitness floor and classrooms for group training.

Circulation



- 1 Main Entrance at the Large Terrace on the first floor at the courtyard side.
- 2 Main vertical circulation axis with two large elevators and visible stairs.
- 3 Additional vertical circulation axes with one elevator in each.
- 4 Stairway connecting public and private roof terraces.
- 5 Fire escape staircases.

Project Brief

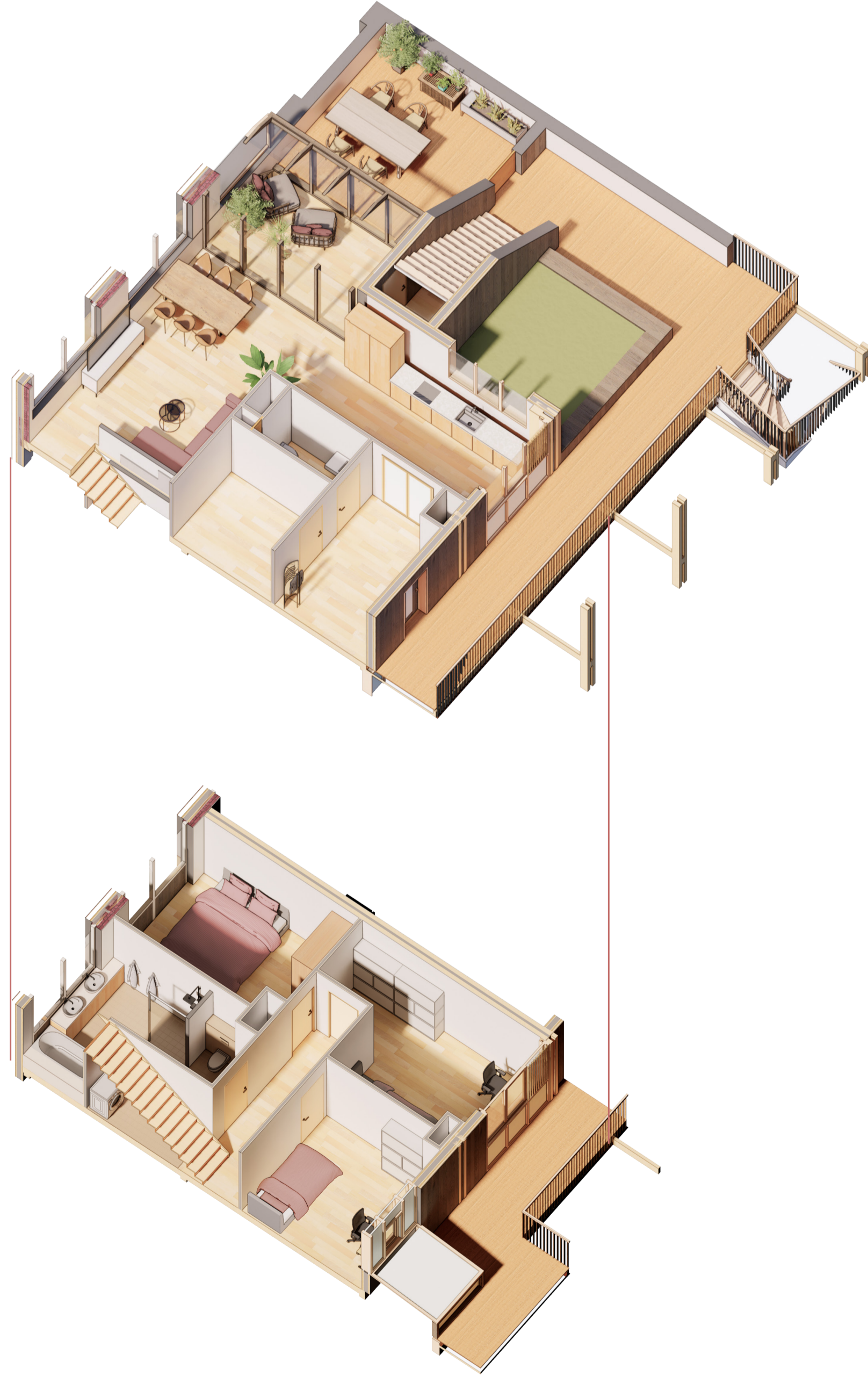


- 1 81 apartments for seniors, families and students
- 2 Public plinth with Library, Cafe, Cultural Centre, Salon and Gym
- 3 Dementia Daycare
- 4 Medical Center with GP, Pharmacy, Physiotherapist and Home Care Administration.
- 5 Fire escape staircases.
- 6 Communal Garden

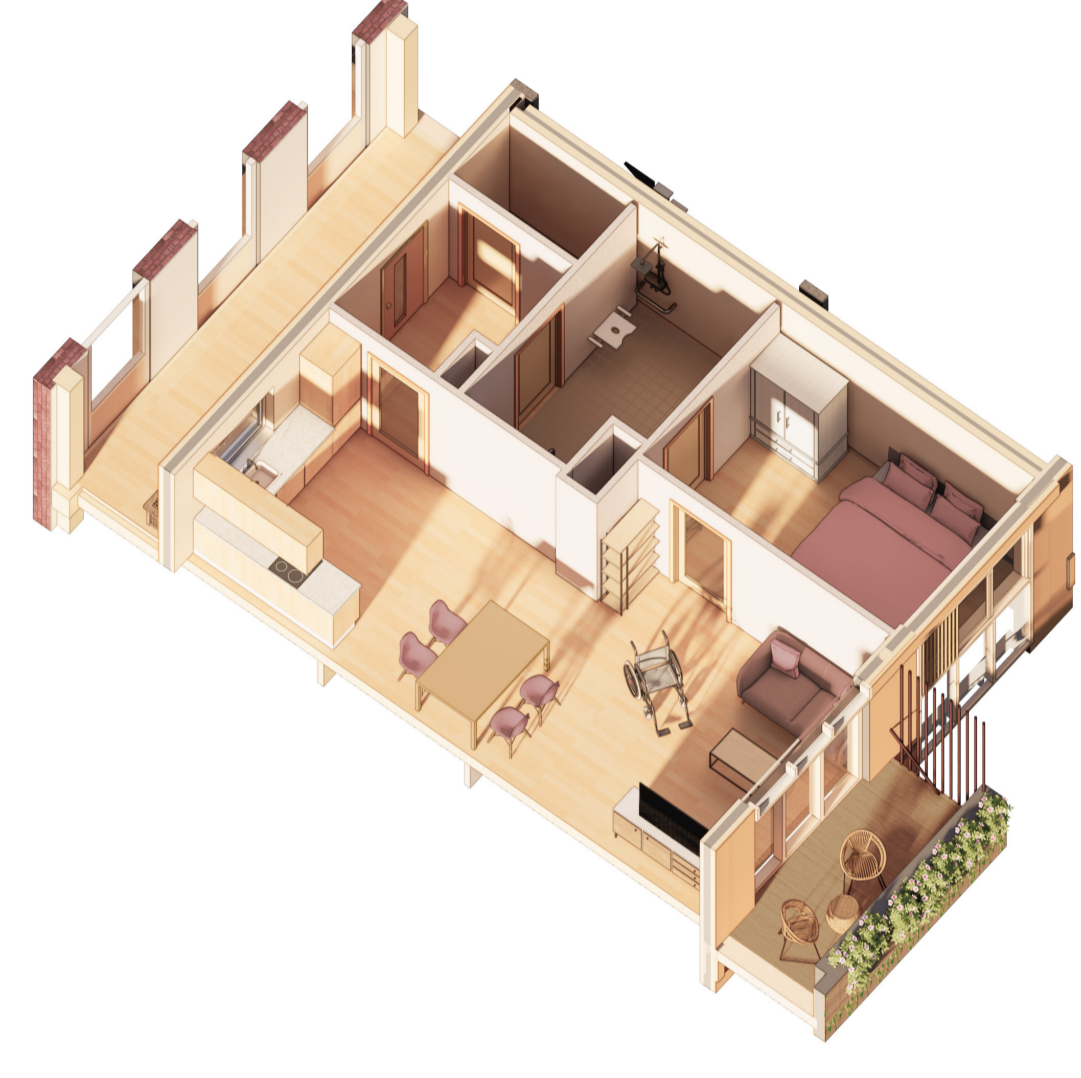
E - Starter/Student Studio 45 m<sup>2</sup>



D - Family Maisonnette 145 m<sup>2</sup>



C - Small Senior 65 m<sup>2</sup>



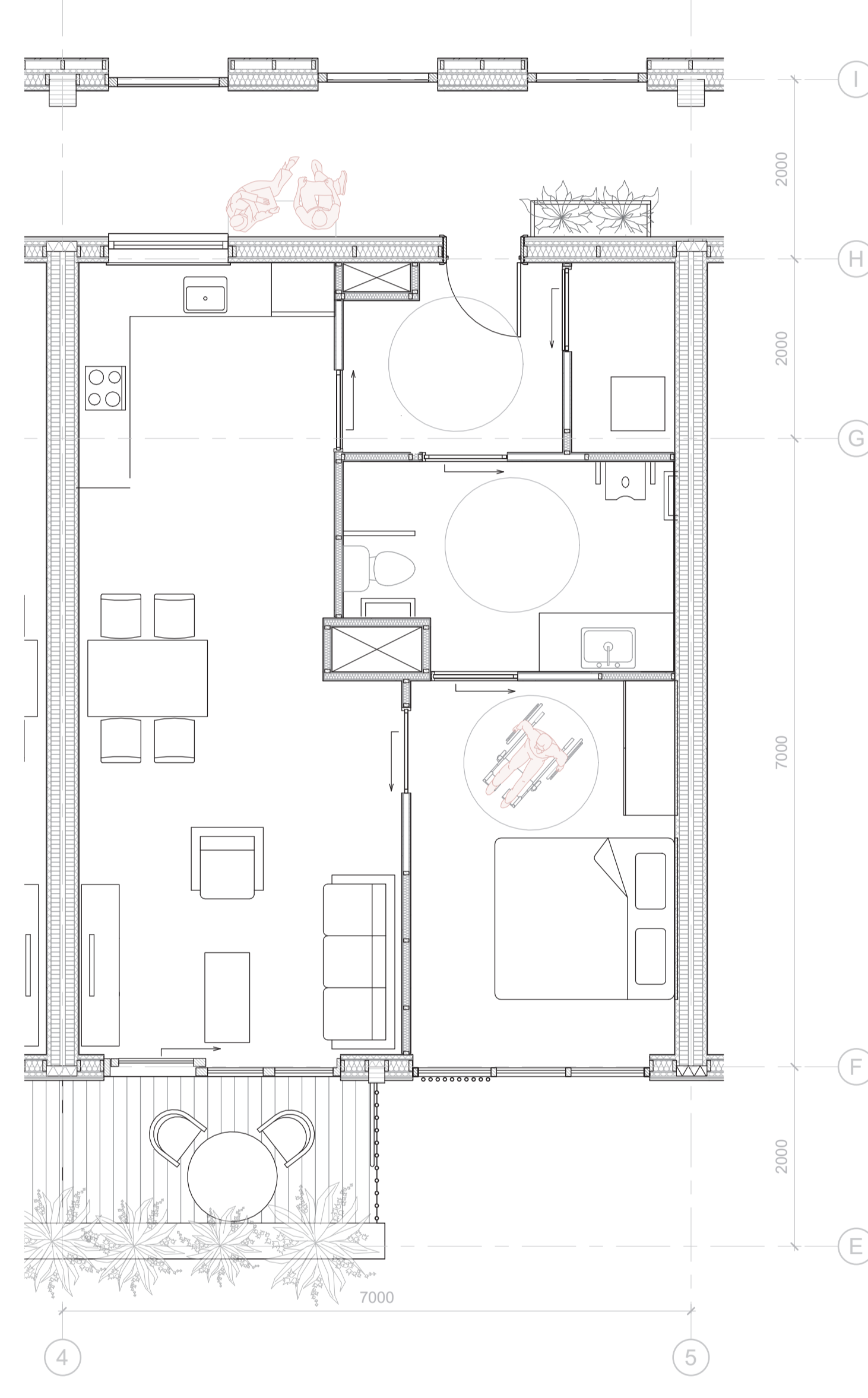
B - Standard Senior 72 m<sup>2</sup>



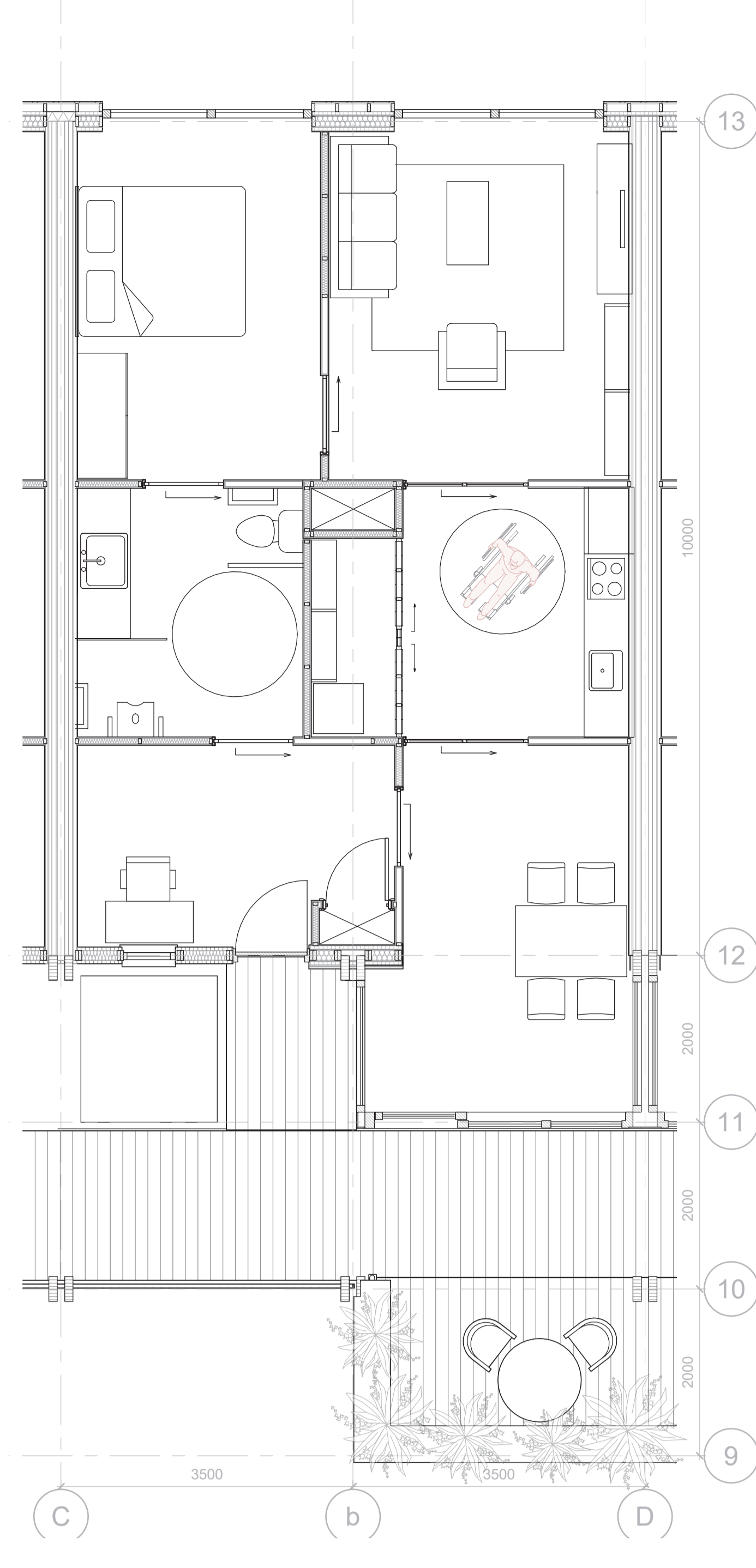
A - Large Senior 105 m<sup>2</sup>



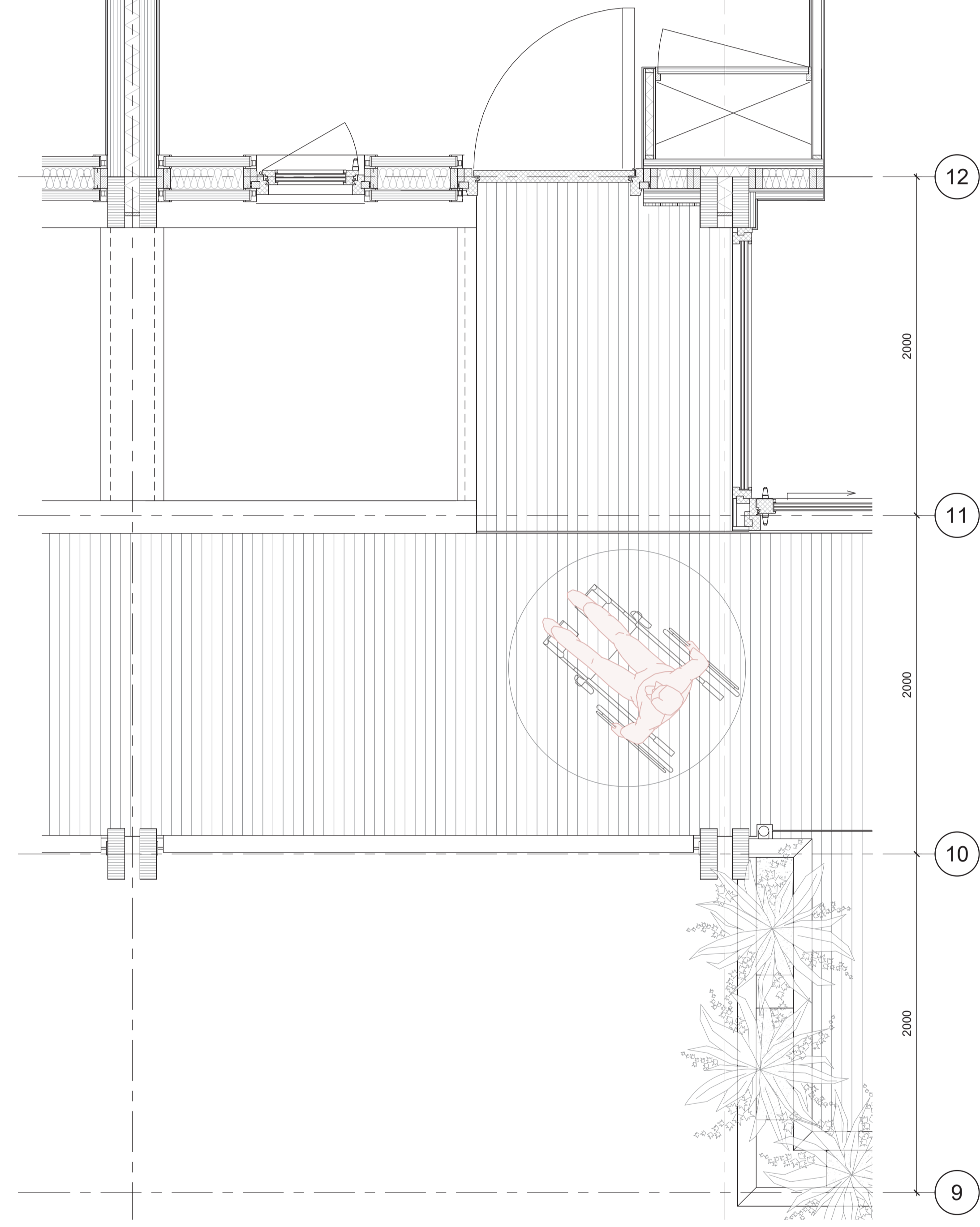
Small Senior Apartment 65 m<sup>2</sup> 1:50



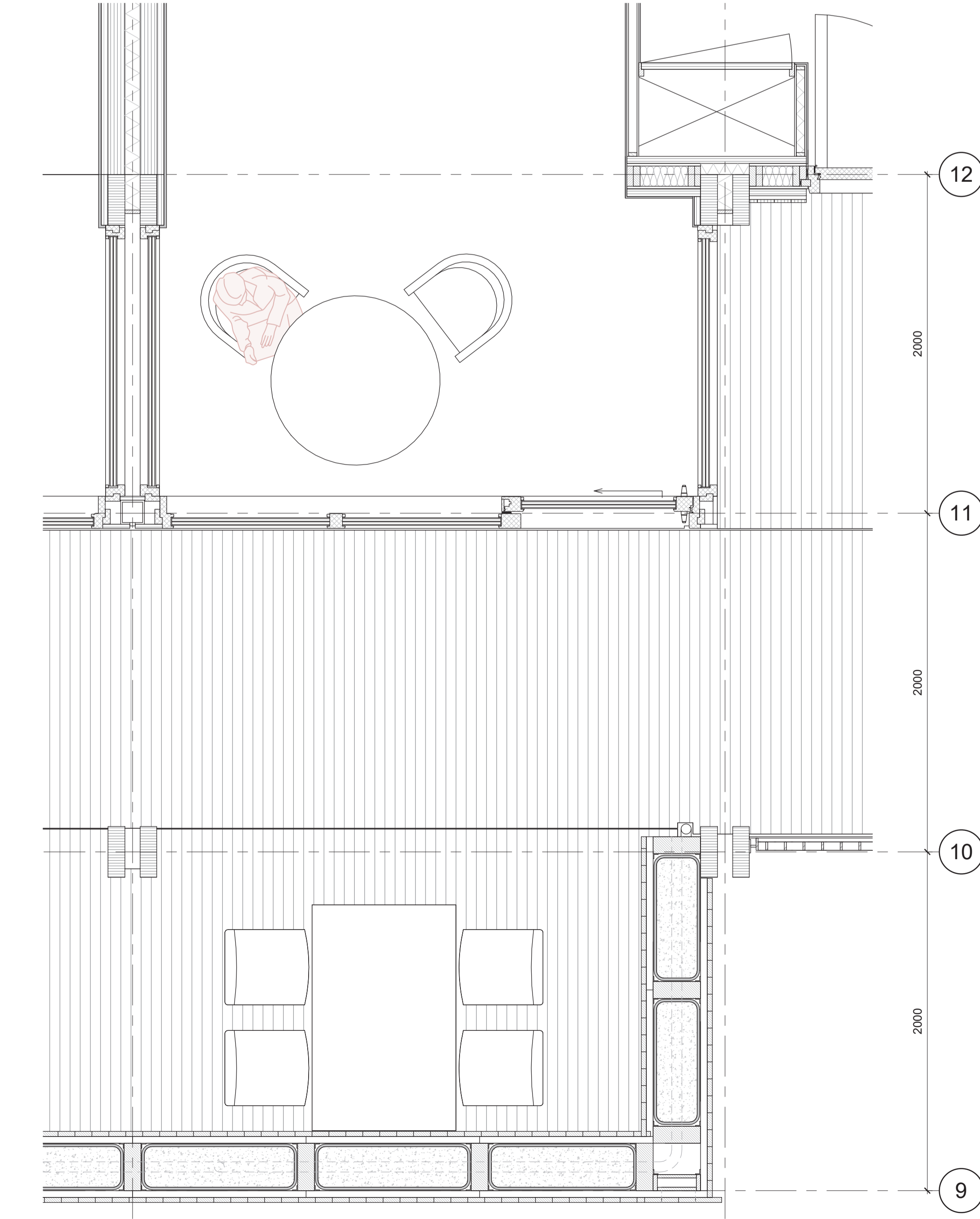
Standard Senior Apartment 72 m<sup>2</sup> 1:50



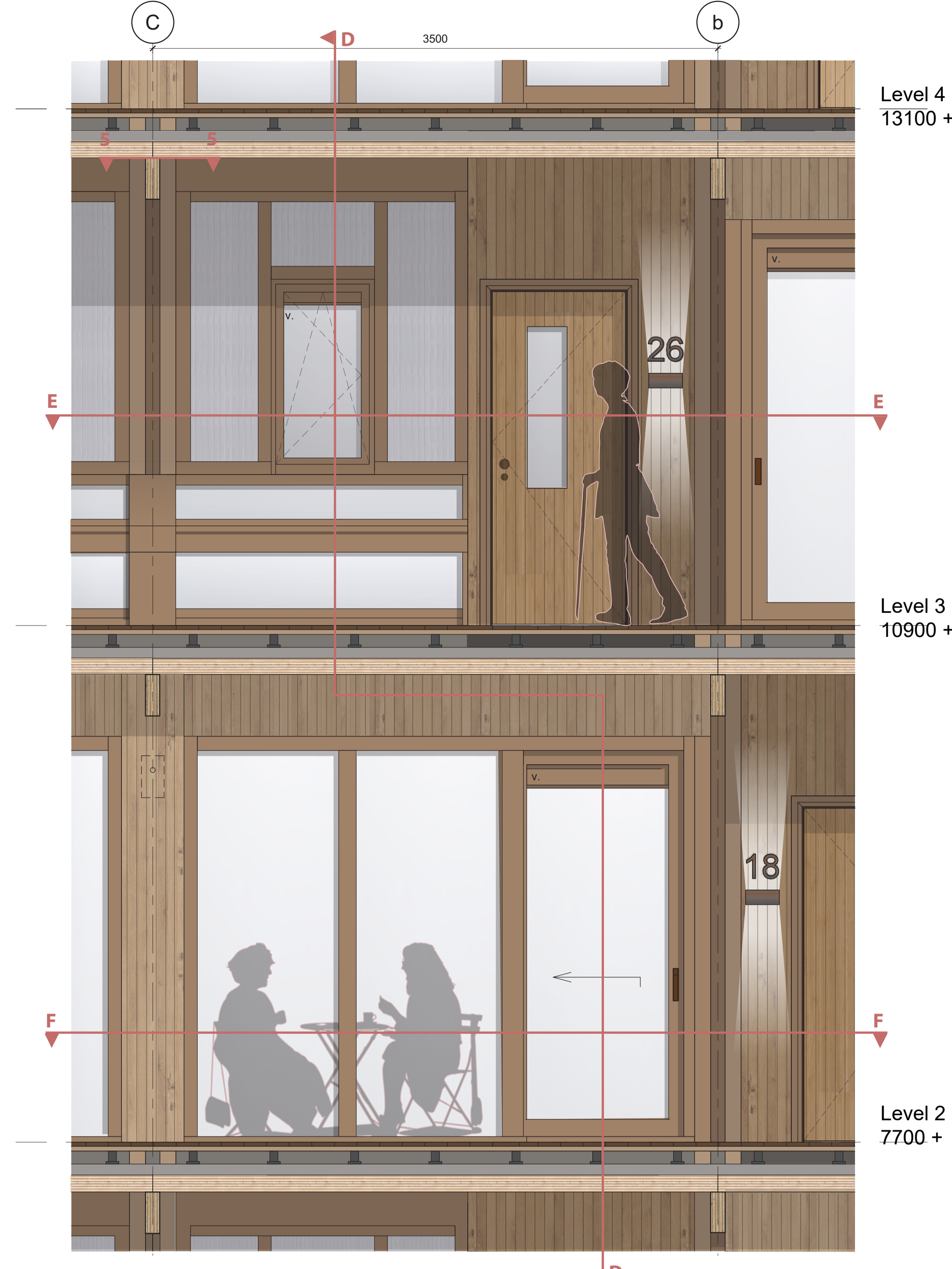
Horizontal Facade Section E 1:20

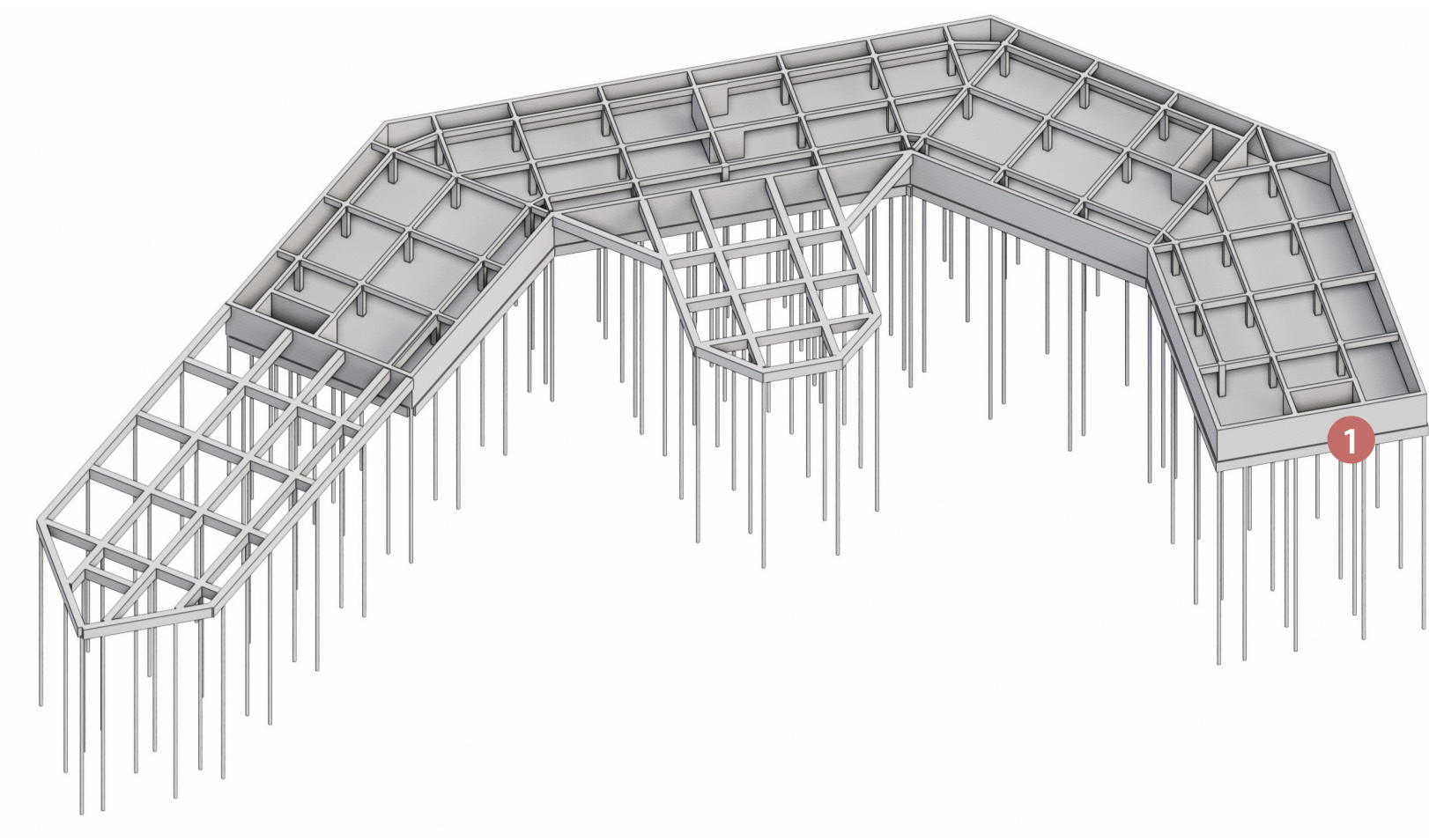
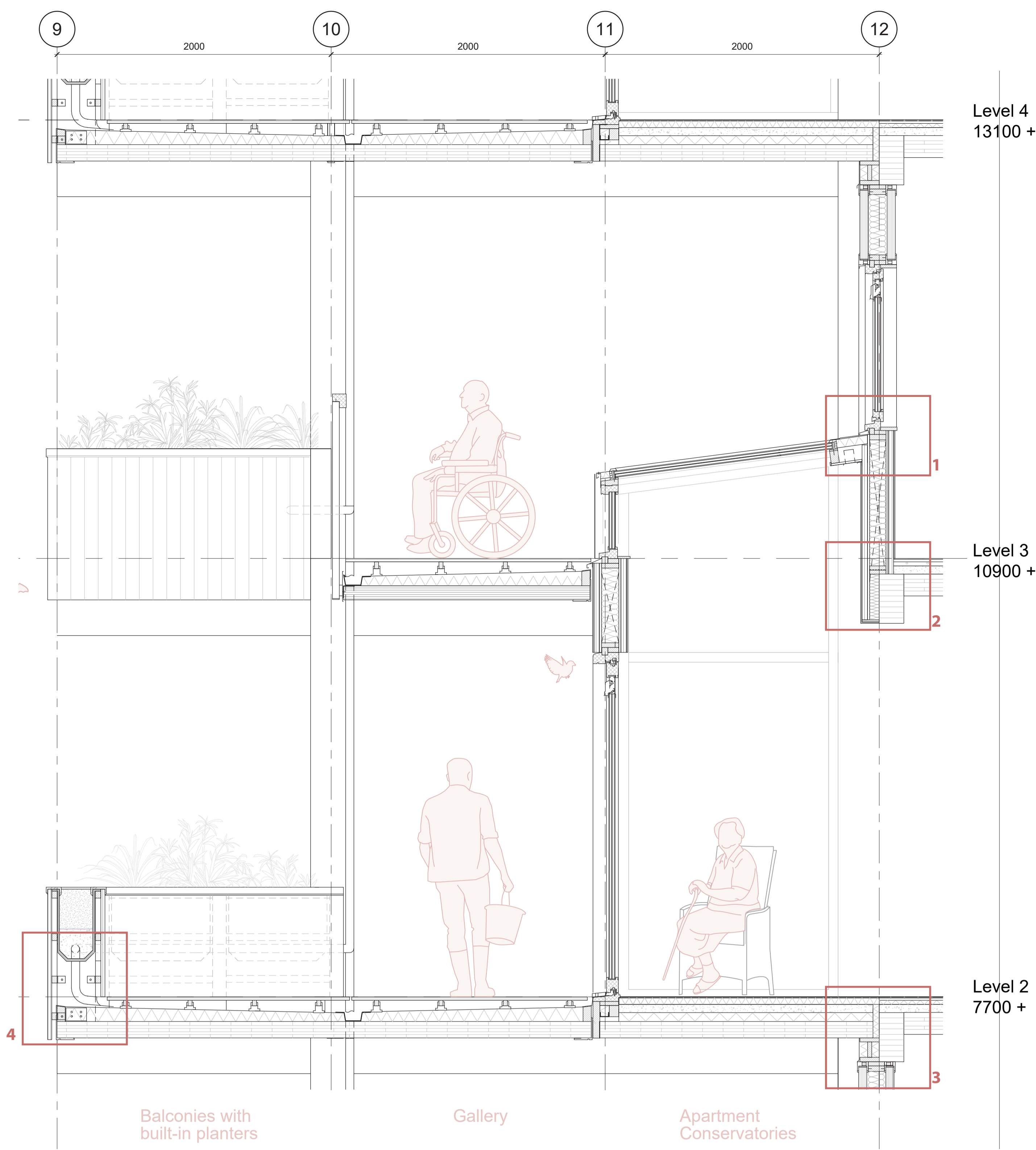


Horizontal Facade Section F 1:20

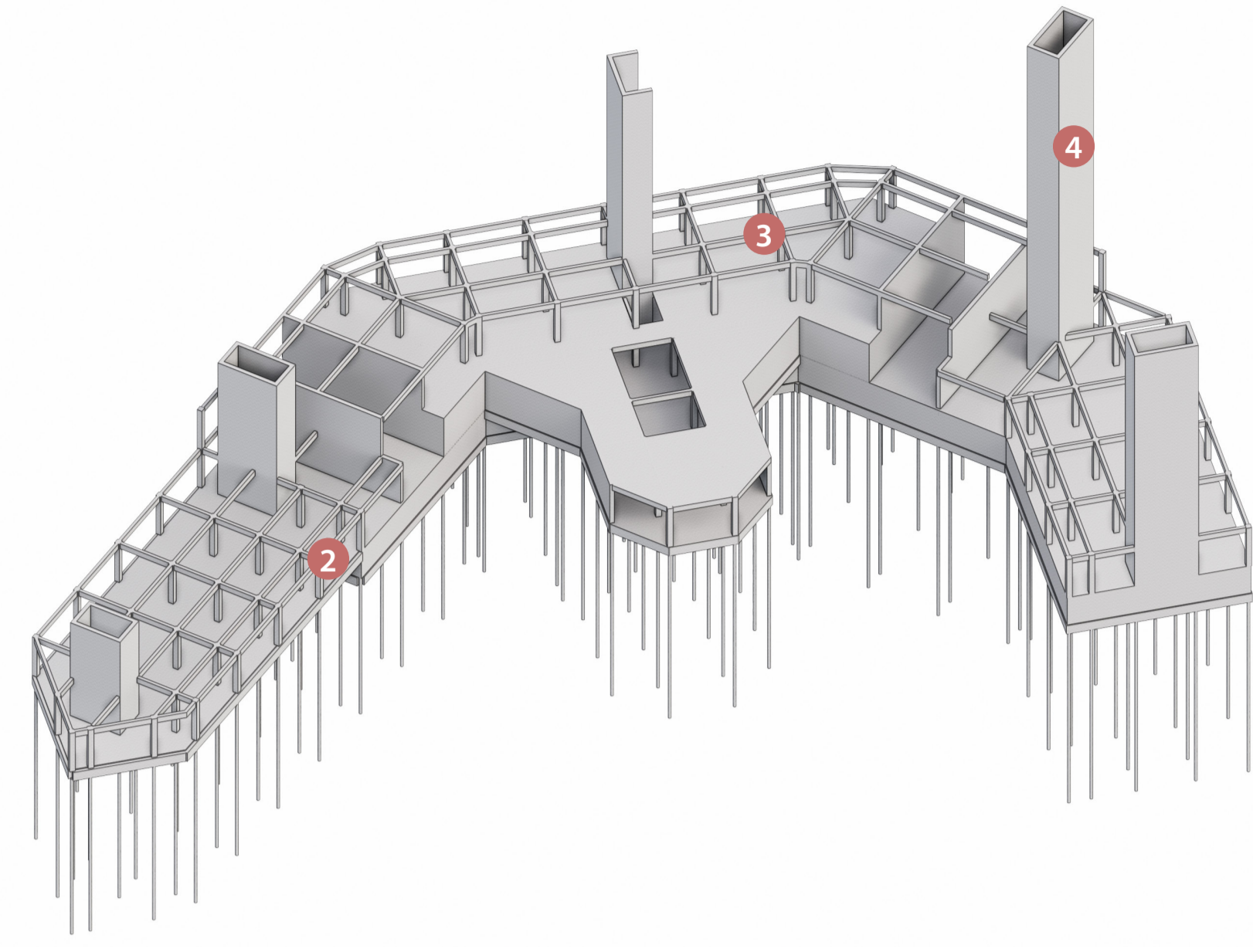


Facade Fragment 1:20





1 Pole foundation and Basement in concrete

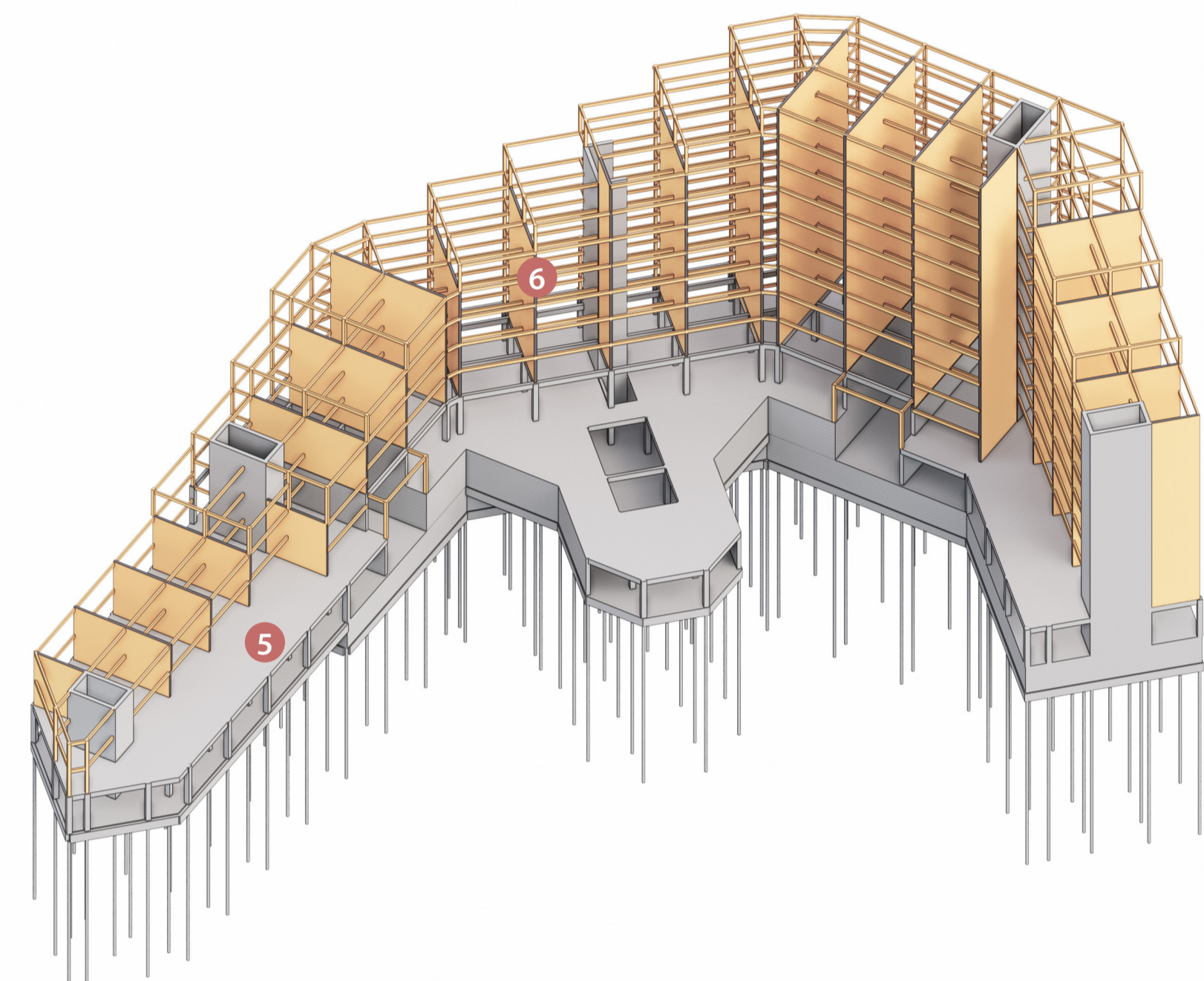


2 The load bearing system in the plinth is constituted of concrete beams and columns. This allows for more flexibility and reduces structural thickness.

The beams also act as the secondary stability system, transferring loads from the facades to the cores.

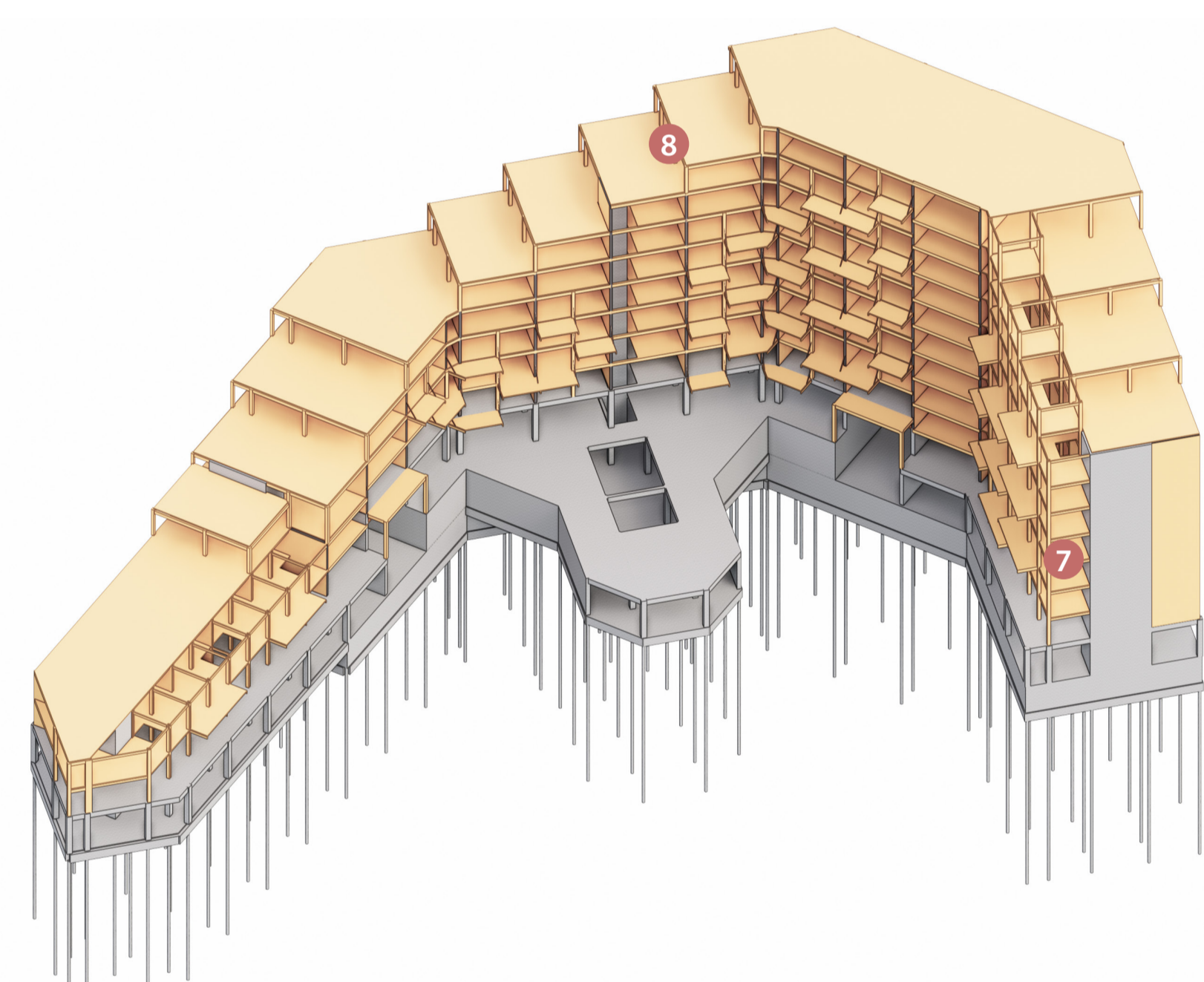
3 The plinth on the North-Western facade spans two levels. Therefore beams and columns of this level are made in concrete too.

4 Five concrete cores provide stability in each direction.



5 The first floor is made in concrete to achieve higher spans and achieve better sound insulation of the public functions.

6 The load bearing system in the residential levels consists of CLT walls, supporting glulam floor beams. These beams also serve as the secondary stability system.



7 The galleries are supported by auxiliary glulam columns and beams. These columns are connected to the residential floor beams and are thus connected to the secondary stability system.

8 At each top terrace floor the CLT wall is replaced by glulam beams and columns, to accommodate large windows and sliding doors.

