

P5 PRESENTATION: DESIGNING DIGNITY

Designing care facilities to enhance autonomy and quality of life for people with dementia

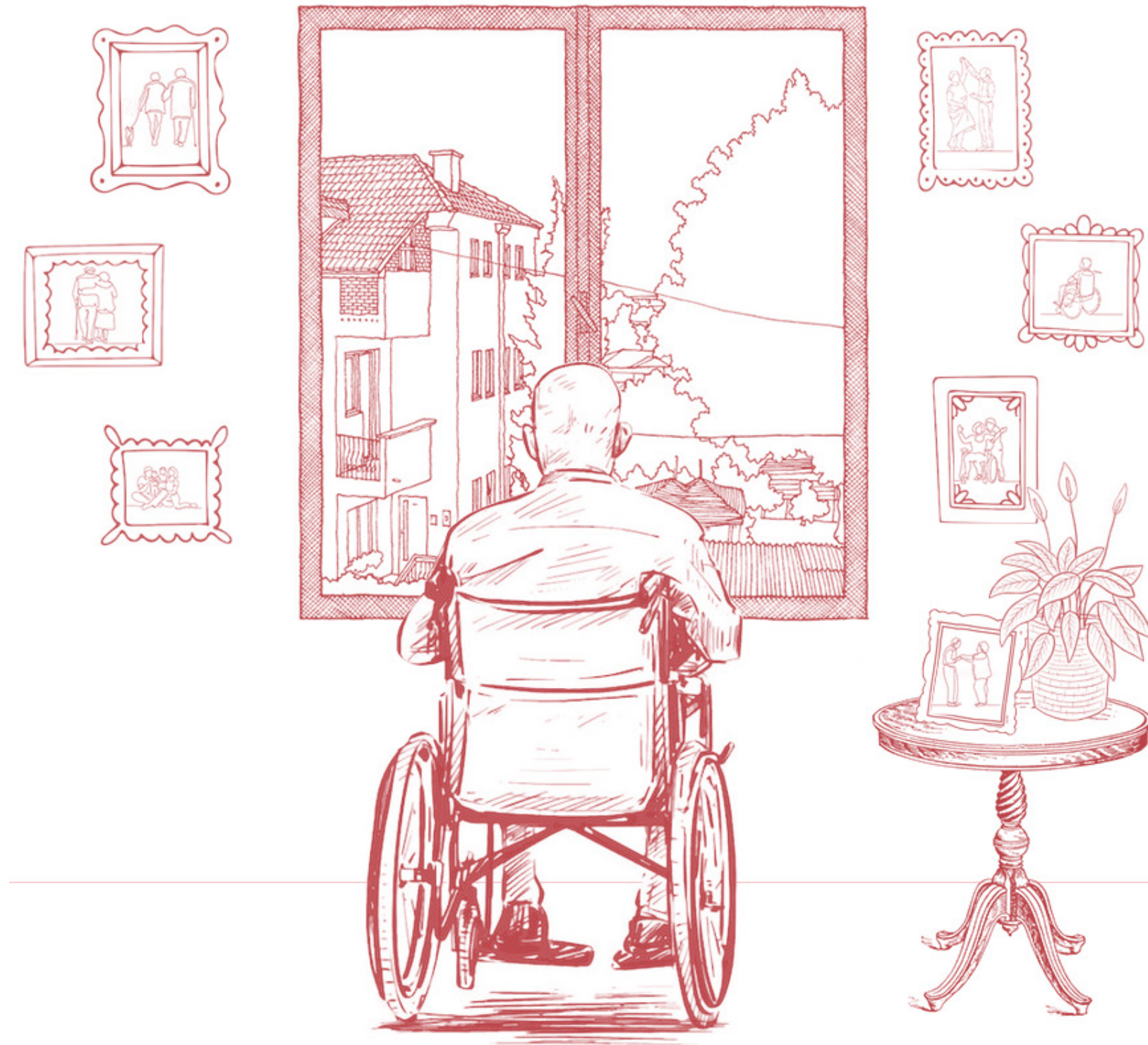


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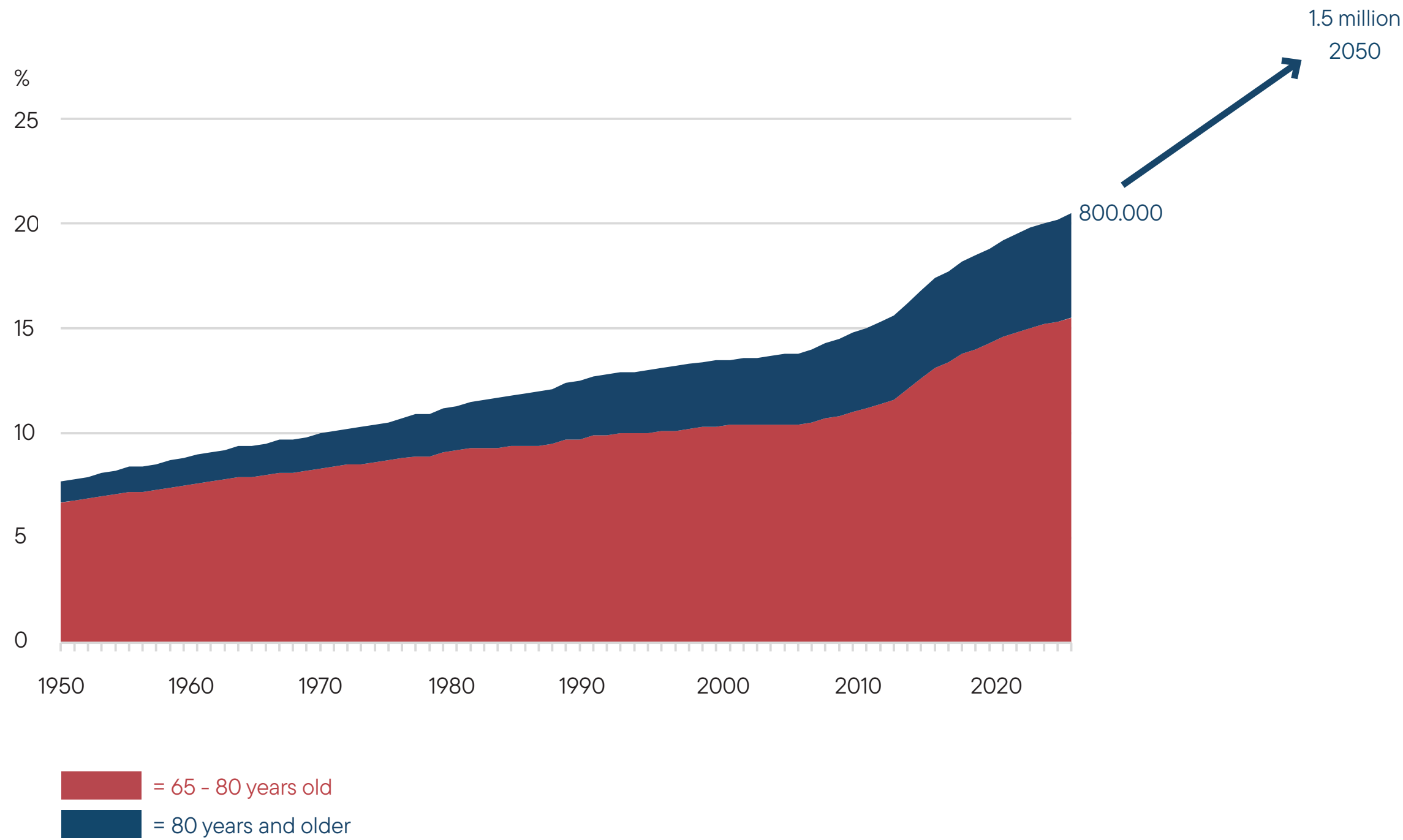
- 1. Research
- 2. Location
- 3. The project

'Outside these walls is the real world. In here, you drift away. And if you do nothing, you fade' – Ad

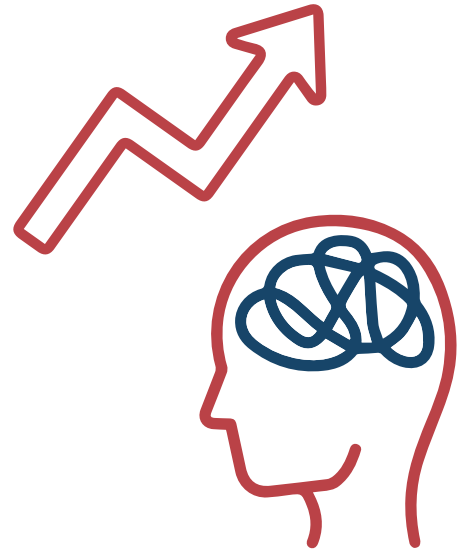
1 IN 5 PEOPLE WILL GET DEMENTIA



PROBLEM STATEMENT



PROBLEM STATEMENT



The increasing number of elderly people with dementia



The growing shortage of healthcare staff



Insufficient focus on well-being, autonomy, quality of life and social integration in care complexes

POSITION



Autonomy on the 3 different scales
(environment, building & room)



Quality of life



Social integration with the
neighborhood



Different solutions for different cultural
groups

RESEARCH QUESTION

“How can a care facility for people with dementia be designed to foster a humane and inclusive environment, with a focus on promoting autonomy and quality of life, for example in a neighborhood like Tarwewijk?”

RESEARCH QUESTION

“How can a care facility for people with dementia be designed to foster a humane and inclusive environment, with a focus on promoting autonomy and quality of life, for example in a neighborhood like Tarwewijk?”

1. How can the **surroundings** of a care facility contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life?

2. How can the **layout of a care facility building** contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life?

3. How can a **residents room** in a care facility contribute to fostering a humane and inclusive environment, with a focus on promoting autonomy and quality of life?

4. What specific needs does the Tarwewijk neighborhood have concerning care and housing for people with dementia, and how can these needs guide the design and integration of such facilities?

FIELDWORK

RANDERODE, APELDOORN



(Zorggroep Apeldoorn, n.d.)

BOSWIJK, VUGHT



(EGM Architecten, 2011)

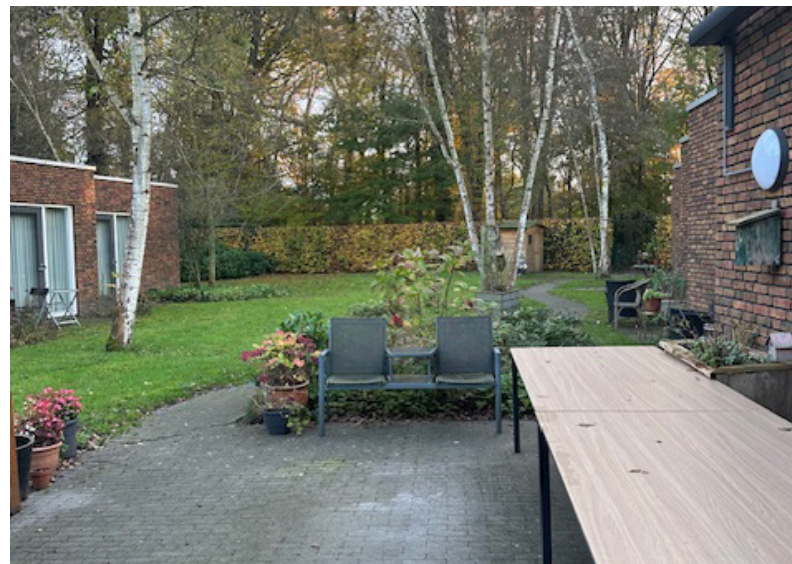
REIGERSHOEVE, HEEMSKERK



(Stichting Reigershoeve, 2024)



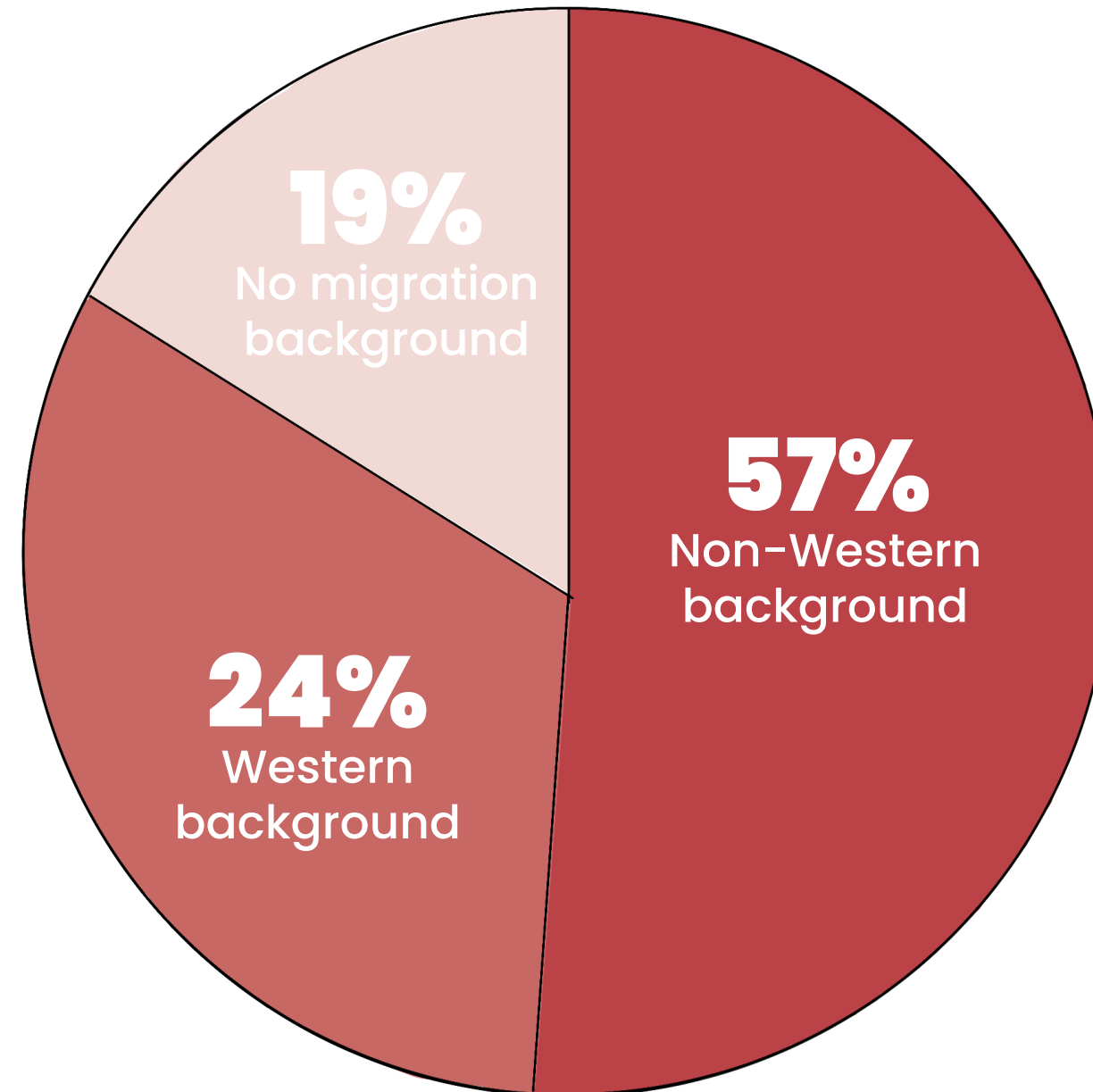
(Own work)



(Own work)



(Own work)



CONVERSATION WITH A PERSON WITH A *MOROCCAN* BACKGROUND AT THE HOUSE OF HOPE IN TARWEWIJK

“In Moroccan culture, **caring for one’s parents is a deeply ingrained tradition**. Elderly family members are not placed in nursing homes but are instead **cared for at home until the end of their lives**. Grandparents often hold a central, authoritative role within the household.”

CONVERSATION WITH A PERSON WITH A *SURINAMESE* BACKGROUND AT THE HOUSE OF HOPE IN TARWEWIJK


“Many people with multicultural backgrounds often **prefer to care for their own parents** rather than placing them in care homes.”

CONVERSATION WITH A PERSON WITH A *TURKISH* BACKGROUND AT THE MILLINXPARKHUIS


“**In the Turkish community, it is customary for children to care for their parents, often inviting them to live in their homes**. Sending elderly parents to a nursing home is not part of the cultural norm. One Turkish individual described temporarily relocating from the Netherlands to Turkey to care for their parents.”

Environmental scale


ORIENTATION & ACCESSIBILITY




Providing a sense of purpose or reward for using the walking paths by adding destinations



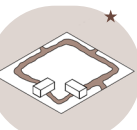
Place resting benches at regular intervals along walking paths, ensuring they are wheelchair accessible and provide shade



Incorporate recognizable landmarks such as flowerbeds, small animal enclosures, or sculptures to help residents orient themselves and have experiences and activities while walking



Ensure pathways link the care facility to the local community, allowing residents to walk to local destinations like parks or shops



Design clear paths with consistent materials and colors to ensure safety and accessibility for residents using mobility aids

PRIVACY & SOCIAL SPACES



Create social zones in the environment to stimulate interaction and connection with the neighborhood




Create small secluded areas within the landscape where residents can enjoy some privacy




Position the care facility in a central or easily accessible neighborhood location

OUTDOOR ENVIRONMENT




Ensure that water features are safely fenced to prevent accidents while still providing a calming atmosphere




Provide enough green and blue spaces, as this is linked to a better quality of life


AUTONOMY



Connect green spaces in urban areas to enhance biodiversity, attract wildlife, and provide engaging environments for residents

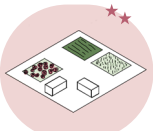


Varying lampposts, benches, and street furniture can act as landmarks, helping orientation



Provide safe color-coded routes throughout the neighborhood to offer clear guidance, helping residents navigate spaces independently


SENSORY ENGAGEMENT




Ensure a varied environment with different sounds, textures and scents



Ensure views of a nearby playground or an animal enclosure, creating lively and dynamic visuals



Provide soothing sounds in the environment, such as flowing water or birds



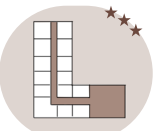
Incorporate fragrant flowers in the environment, like lavender, to stimulate the senses




Provide different textures in the outdoor environment like rough stones, smooth grass or textured bark

Building scale


ORIENTATION & ACCESSIBILITY




Design simple floor plans. Use straight, L or H shaped corridors for clear sightlines




Avoid dead-ends. Place seating areas at the end of a corridor



Include seating areas along walking routes to provide rest points and serve as informal meeting spots and landmarks within the building




Ensure that residents can wander through the building in small, clear loops

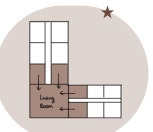


Create gentle turns in corridors to avoid sharp angles. Open views should be incorporated when necessary

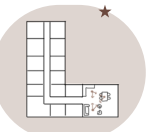
PRIVACY & SOCIAL SPACES



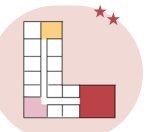
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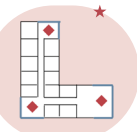
Position dwelling doors to open directly into shared living areas to avoid long corridors



Ensure direct visual contact with key spaces like the dining room, kitchen and living area

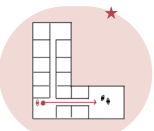


Include spaces with different characteristics to encourage social interaction

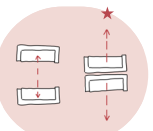


Create social spaces near windows


OUTDOOR ENVIRONMENT




Design sightlines to allow individuals to observe social spaces without physically being there



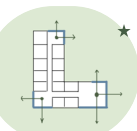
Use sociopetal and sociofugal layouts to promote privacy / social spaces



Use looped walking paths through the inner courtyard



Design inner gardens with unobtrusive barriers, like hedges, to reduce feelings of confinement



Provide communal areas with windows offering views of the garden from multiple directions

AUTONOMY



Design winter gardens or verandas for year-round outdoor experiences



Create small living units for 8-10 residents to enhance comfort and autonomy



Ensure residents can independently access safe (outdoor) spaces like gardens

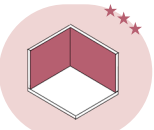


Ensure there are objects added in the hallways / living rooms that evoke familiarity and encourage reminiscence




Divide large communal areas into smaller, familiar zones like a zone for a kitchen or living room

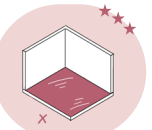
SENSORY ENGAGEMENT



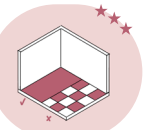
Ensure a contrast between walls and floors to define room boundaries



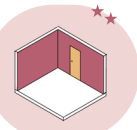
Prevent windows that go all the way down to the ground



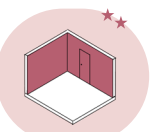
Avoid shiny materials for flooring, as they can create the illusion of wet surfaces



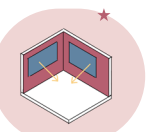
Avoid strong contrasts in flooring, like dark tiles on light floors



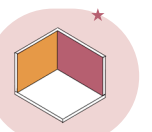
Highlight doors to accessible spaces with contrasting colors



Ensure doors to private spaces blend into the surrounding walls




Provide enough natural daylight to support a regular sleep-wake cycle




Use warm colors

Room scale

ORIENTATION & ACCESSIBILITY




Incorporate familiar items near the room entrance like a cabinet or artwork

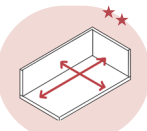


Design the entrance space with a recess to integrate personal items effectively

PRIVACY & SOCIAL SPACES

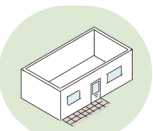


Design personal rooms with separate zones to create a home-like atmosphere




Create enough space in the room to accommodate family members and other visitors


OUTDOOR ENVIRONMENT




Include small terraces where residents can place chairs




Provide direct access to an inner courtyard from residents' room



Design enclosed balconies for residents on higher floors to enable private outdoor access



Ensure that rooms without direct outdoor access have views of greenery

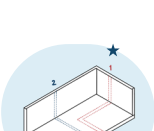


Design private bathrooms with sufficient storage space and a direct line of sight from the bedroom




Include a small kitchenette with basic amenities


AUTONOMY




Offer at least two room layouts, allowing residents to choose their preferred option



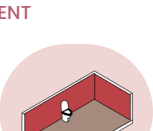
Design rooms that are at least 15m² to accommodate personal furnishings and activities



Provide a windowsill for displaying personal items




Ensure minimal contrast between floor materials of private rooms and corridors

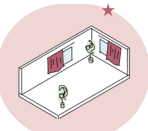


Use contrasting colors between the toilet and toilet seat. As well as between the toilet and the wall, and the wall and the floor

FAMILIARITY



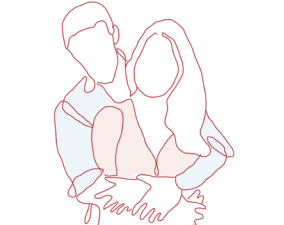
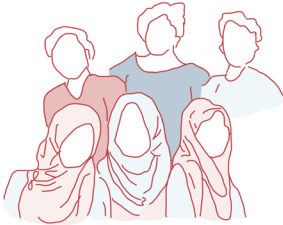
Provide good noise insulation to enhance comfort



Incorporate sound-absorbing materials like curtains, ceiling panels, and plants to reduce noise


SENSORY ENGAGEMENT

Different cultures Tarwewijk




Environmental scale


ORIENTATION & ACCESSIBILITY




Providing a sense of purpose or reward for using the walking paths by adding destinations



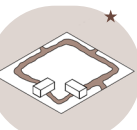
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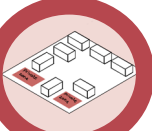


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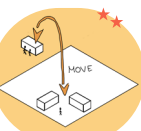


Provide safe color-coded routes throughout the neighborhood to offer clear guidance, helping residents navigate spaces independently

FAMILIARITY



Create paths that connect to familiar local areas, such as the village center, to help residents maintain routines and feel at home



Ensure the facility is located near a neighborhood so people with dementia don't have to move far, allowing them to remain in a familiar environment


SENSORY ENGAGEMENT




Ensure a varied environment with different sounds, textures and scents




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Provide soothing sounds in the environment, such as flowing water or birds



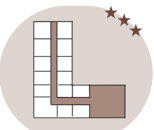
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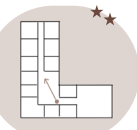
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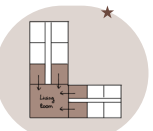


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PRIVACY & SOCIAL SPACES



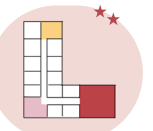
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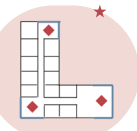
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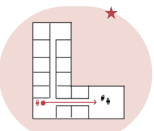


Include spaces with different characteristics to encourage social interaction

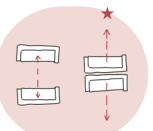


Create social spaces near windows


OUTDOOR ENVIRONMENT




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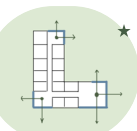
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Use looped walking paths through the inner courtyard




Design inner gardens with unobtrusive barriers, like hedges, to reduce feelings of confinement




Provide communal areas with windows offering views of the garden from multiple directions

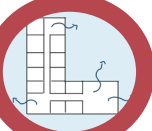
AUTONOMY



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FAMILIARITY

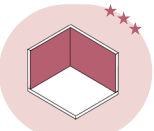


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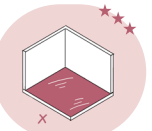
SENSORY ENGAGEMENT



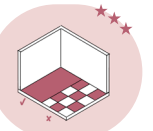
Ensure a contrast between walls and floors to define room boundaries



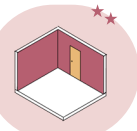
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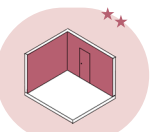
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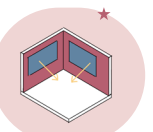
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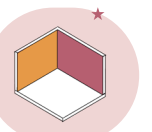
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Ensure doors to private spaces blend into the surrounding walls




Provide enough natural daylight to support a regular sleep-wake cycle




Use warm colors

Room scale

ORIENTATION & ACCESSIBILITY




Incorporate familiar items near the room entrance like a cabinet or artwork

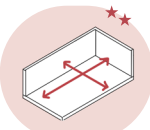


Design the entrance space with a recess to integrate personal items effectively

PRIVACY & SOCIAL SPACES



Design personal rooms with separate zones to create a home-like atmosphere




Create enough space in the room to accommodate family members and other visitors


OUTDOOR ENVIRONMENT




Include small terraces where residents can place chairs




Provide direct access to an inner courtyard from residents' room



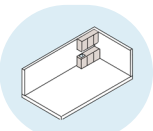
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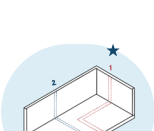


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AUTONOMY




Offer at least two room layouts, allowing residents to choose their preferred option



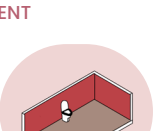
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Ensure minimal contrast between floor materials of private rooms and corridors

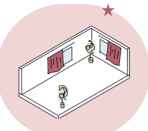


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FAMILIARITY



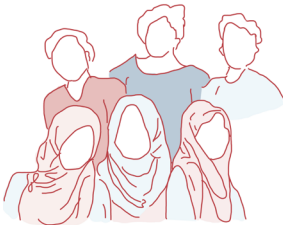
Provide good noise insulation to enhance comfort



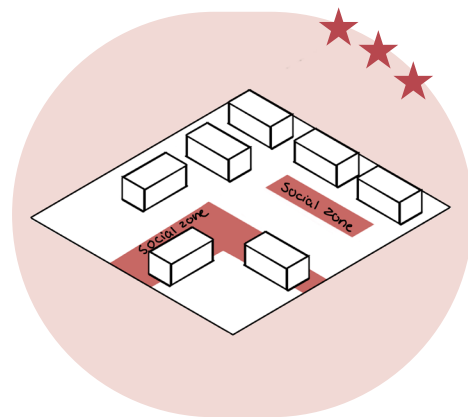
Incorporate sound-absorbing materials like curtains, ceiling panels, and plants to reduce noise

SENSORY ENGAGEMENT

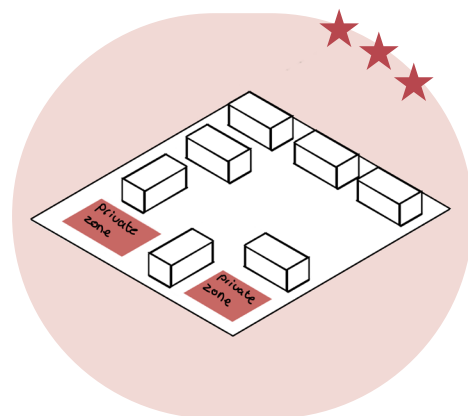
Different cultures Tarwewijk



Environmental scale

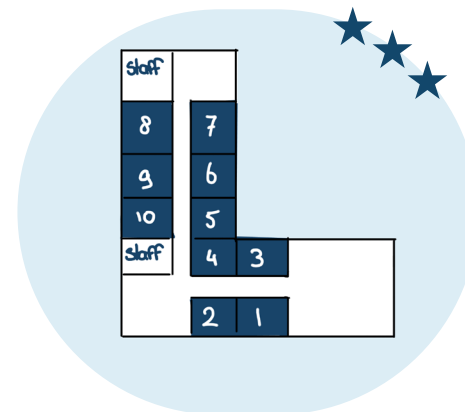


Create **social zones** in the environment to stimulate interaction and connection with the neighborhood

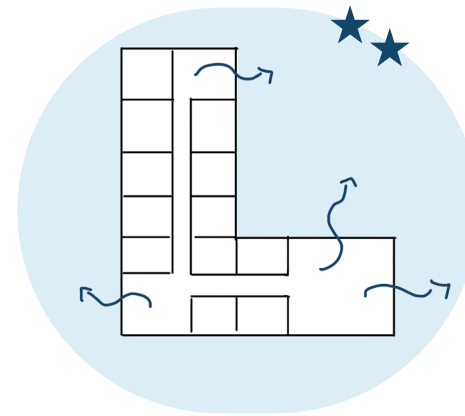


Create **small secluded areas** within the landscape where residents can enjoy some privacy

Building scale

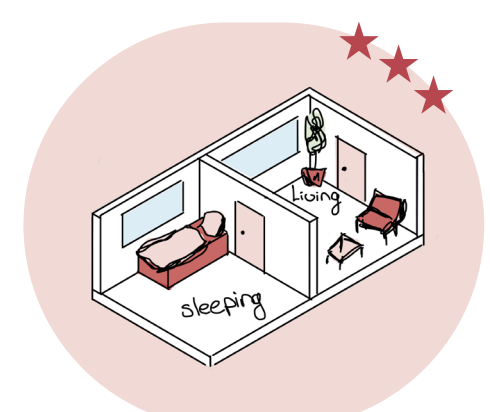


Create **small living units** to enhance comfort and autonomy

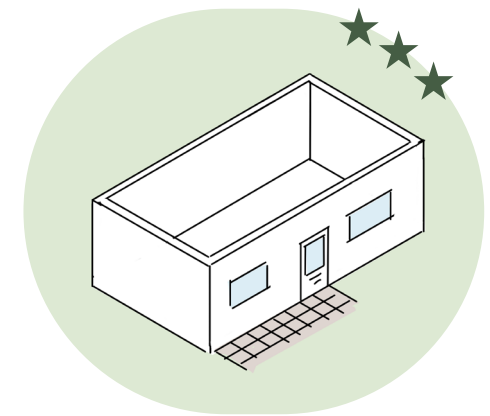


Ensure residents can **independently access safe (outdoor) spaces** like gardens

Room scale

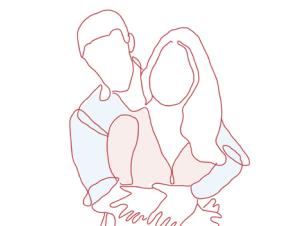
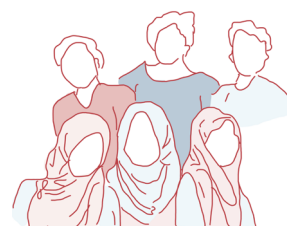
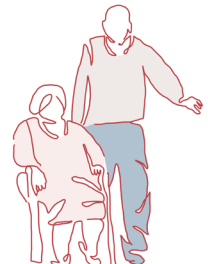


Design personal rooms with **separate zones** to create a home-like atmosphere



Include **small terraces** where residents can place chairs

Different cultures Tarwewijk

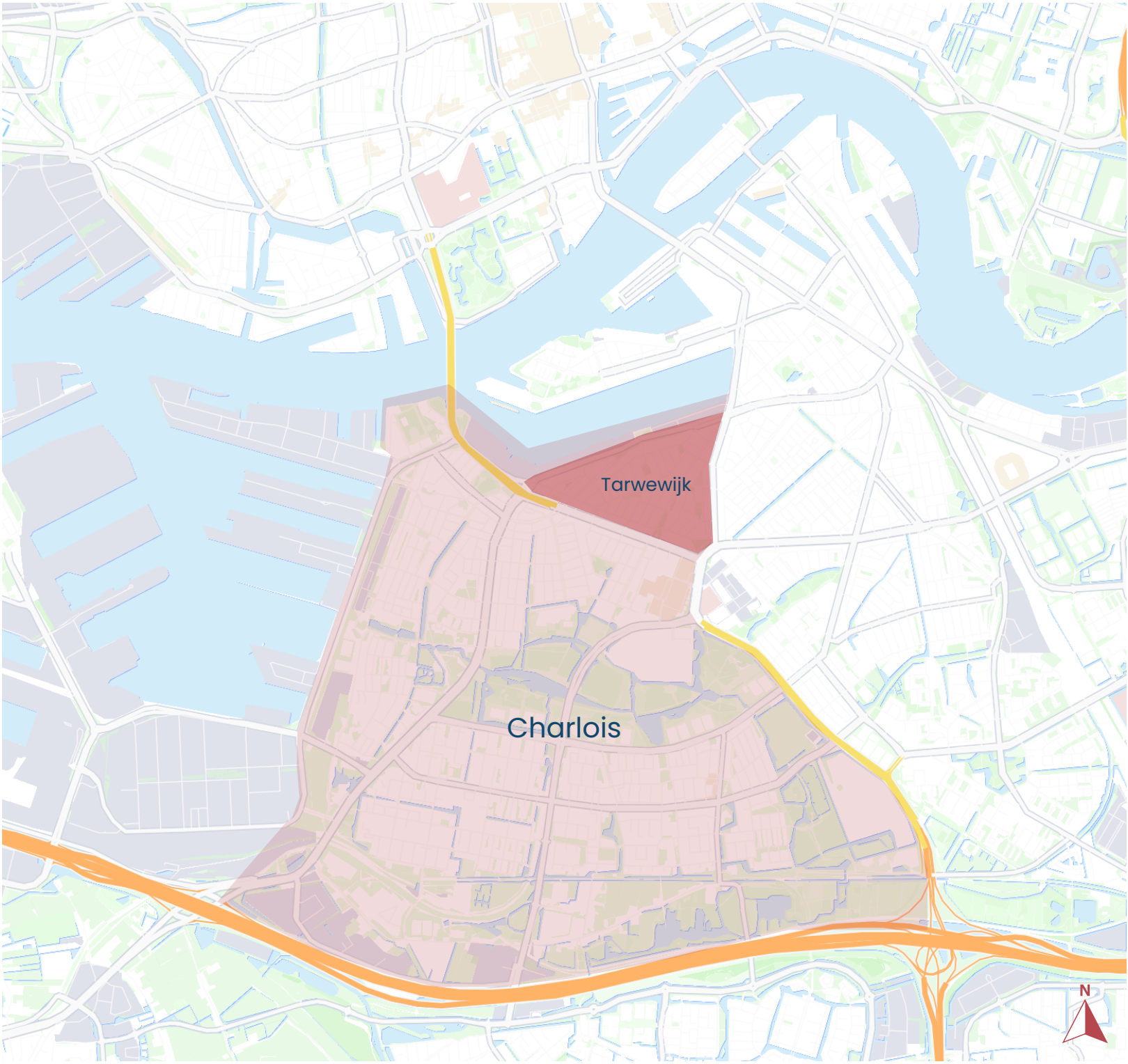




LOCATION

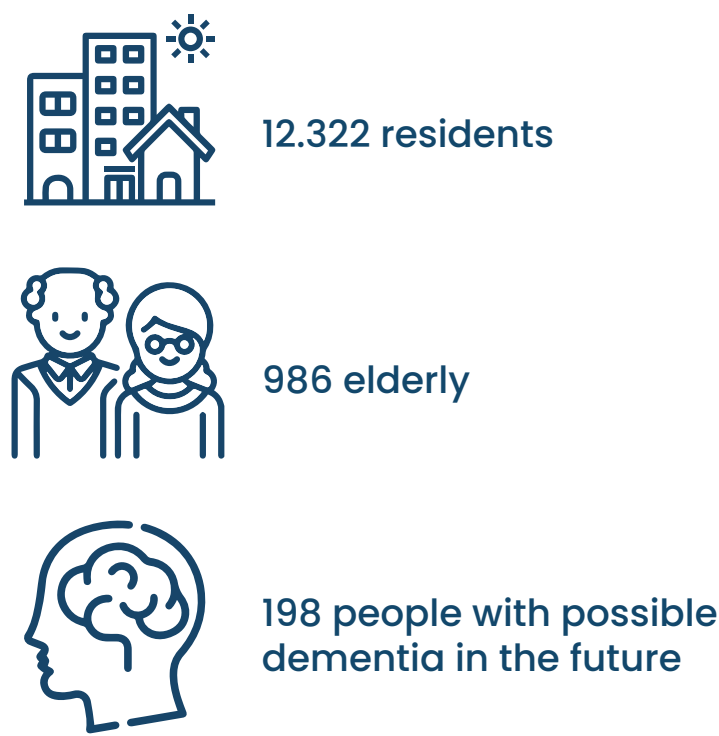


LOCATION

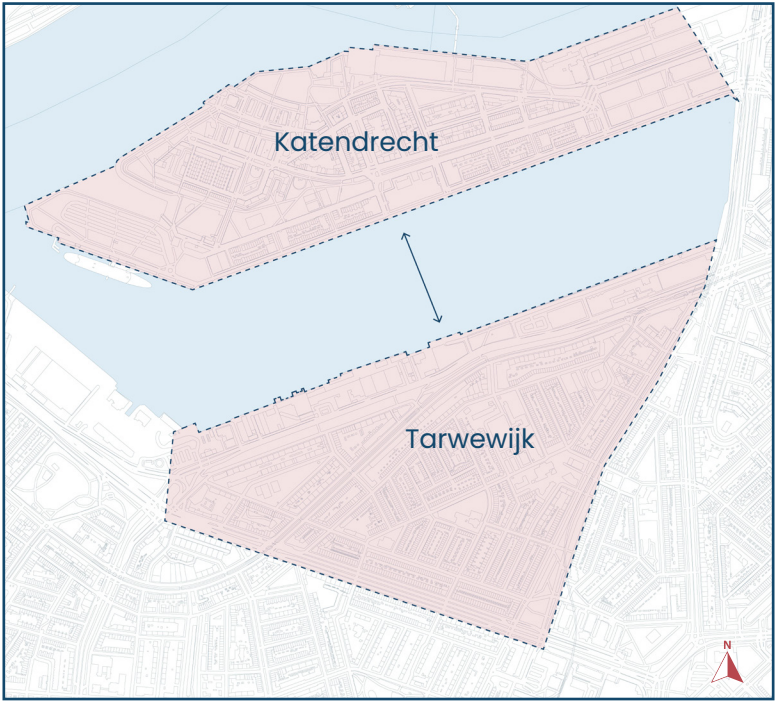


RELEVANCE

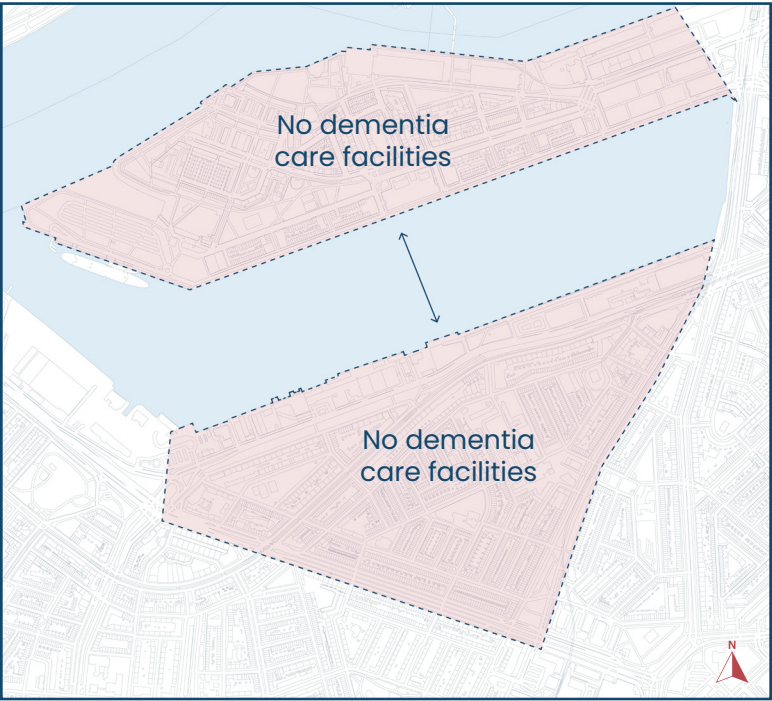
Amount of elderly Tarwewijk

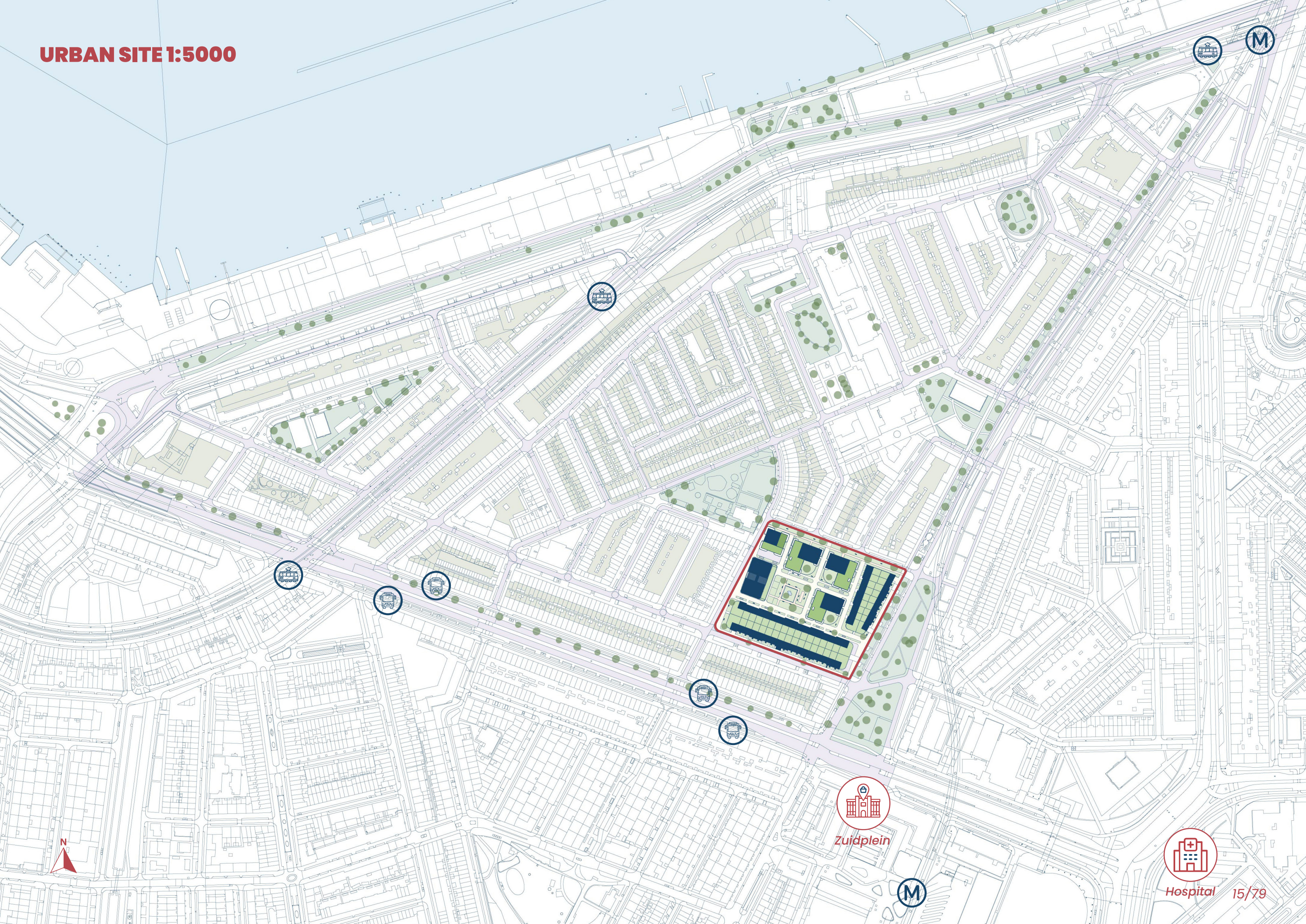


Future connection



No small scale dementia care facility





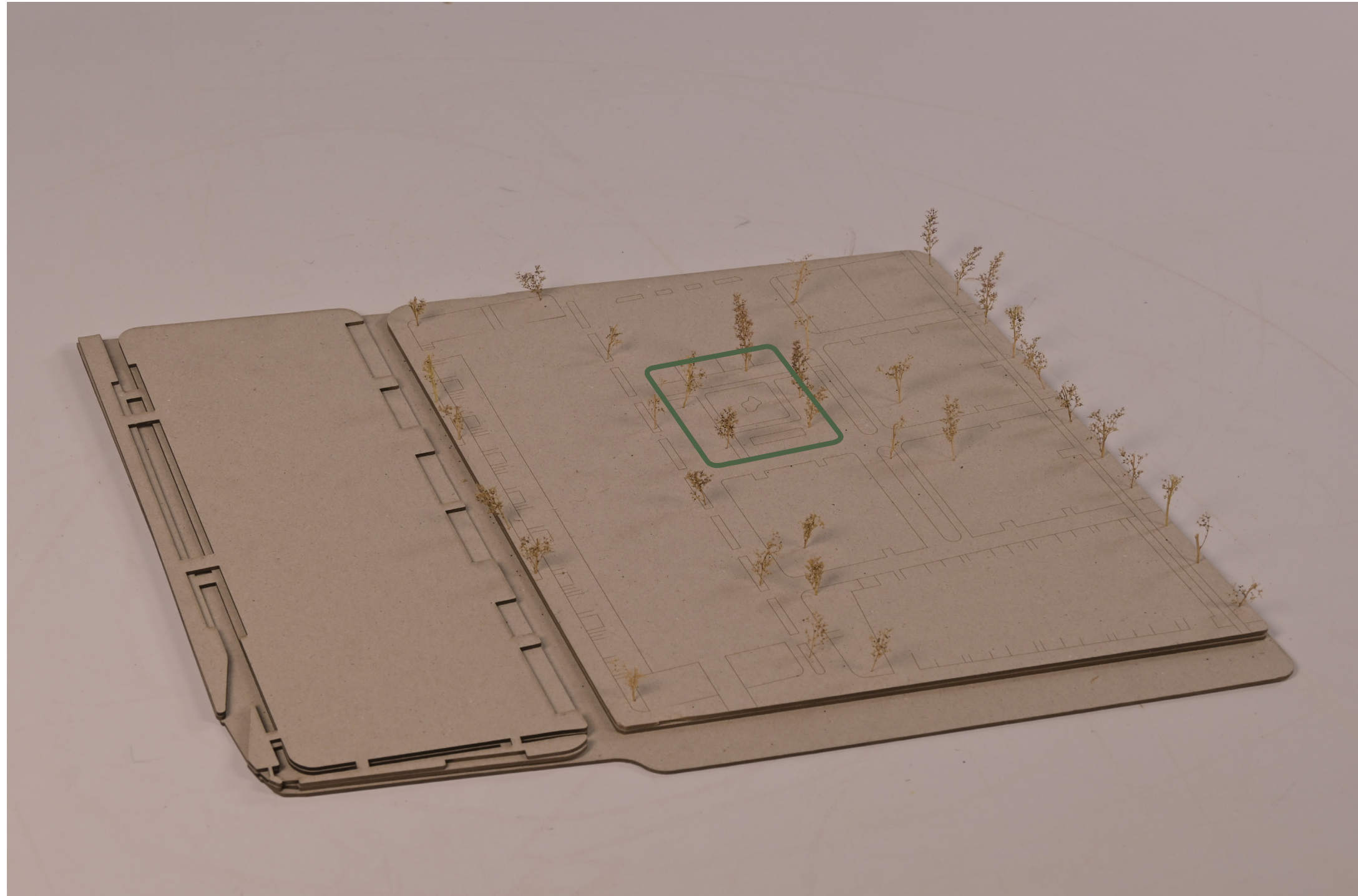
Zuidplein



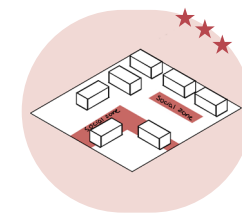
Hospital

SCHEMATIC URBAN PLAN

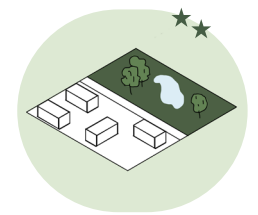
SCHEMATIC URBAN PLAN



1. Creating the main social zone

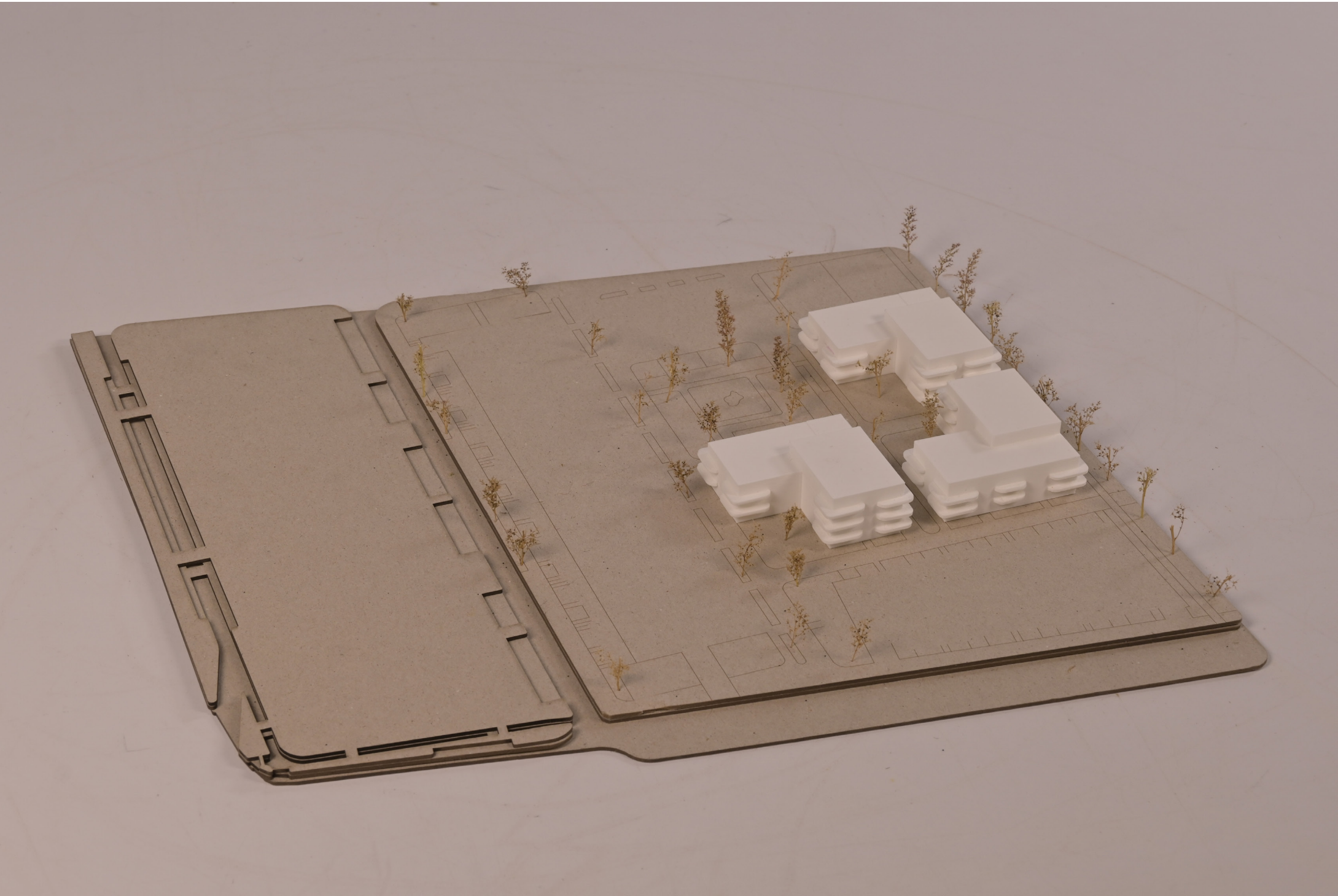


Create **social zones** in the environment to stimulate interaction and connection with the neighborhood

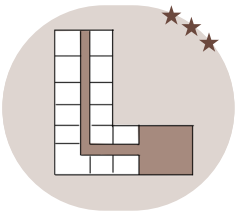


Provide enough **green and blue spaces**, as this is linked to a better quality of life

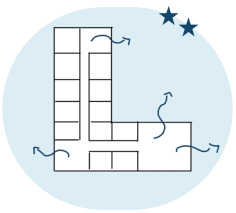
SCHEMATIC URBAN PLAN



2. Elderly with dementia at close proximity from the main social zone

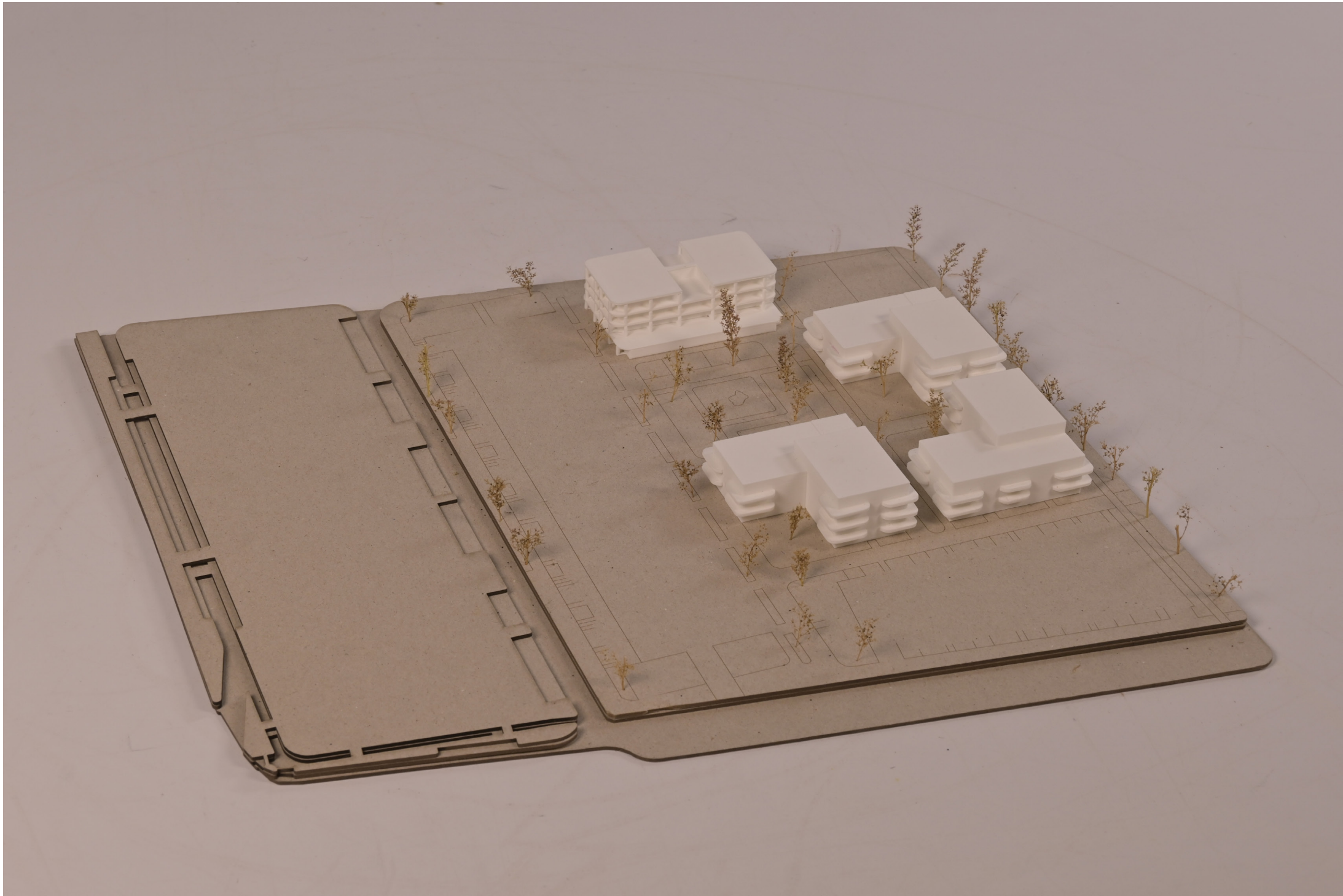


Design **simple floor plans**. Use straight, L or H shaped corridors for clear sightlines

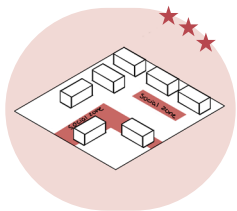


Ensure residents can **independently access safe (outdoor) spaces**

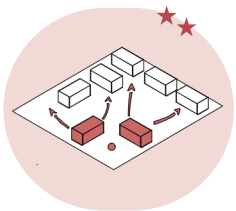
SCHEMATIC URBAN PLAN



3. Block with public ground floor to connect with the neighborhood

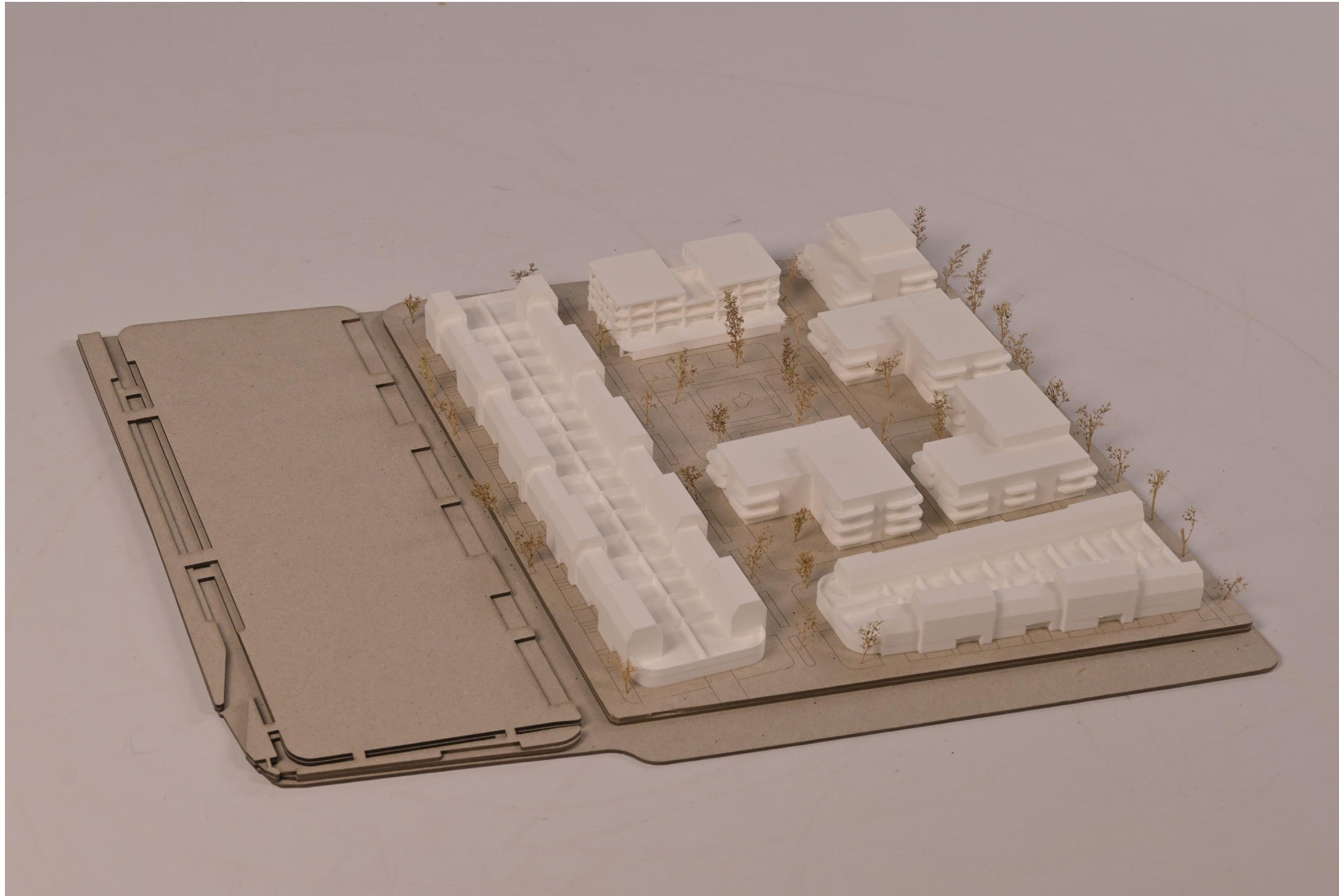


Create **social zones** in the environment to stimulate interaction and connection with the neighborhood

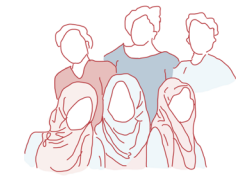


Position the care facility in a central or easily accessible neighborhood location to ensure **better integration of the facility into the surrounding community**

SCHEMATIC URBAN PLAN

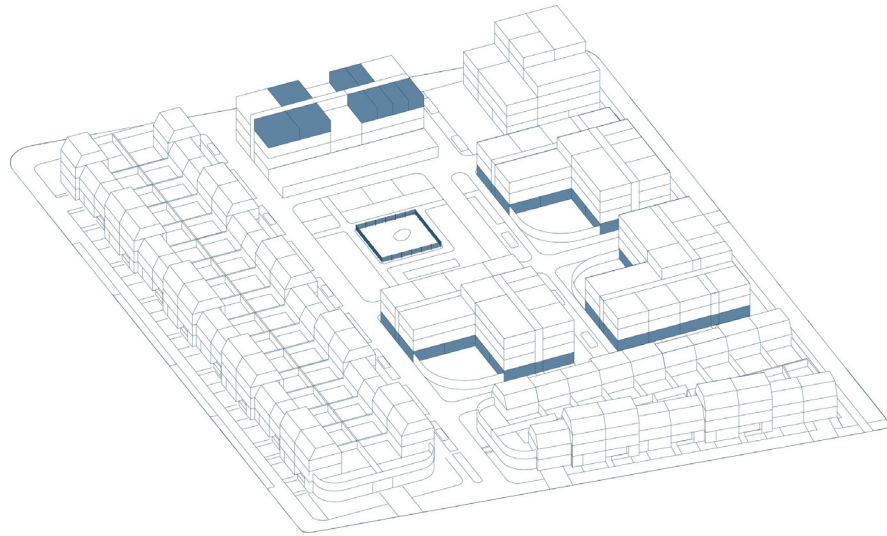


4. Intergenerational living housing along the busiest edges creates a safe inner space for the elderly with dementia

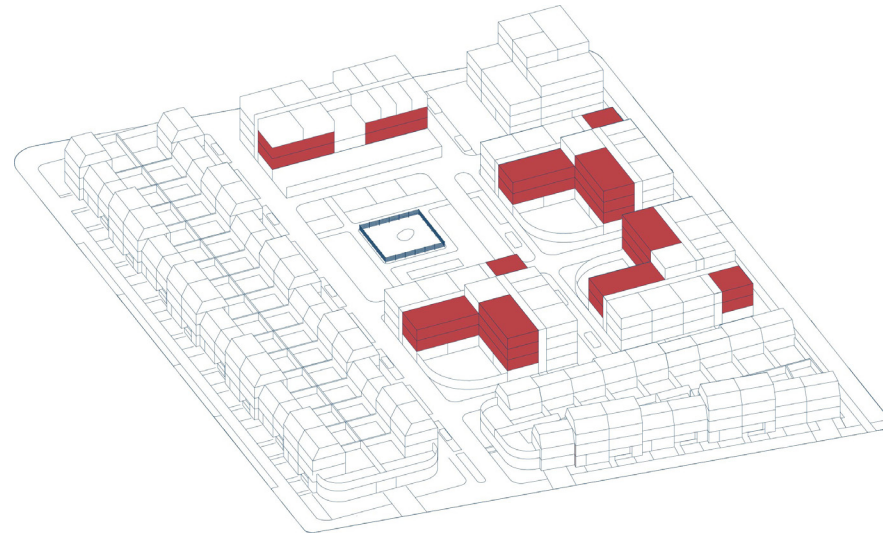


TYPES

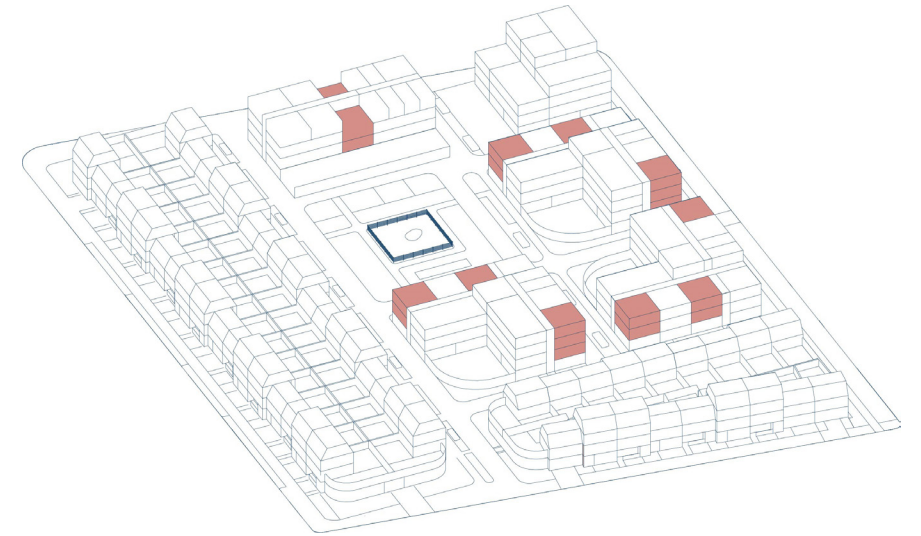
24-hour dementia care



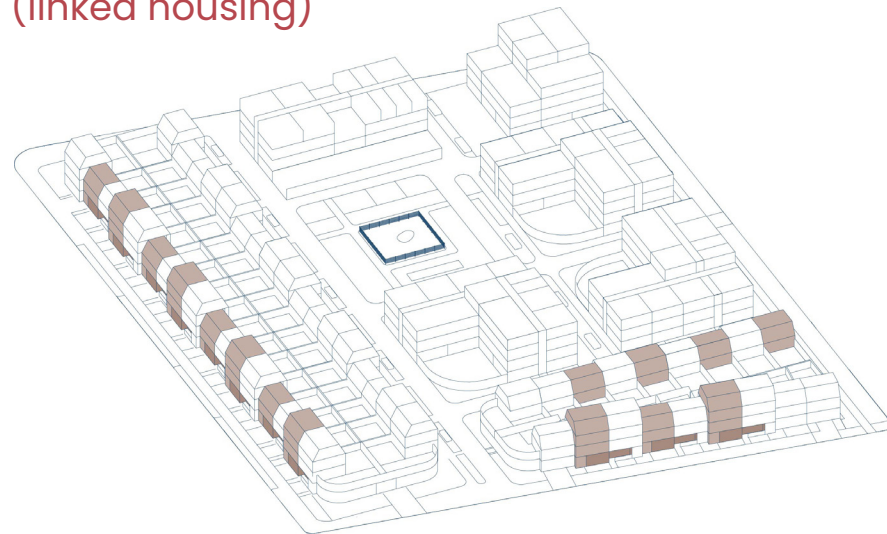
Assisted living apartments



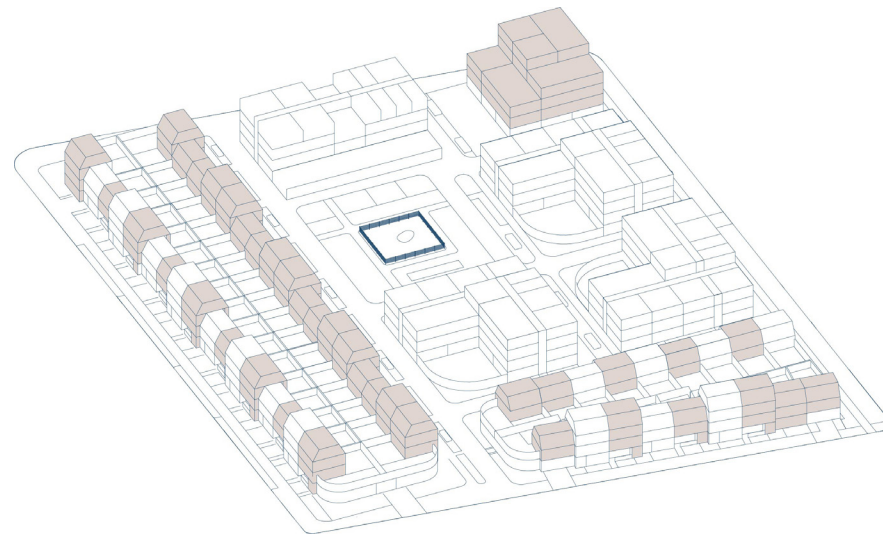
One bedroom apartments



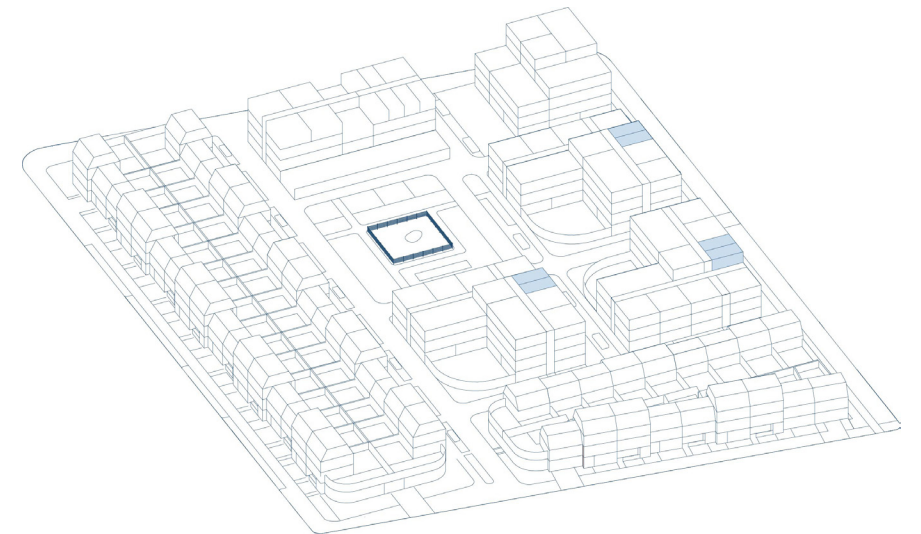
Intergenerational housing
(linked housing)



Regular apartments

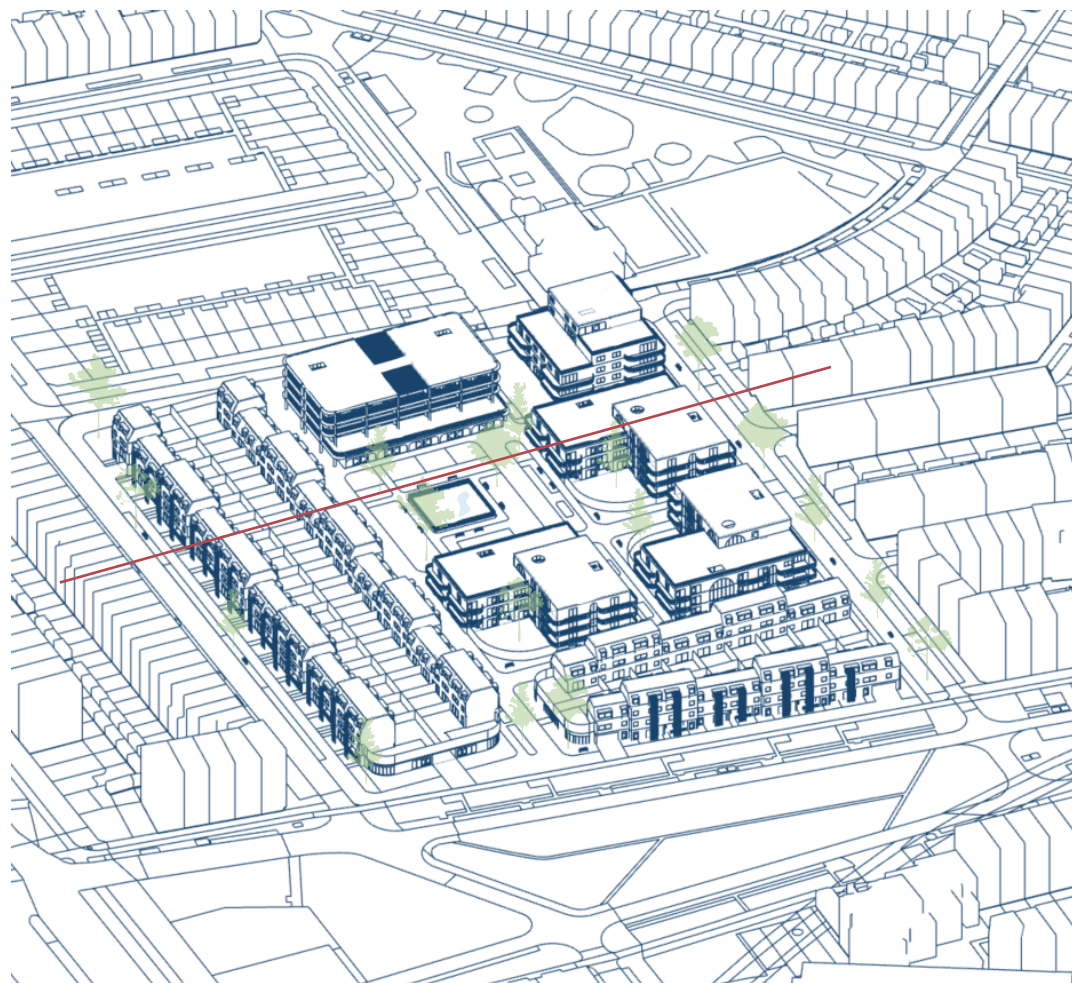


Guest rooms (family visiting rooms)





PLAN SECTION
1:500

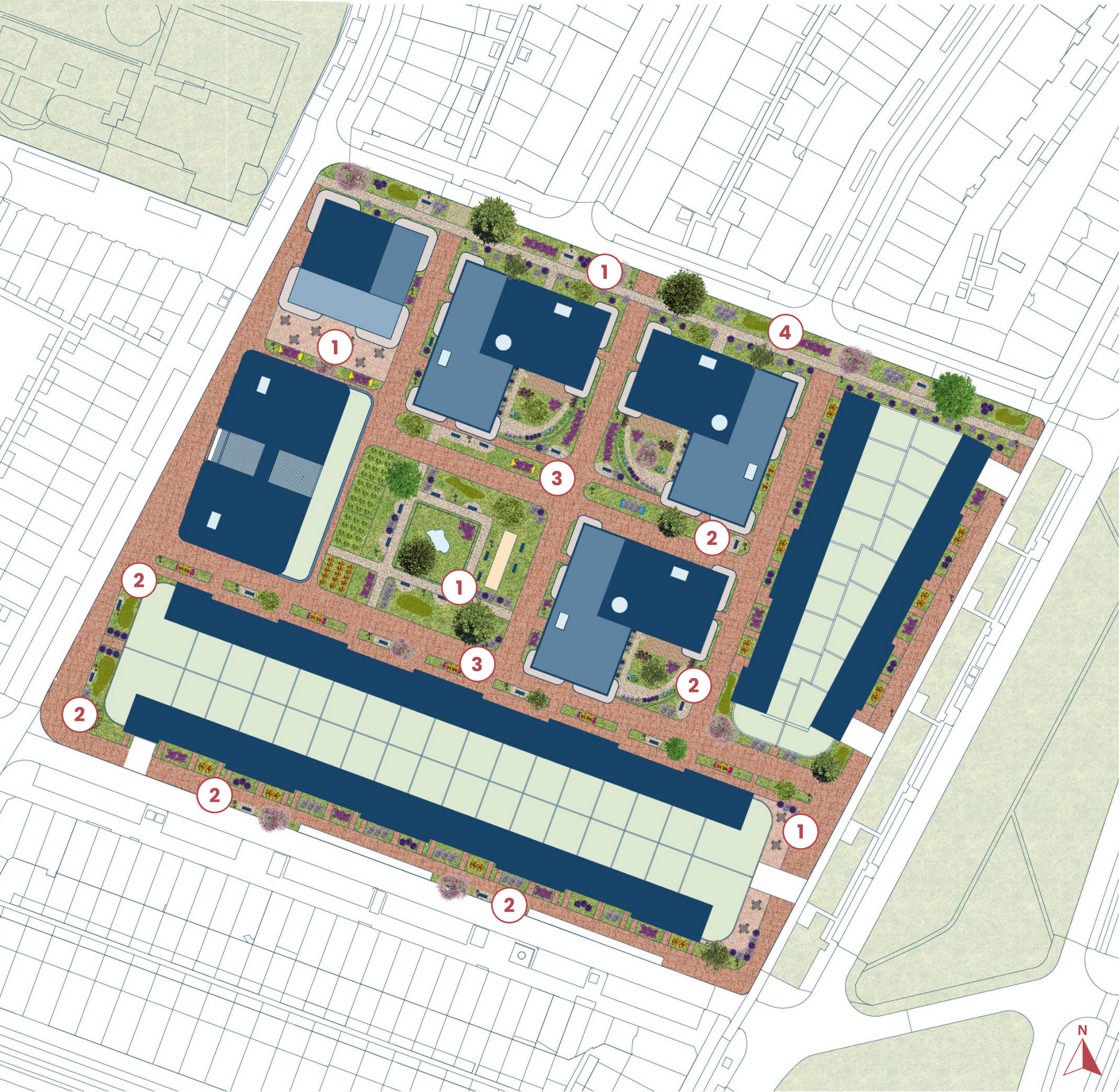


AXONOMETRY

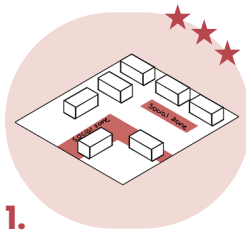


3D VIEW PARK

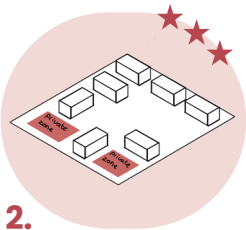
PROJECT PLAN 1:1000



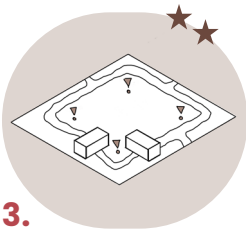
IMPLEMENTED GUIDELINES ENVIRONMENTAL SCALE



1. Create **social zones** in the environment to stimulate interaction and connection with the neighborhood



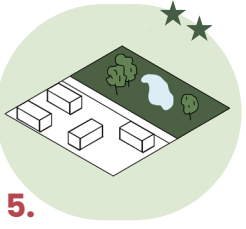
2. Create small **secluded areas** within the landscape where residents can enjoy some privacy



3. Incorporate **landmarks** for easy navigation



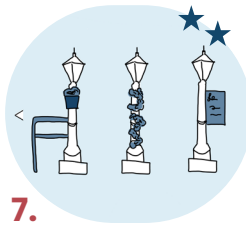
4. **Connect green spaces** in urban areas



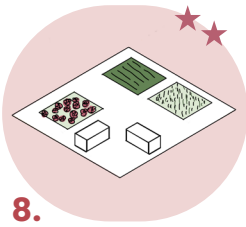
5. Provide **enough green and blue spaces**



6. Place **resting benches** at regular intervals



7. **Varying** lampposts, benches, and **street furniture** can act as landmarks

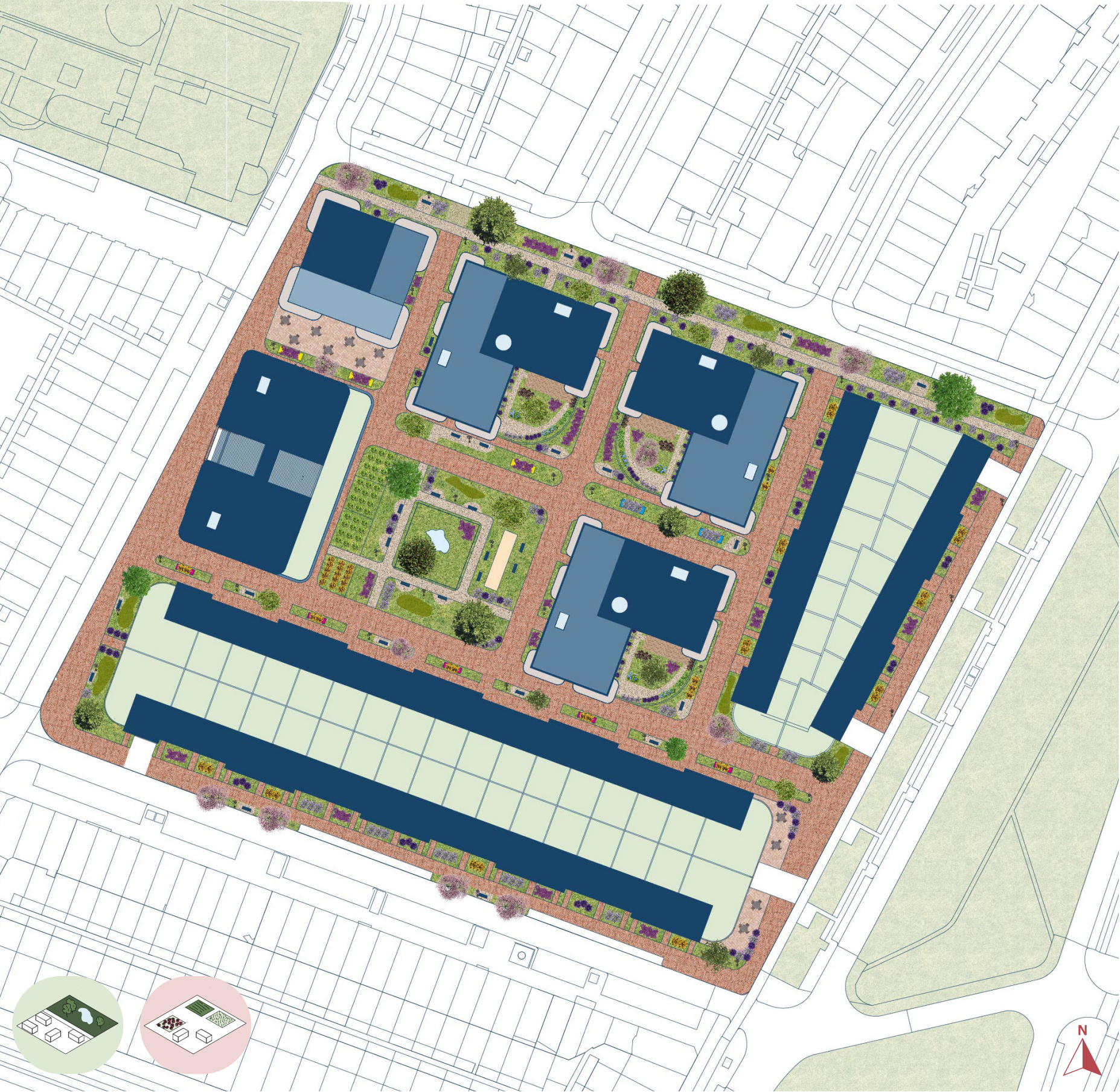


8. Ensure a **varied environment** with different sounds, textures and scents

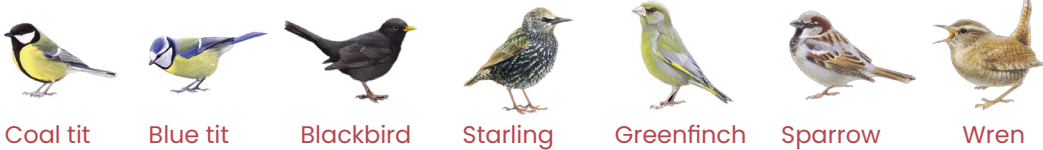
PROJECT PLAN 1:1000



PROJECT PLAN 1:1000



Birds in Tarwewijk


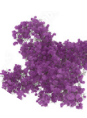





(Vogelbescherming, n.d.)

LEGEND
Trees

-  = Lime tree
 - Tit birds
 - Blackbirds
 - Wren birds
-  = Beech tree
 - Tit birds
 - Blackbirds
-  = Apple tree
 - Blackbirds
 - Greenfinch bird
 - Tit birds
 - Wren birds
-  = Pear tree
 - Blackbirds
 - Tit birds
 - Starling
 - Greenfinch bird
-  = Cherry tree
 - Blackbirds
 - Tit birds
 - Starling
-  = Maple
 - Greenfinch bird
 - Tit birds

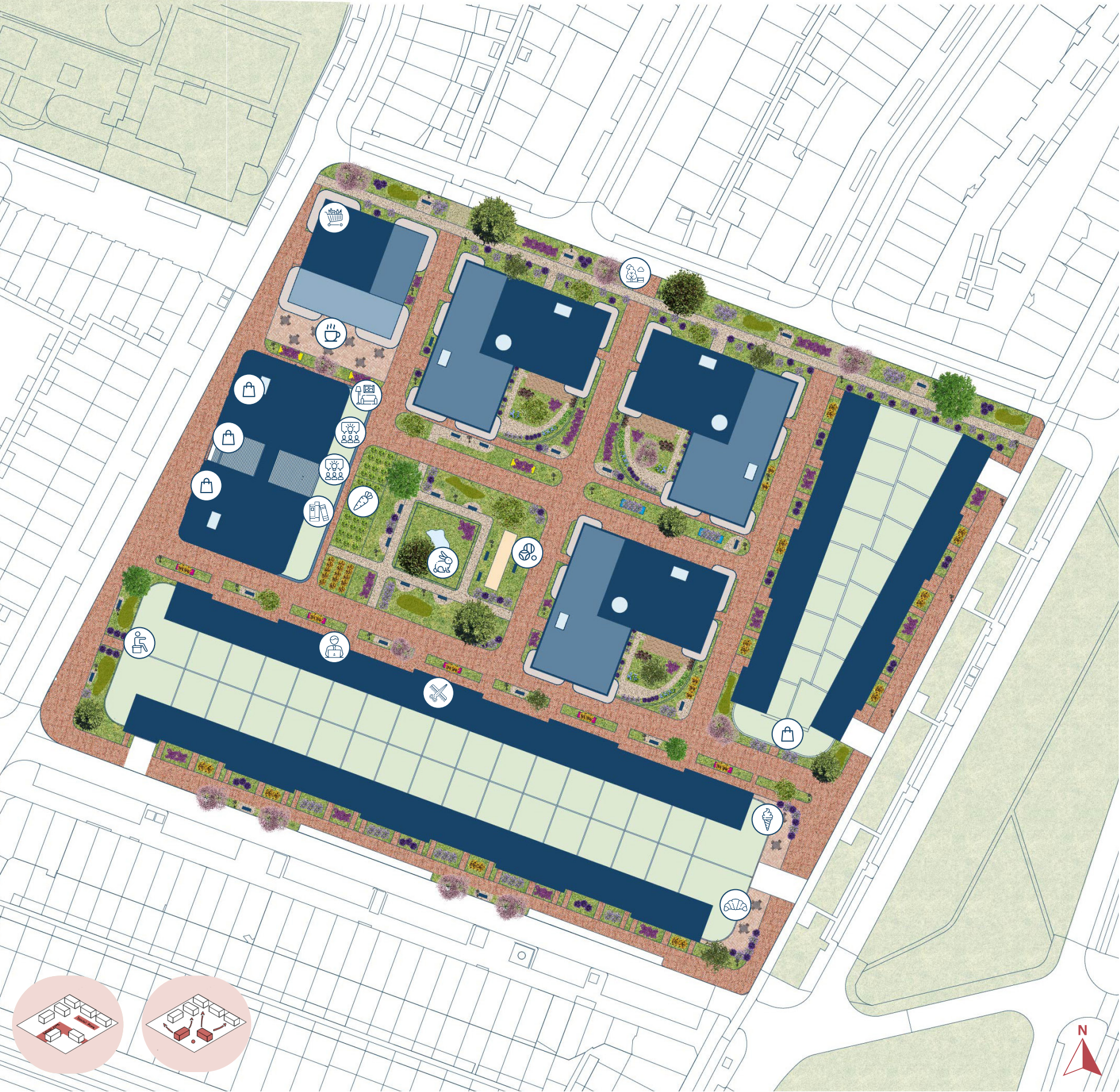
Plants

-  = Sunflower
 - Tit birds
 - Greenfinch bird
 - Starling
 - Sparrows
 - Squirrels
 - Bees
-  = Loosestrife
 - Greenfinch bird
 - Tit birds
 - Butterflies
 - Bees
-  = Violets
 - Tit birds
 - Butterflies
 - Bees
 - Bumblebees
-  = Lavender
 - Butterflies
 - Bees
 - Bumblebees
-  = Herb garden
 - Mint
 - Thyme
 - Carrots
 - Strawberries
















Water management

-  = Wadi's

PROJECT PLAN 1:1000

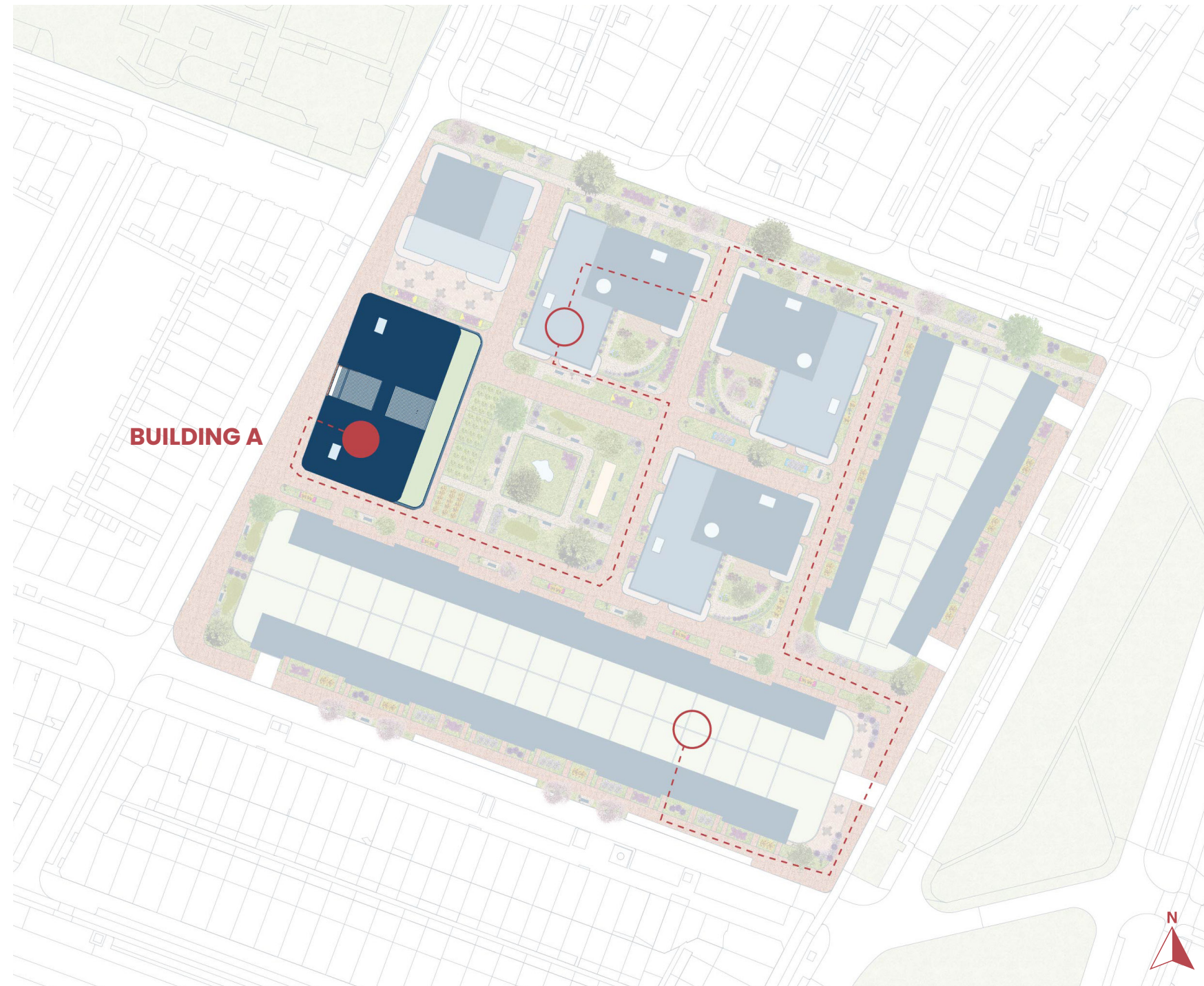
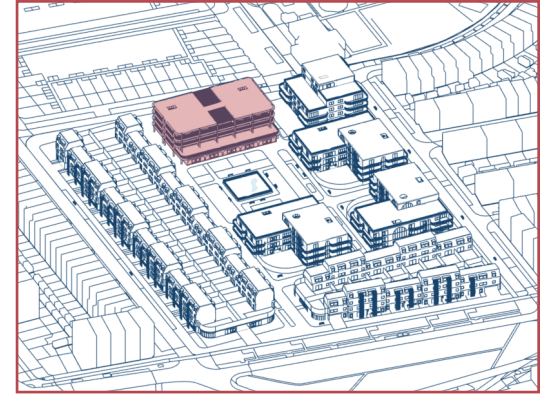


Legend ground floor functions:

-  = Library
-  = Workshop rooms
-  = Collective living room
-  = Physiotherapy
-  = Joules de boules
-  = Connecting park
-  = Café
-  = Shops
-  = Supermarket
-  = Hairdresser
-  = Petting zoo
-  = Ice cream shop
-  = Bakery
-  = Vegetable garden
-  = Office

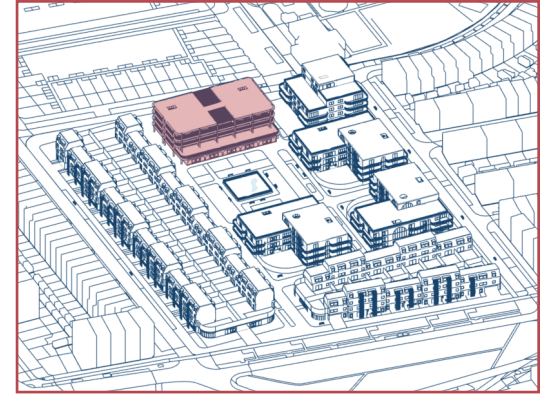
LETS TAKE A WALK...

BUILDING A



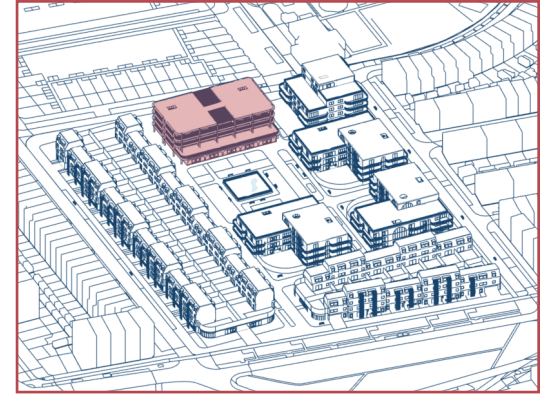
LET'S TAKE A WALK...

BUILDING A

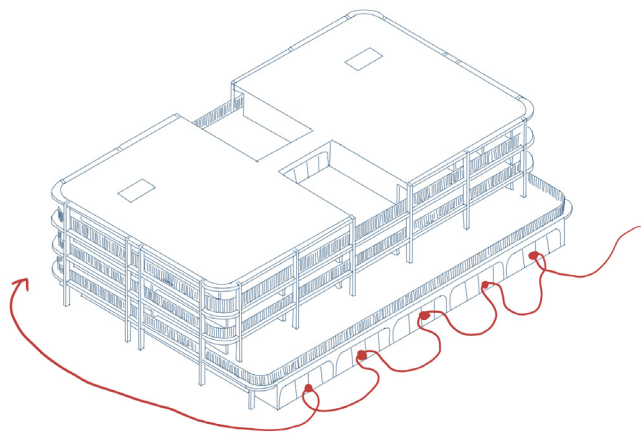


LET'S TAKE A WALK...

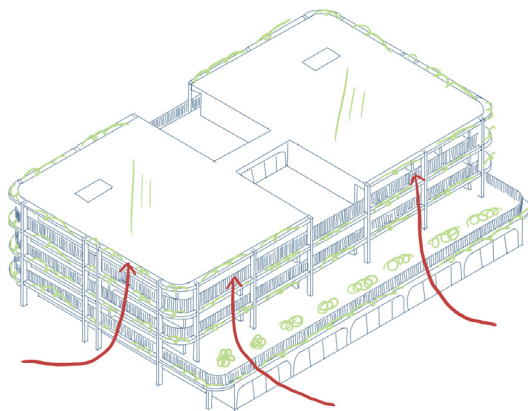
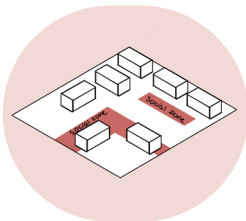
BUILDING A



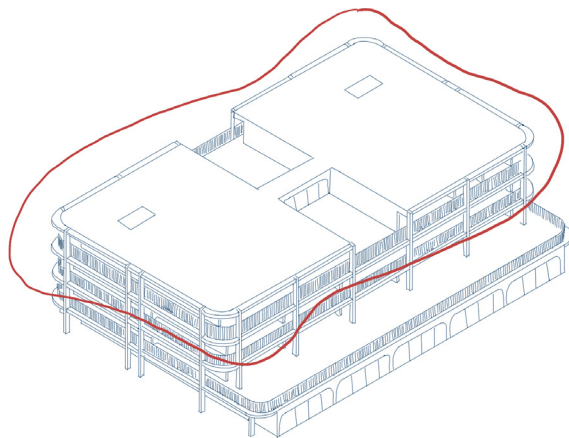
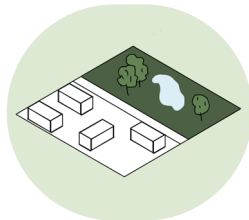
IMPORTANT DESIGN FEATURES



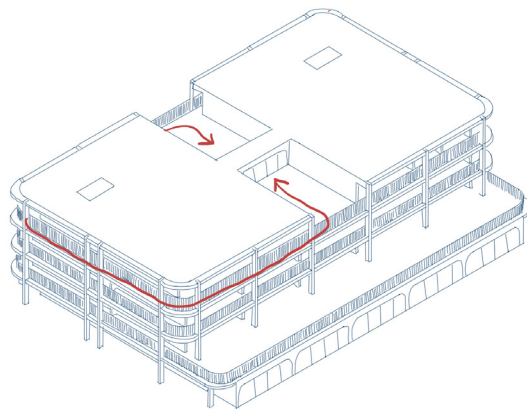
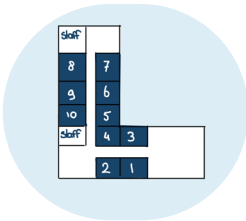
Ground floor social spaces



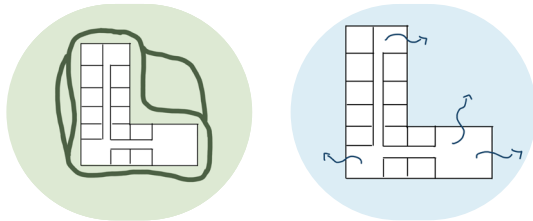
Adding to biodiversity



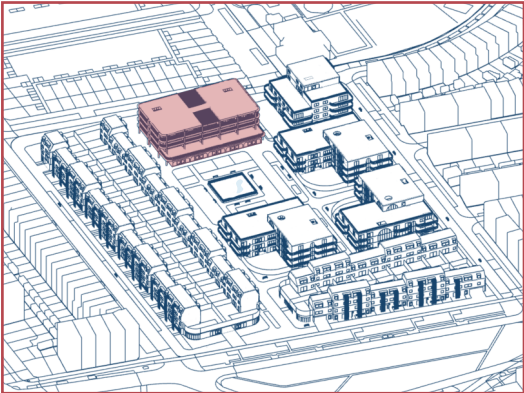
Small care facility severe dementia upper floor



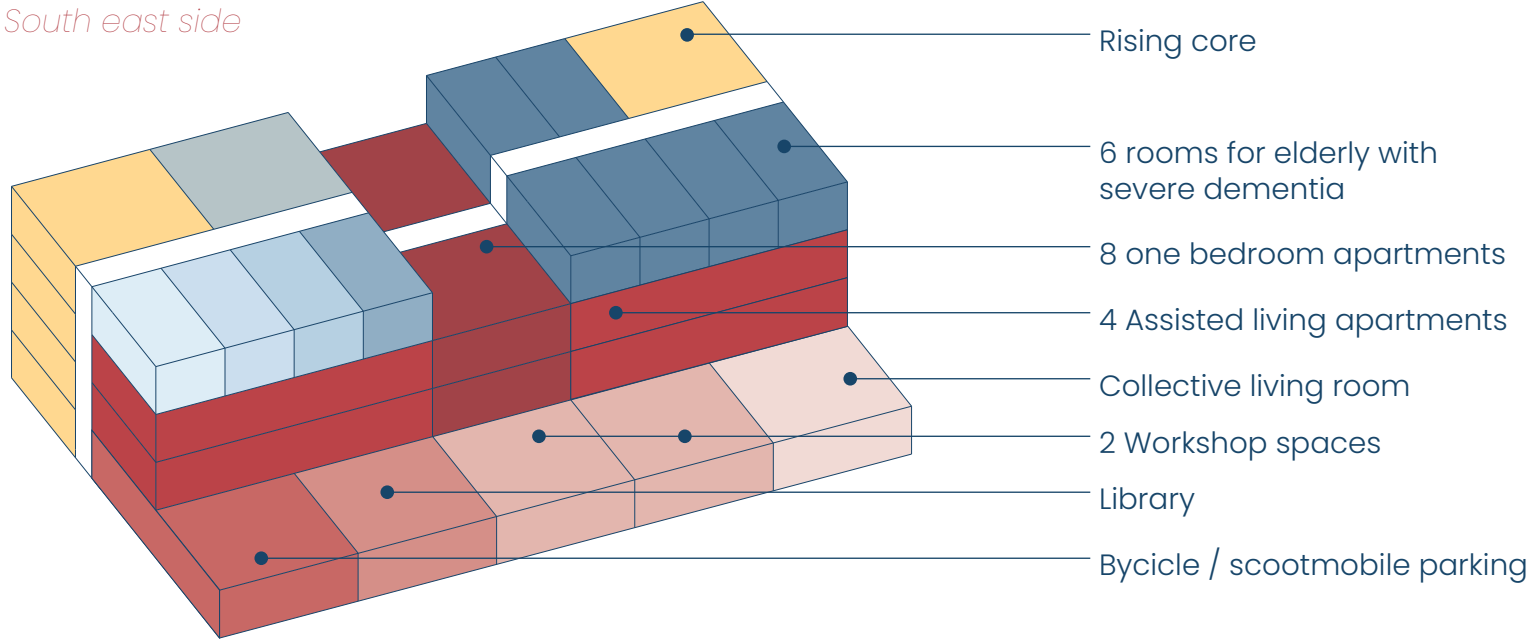
People able to walk around / access the garden



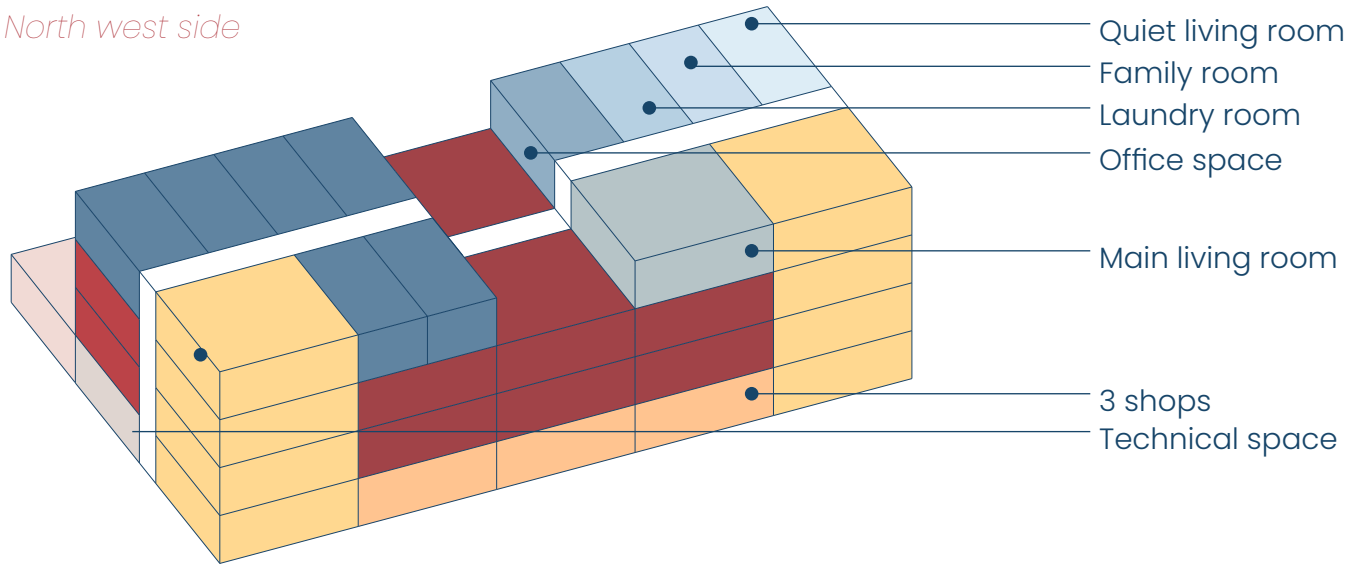
FUNCTIONS



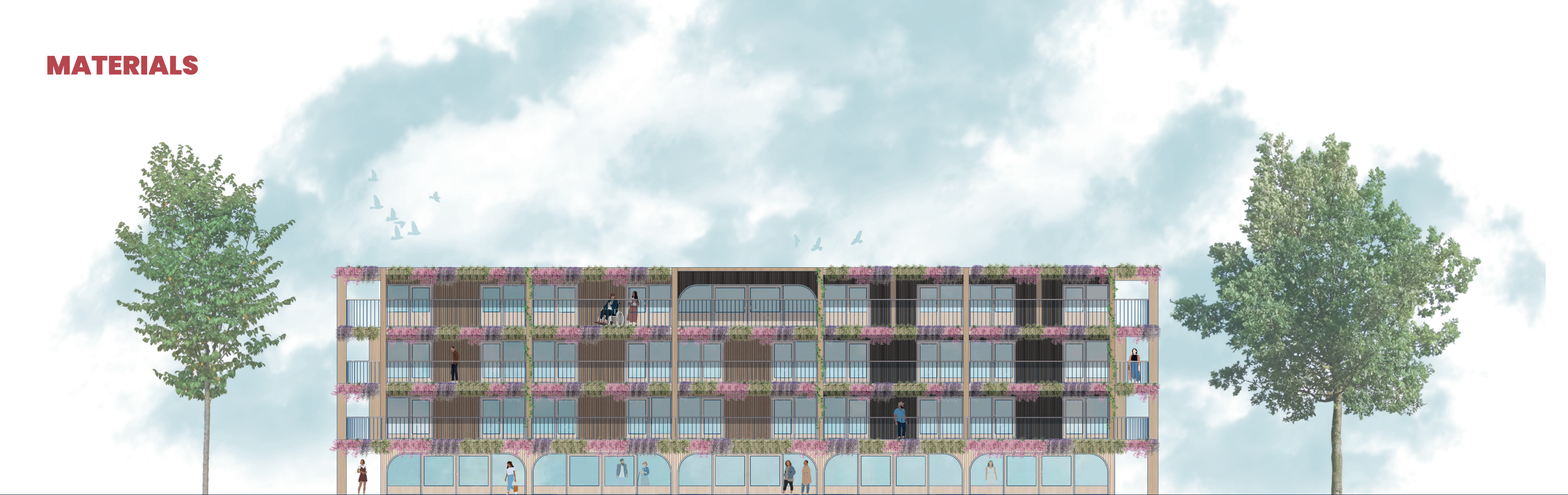
South east side



North west side

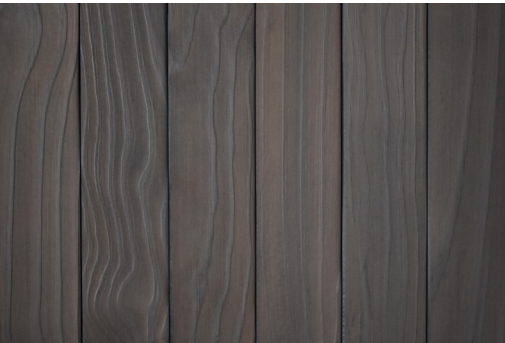


MATERIALS

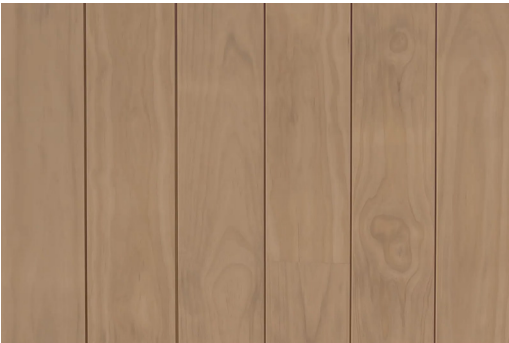


East facade
1:200

3 Shades of Accoya wood cladding



(Accoya, n.d.)



(Accoya, n.d.)



(Architextures, n.d.)

- CO2 neutral
- 100% recyclable
- Calm & warming atmosphere

Green roof




(SpiritEnergy, n.d.)

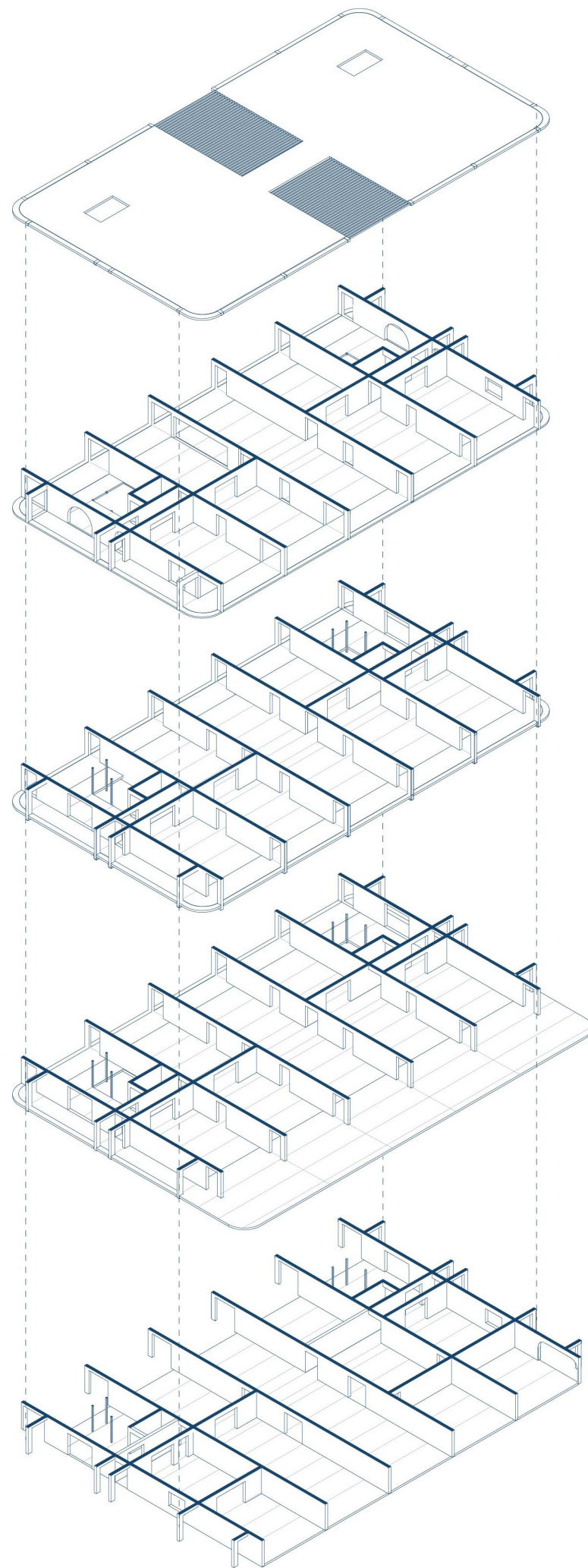
Safe plants in planters

 = Violets
- Tit birds
- Butterflies
- Bees
- Bumblebees
oct - may
may - oct

 = Lavender
- Tit birds
- Bees
- Bumblebees
jun - aug

 = Bellflower
- Tit birds
- Sparrows
- Butterflies
- Bees
Jun - sep

 = Spider plant
Mar - aug
Evergreen

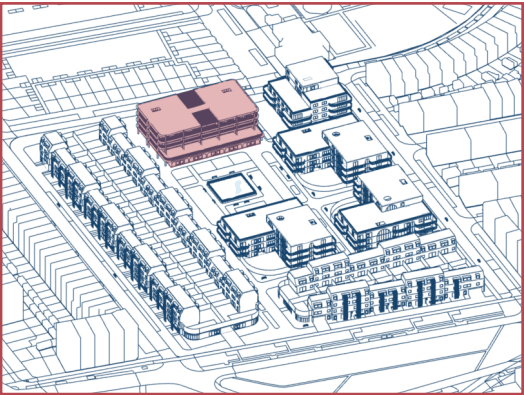


LOAD BEARING WALLS
CLT



(Novatop, n.d.)

- Stores CO2
- Low environmental impact



NON LOAD BEARING WALLS
Timber frame construction



(Wandshop, n.d.)

- Carbon negative
- Biodegradable

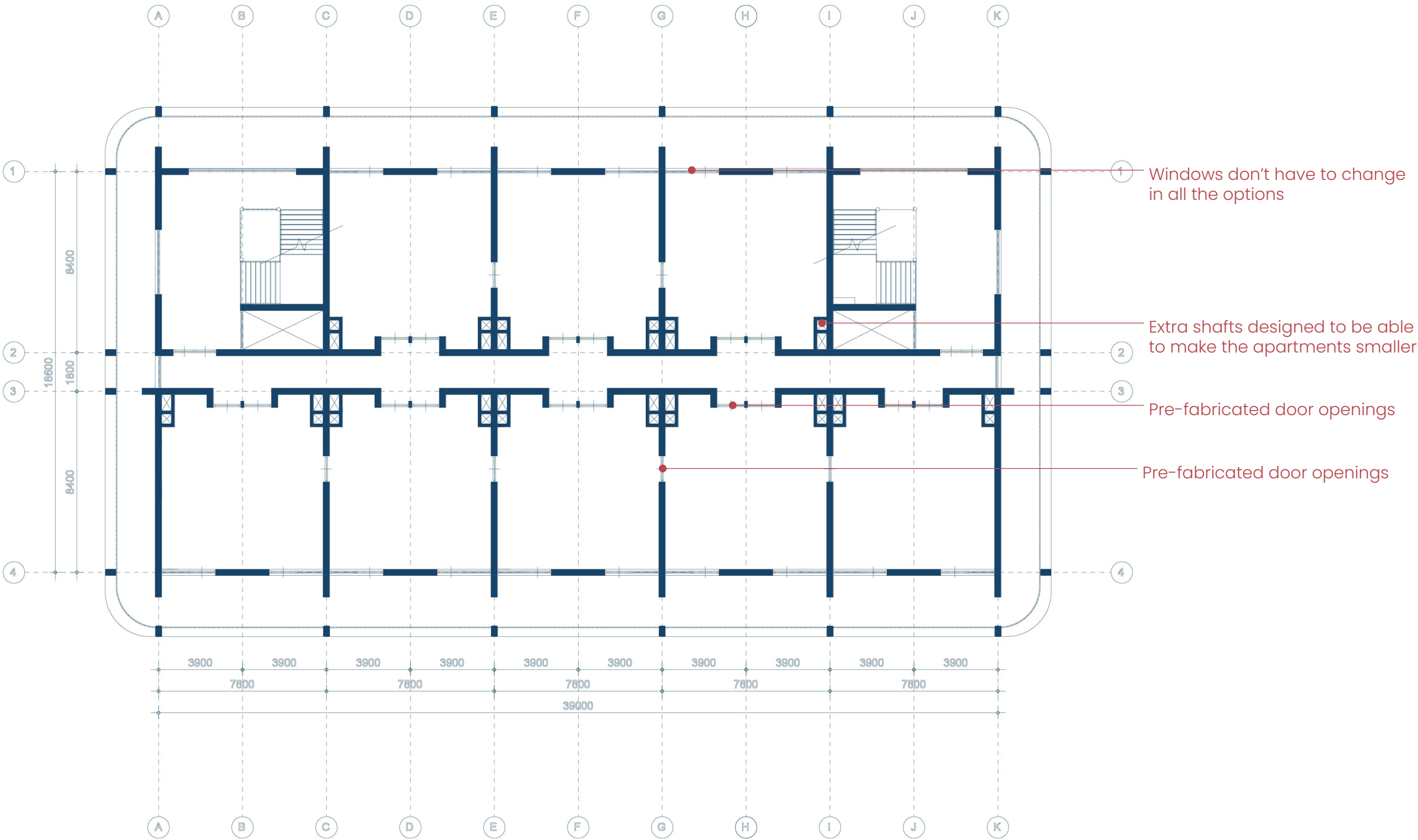
FLOORS
Kerto Ripa



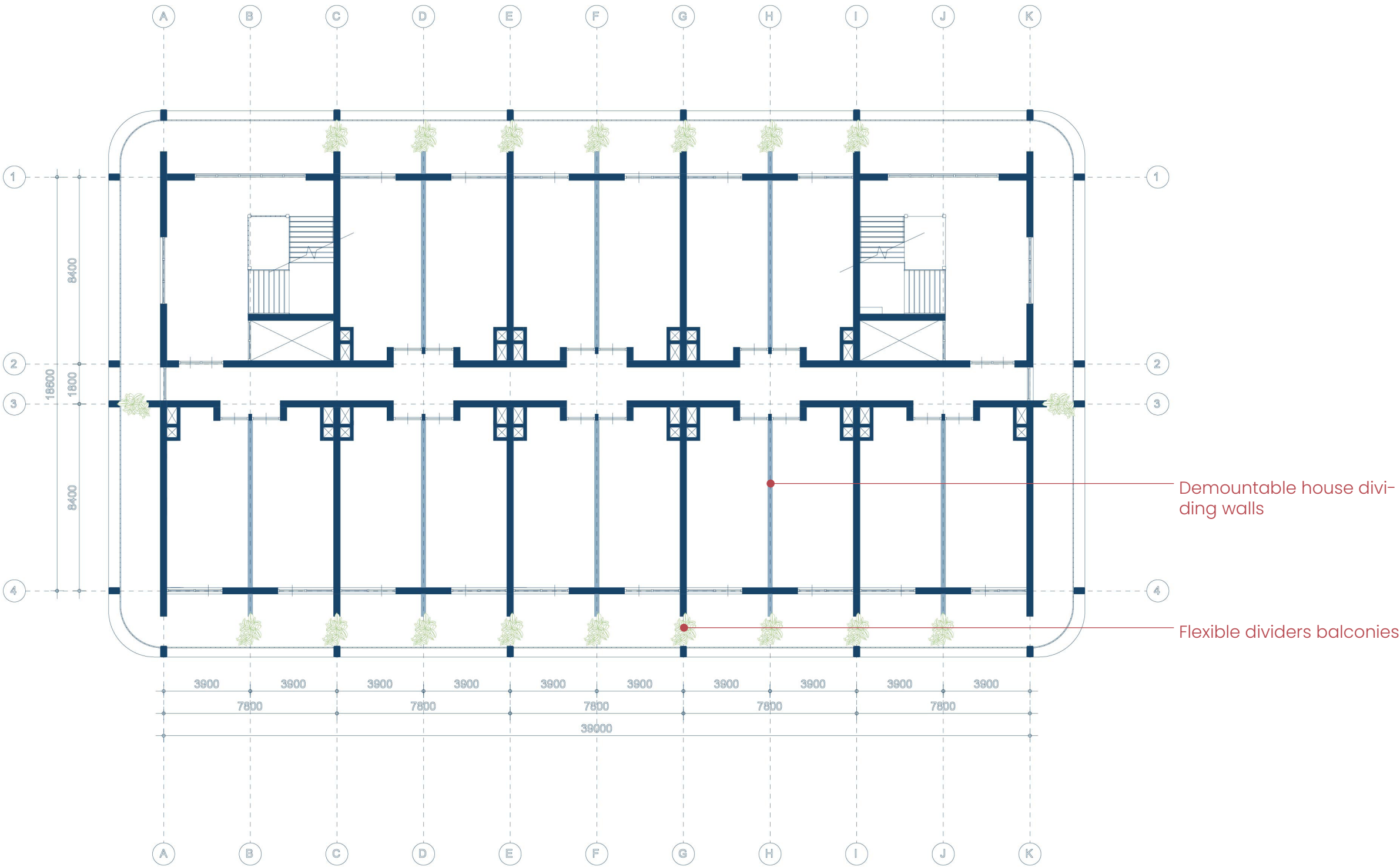
(Woodteq, n.d.)

- Wooden hollow floor
- Place for insulation / installations

FLEXIBILITY GRID 1:200
Second floor



FLEXIBILITY GRID 1:200
Second floor



DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



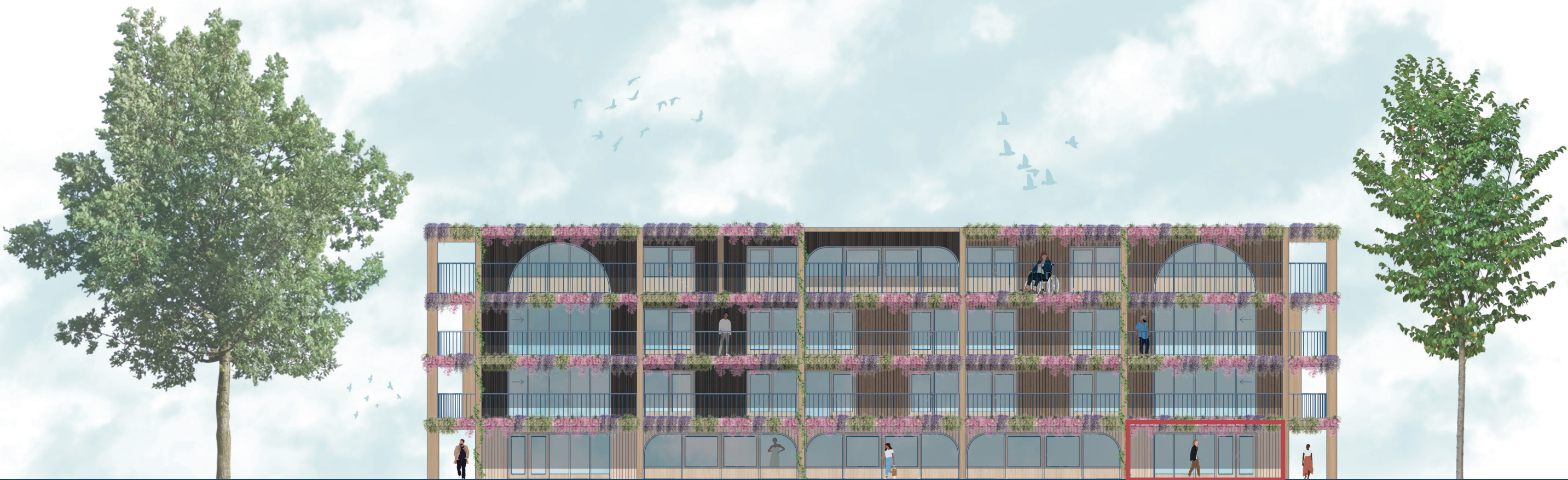
PLEASE STAND UP AND TAKE A LOOK...

DWELLING SCENARIOS



PLEASE STAND UP AND TAKE A LOOK...

WEST FACADE
1:200



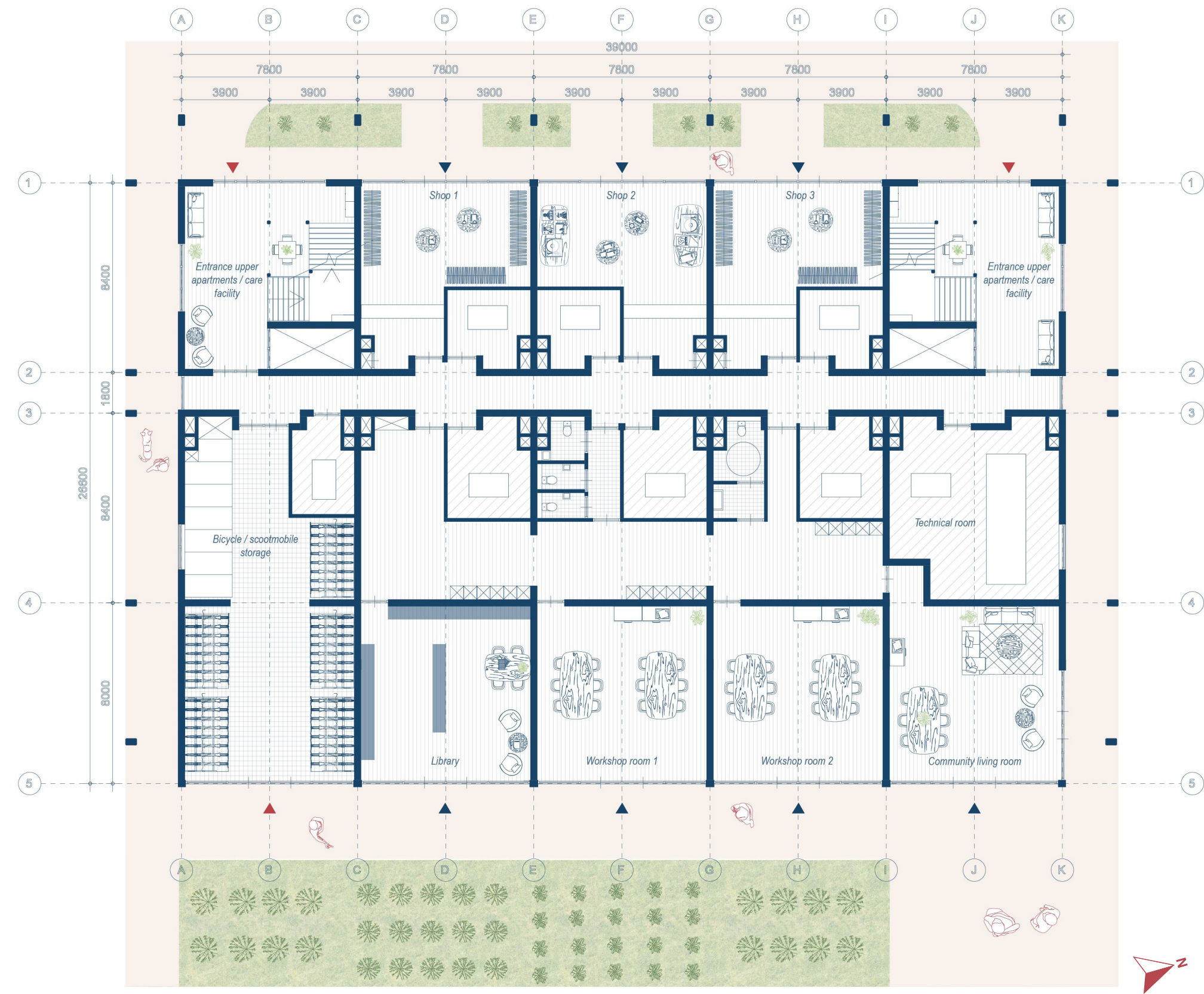
ENTRANCE SPACE





RISING CORE



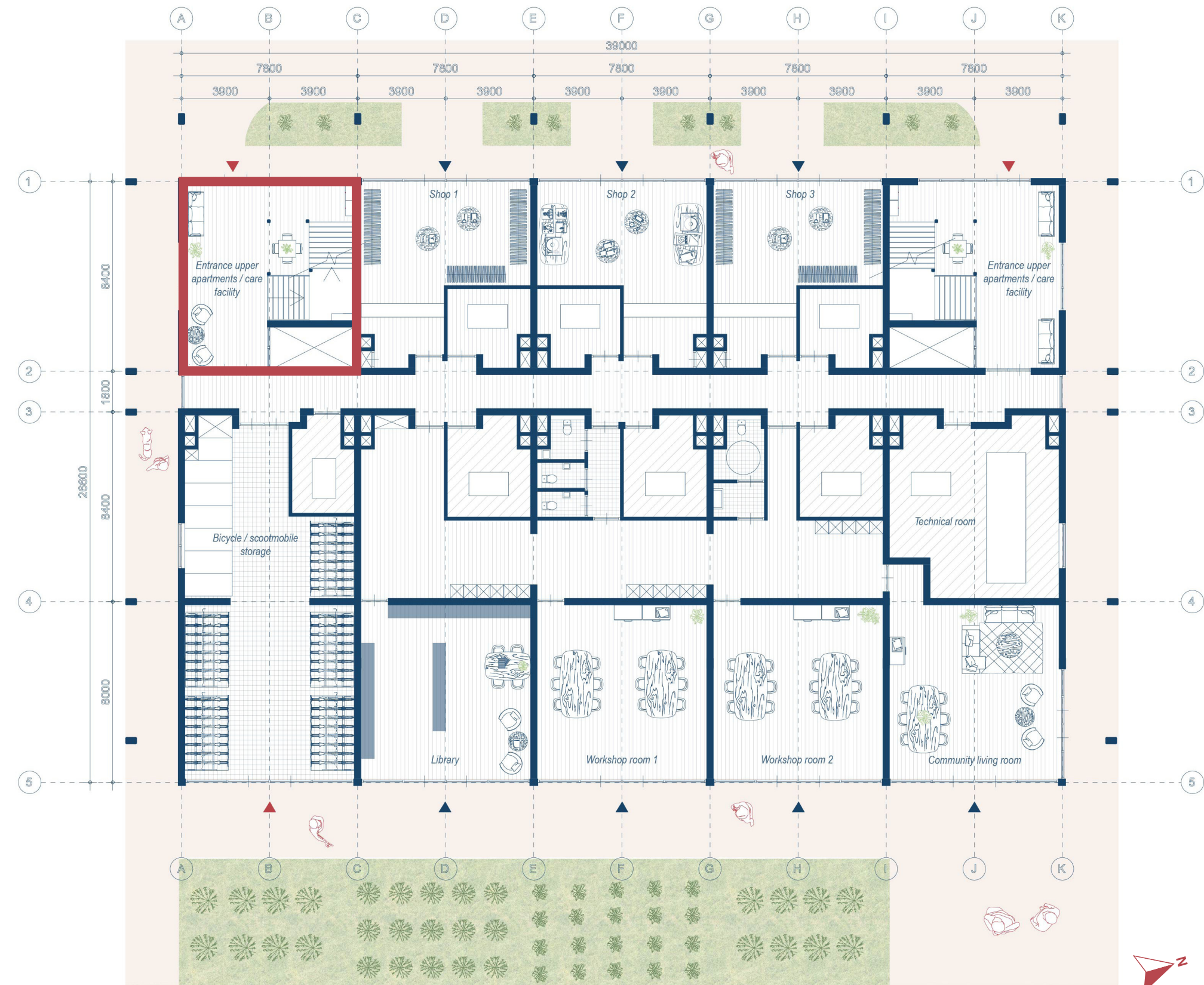
GROUND FLOOR
1:200





Legend

-  = Public entrances
-  = Entrance for the residents

GROUND FLOOR
1:200

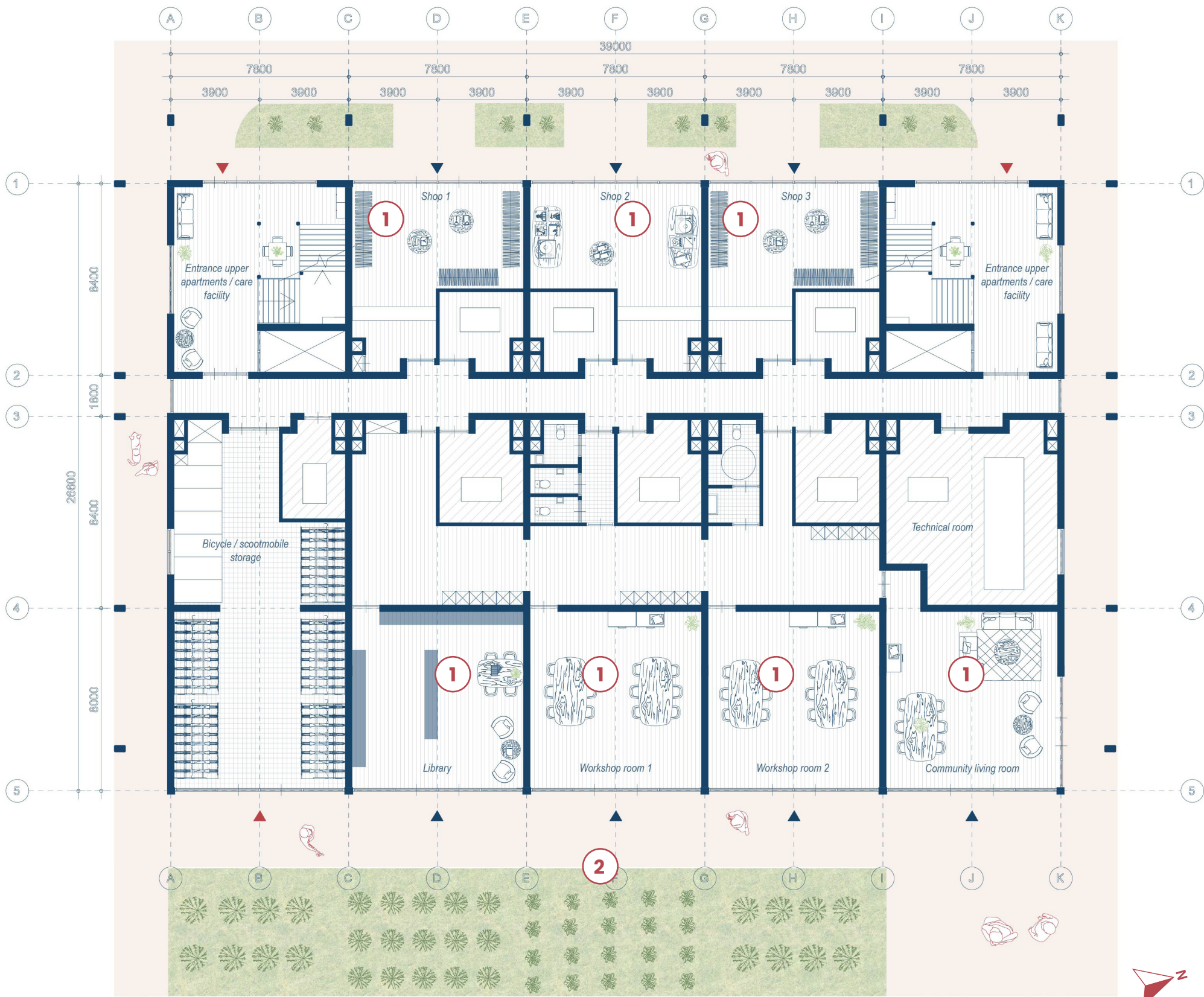


Legend

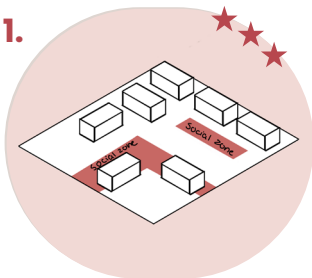
-  = Public entrances
-  = Entrance for the residents

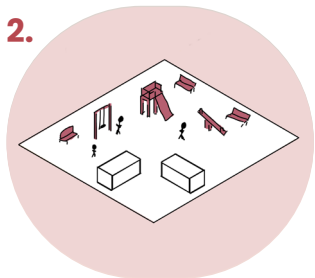
GROUND FLOOR

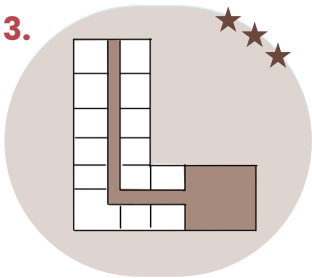
1:200

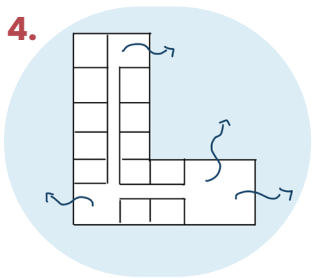


Used guidelines

- 

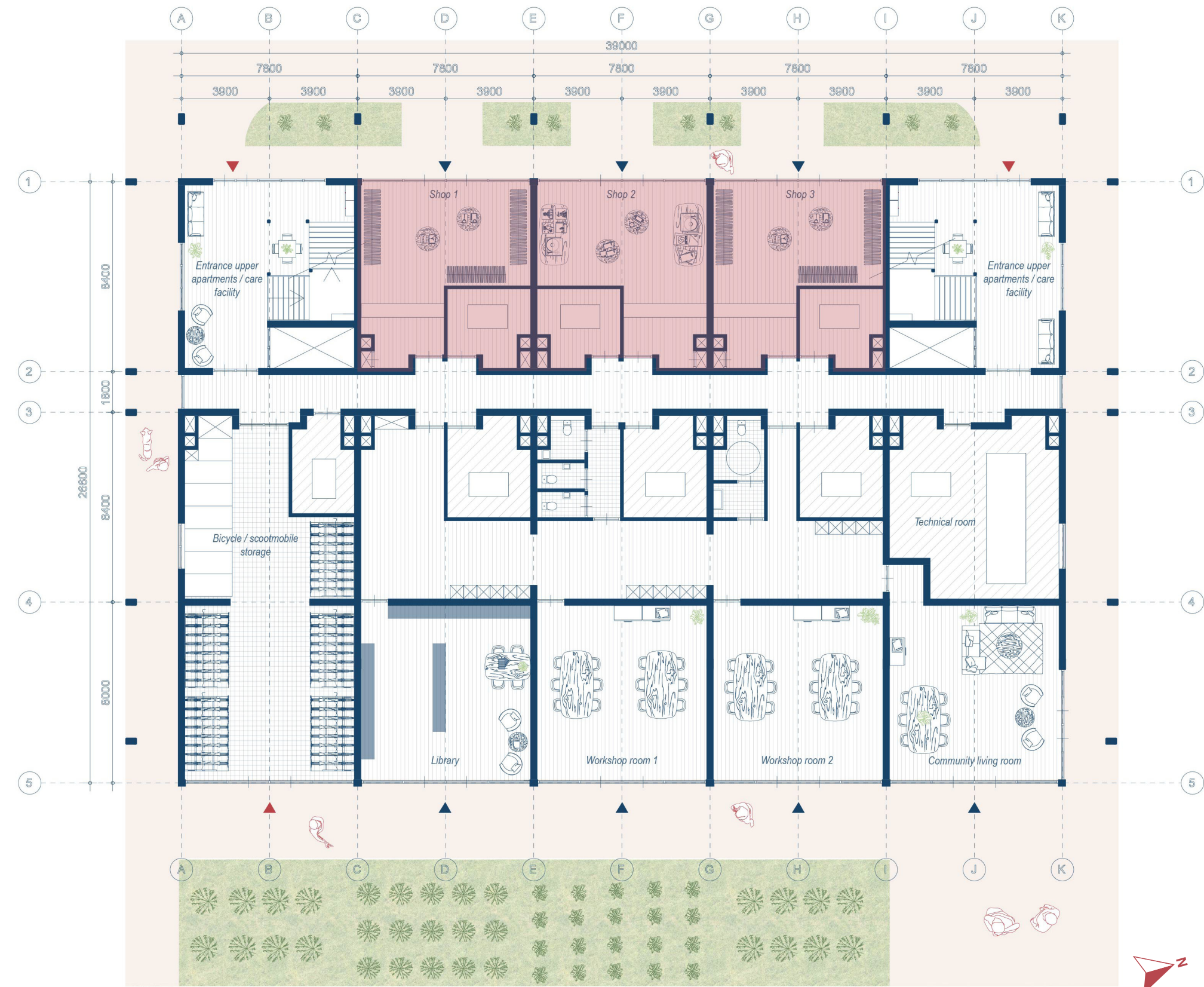
Create **social zones** in the environment to stimulate interaction and connection with the neighborhood
- 

Ensure views of a nearby playground or an animal enclosure, creating lively and **dynamic visuals**
- 



Design **simple floor plans**. Use straight, L or H shaped corridors for clear
- 

Ensure residents can **independently access safe (outdoor) spaces** like gardens

GROUND FLOOR
1:200



Legend


-  = Public entrances
-  = Entrance for the residents



1:200

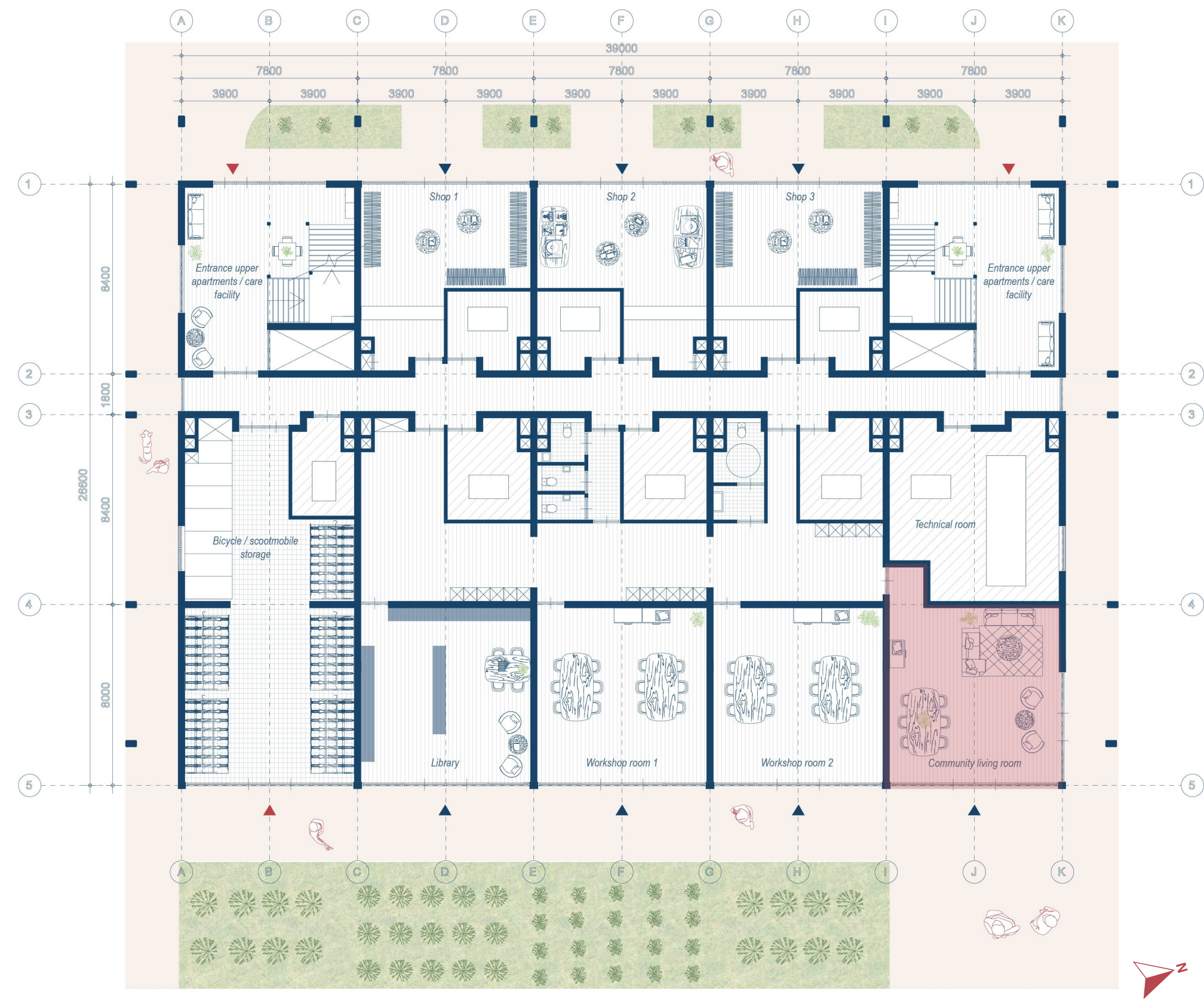


▶ = Public entrances



 = Entrance for the residents



GROUND FLOOR
1:200

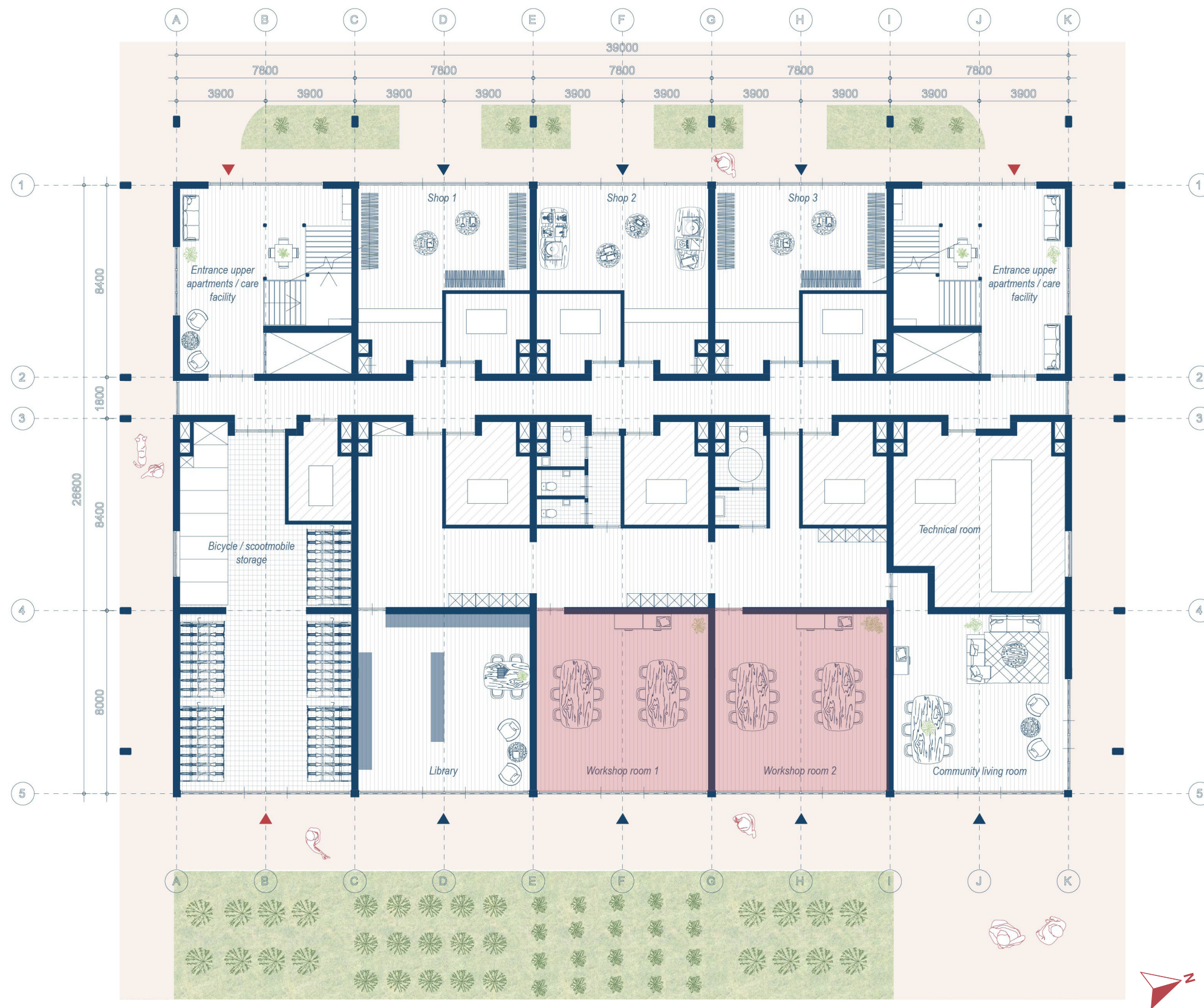


Legend

-  = Public entrances
-  = Entrance for the residents



1:200



Legend

▶ = Public entrances

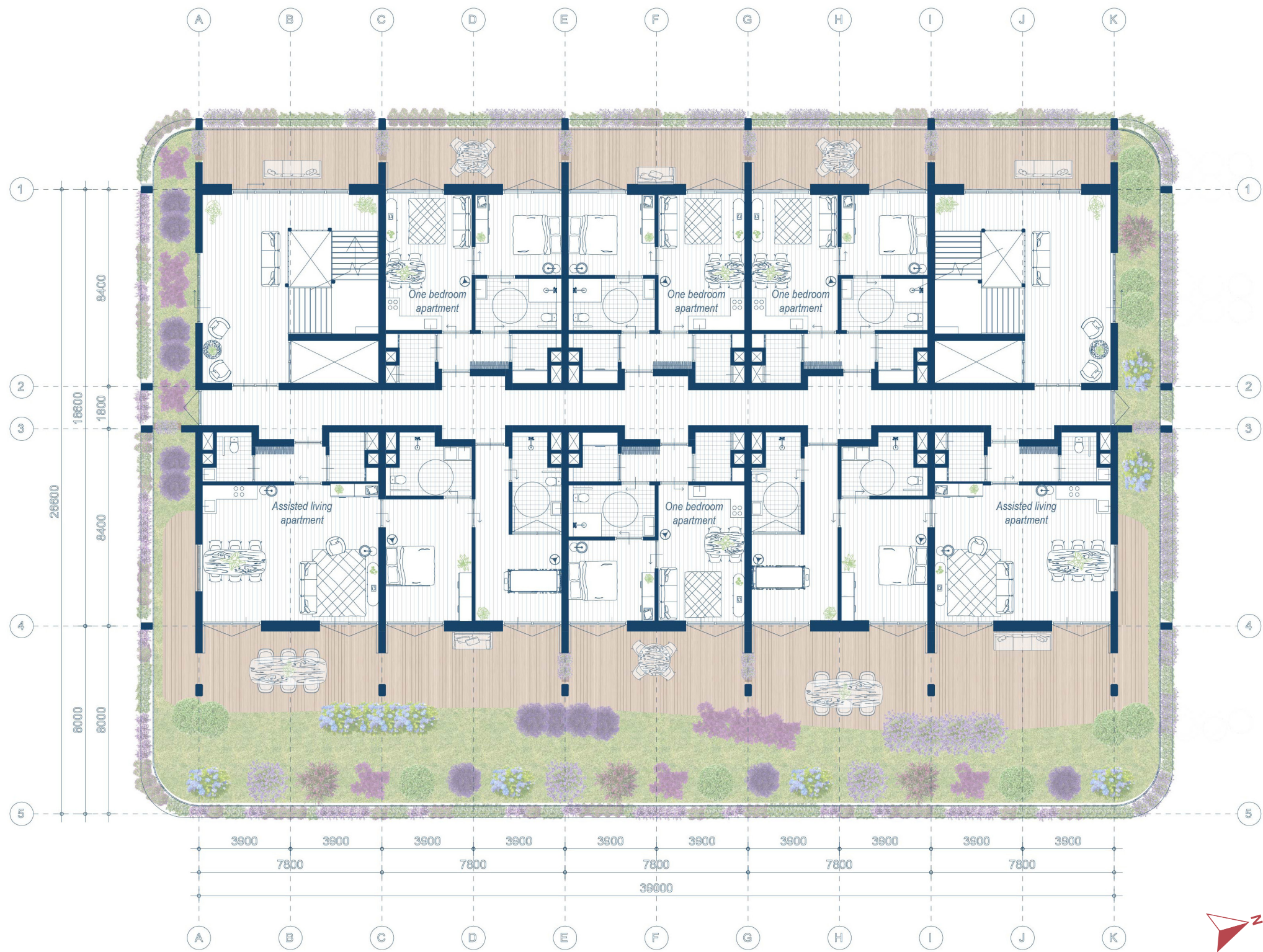
 = Entrance for the residents



WORKSHOP ROOM



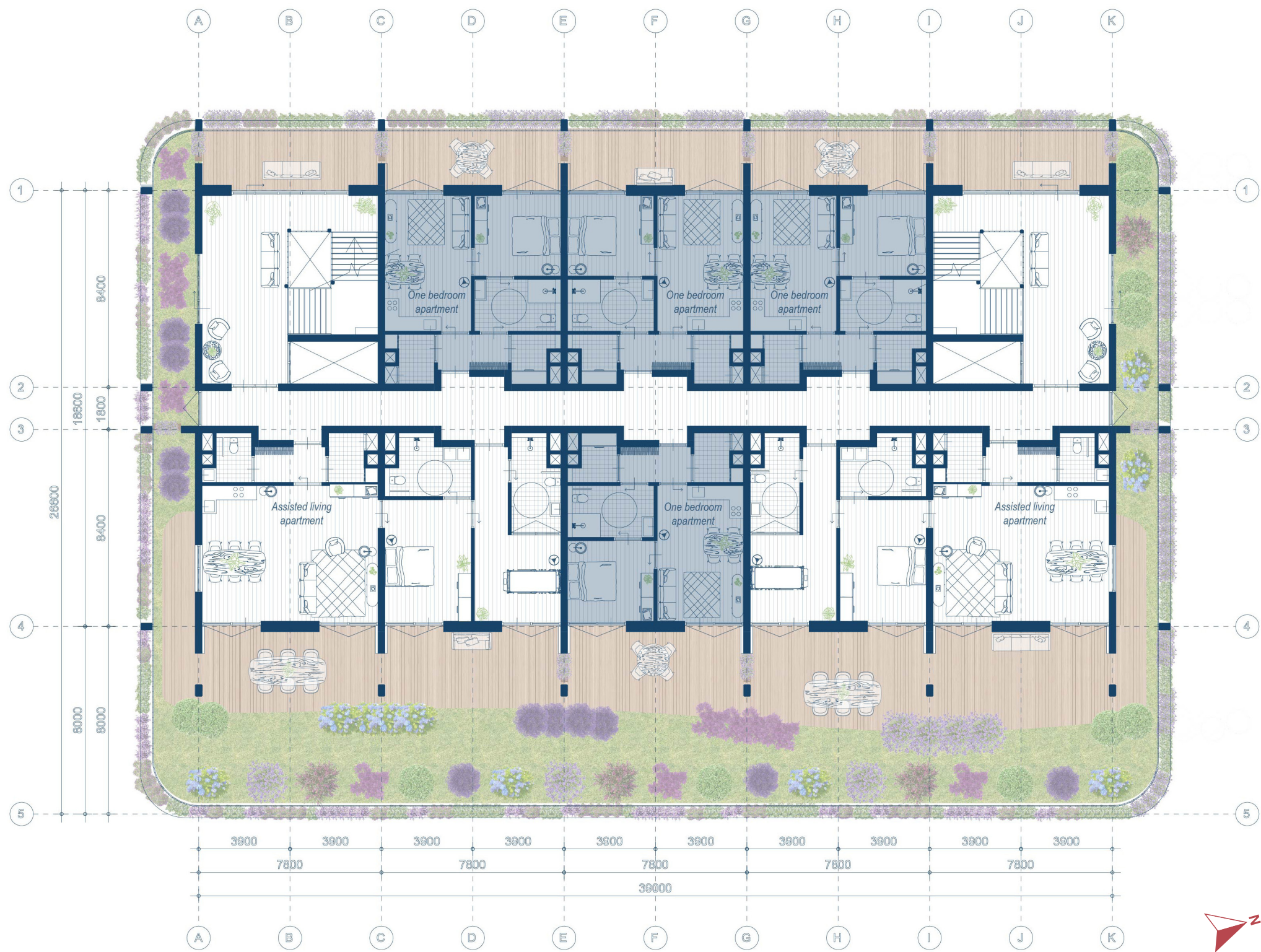
FIRST FLOOR
1:200



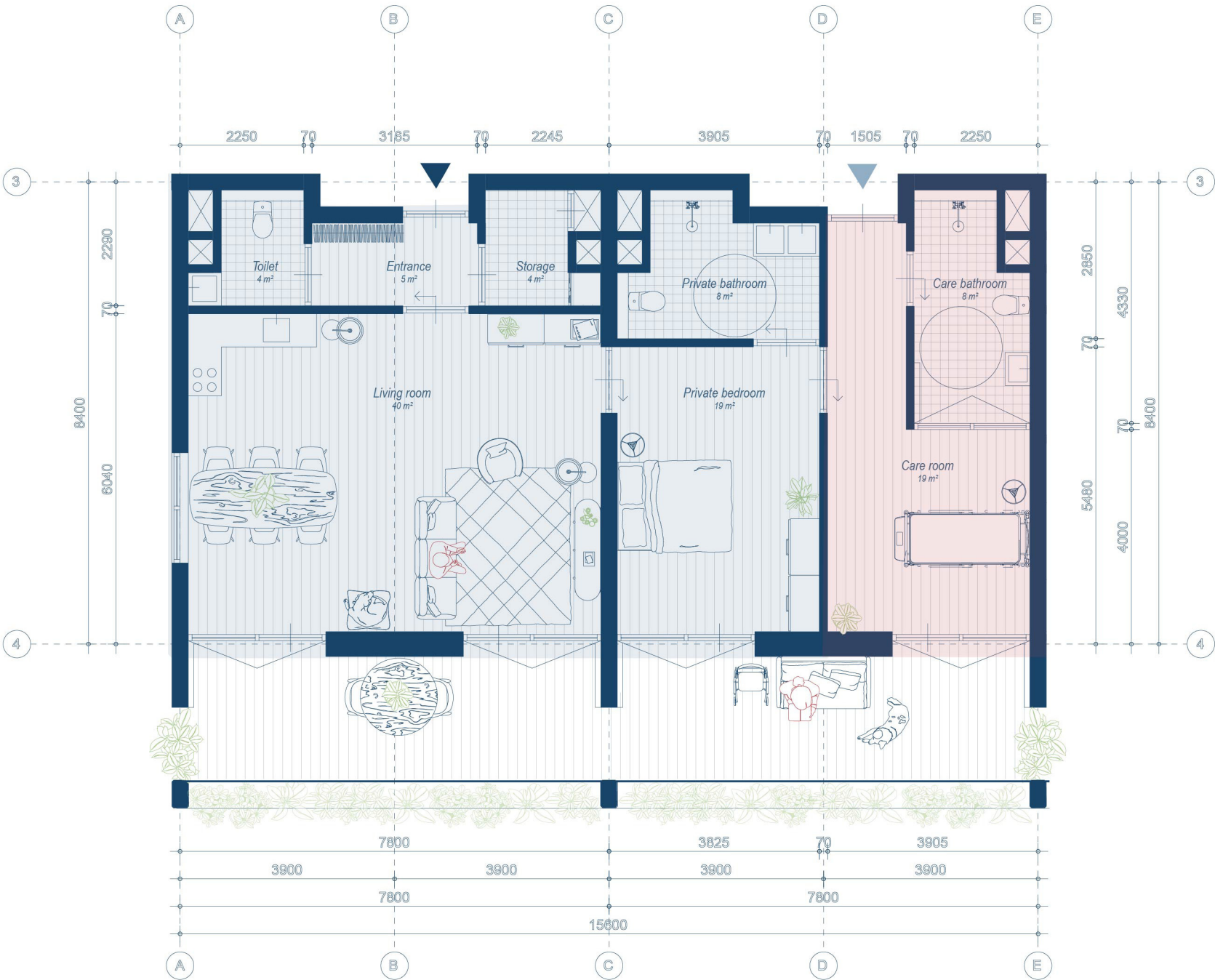
FIRST FLOOR
1:200



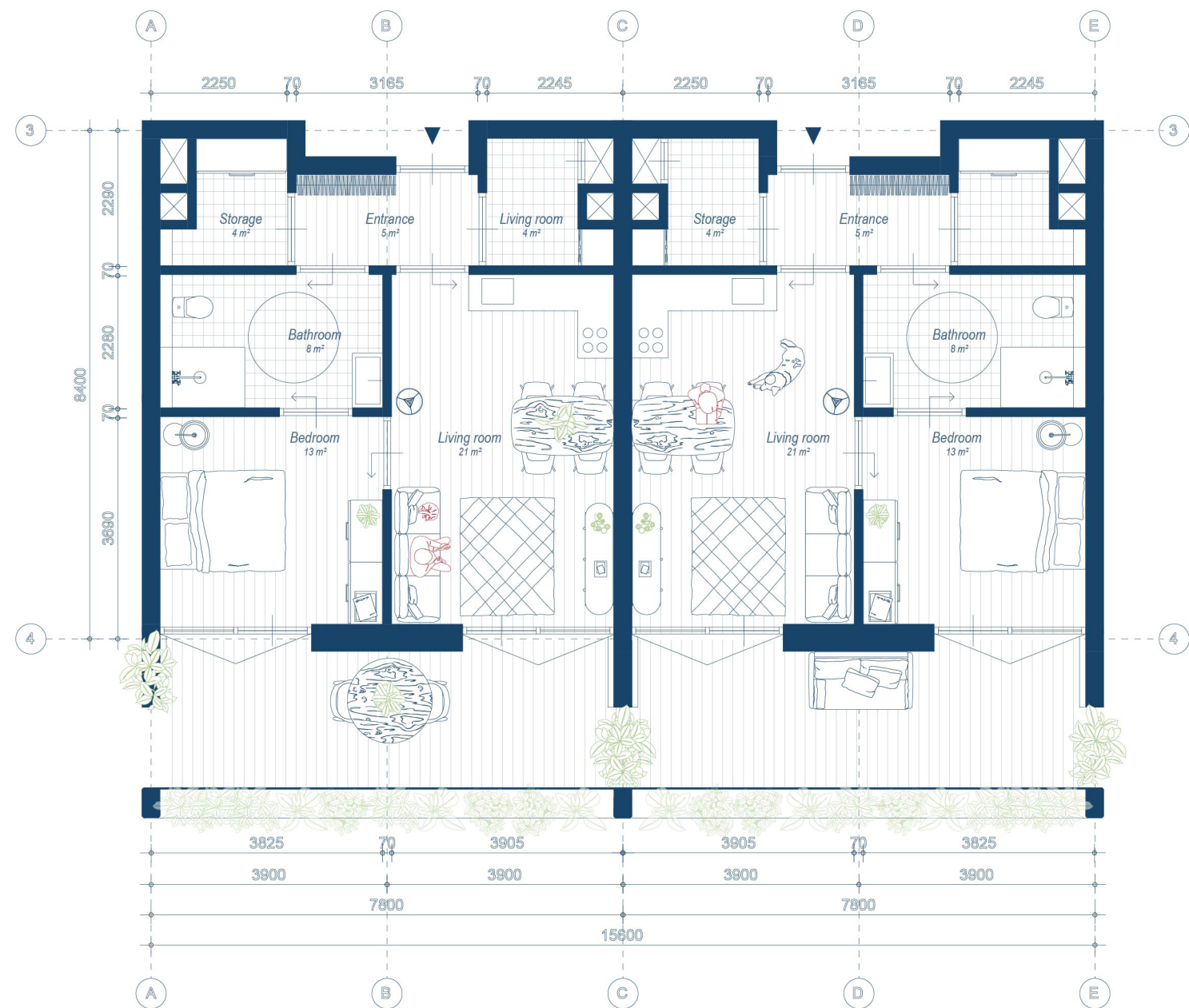
FIRST FLOOR
1:200



ASSISTED LIVING APARTMENT
1:100

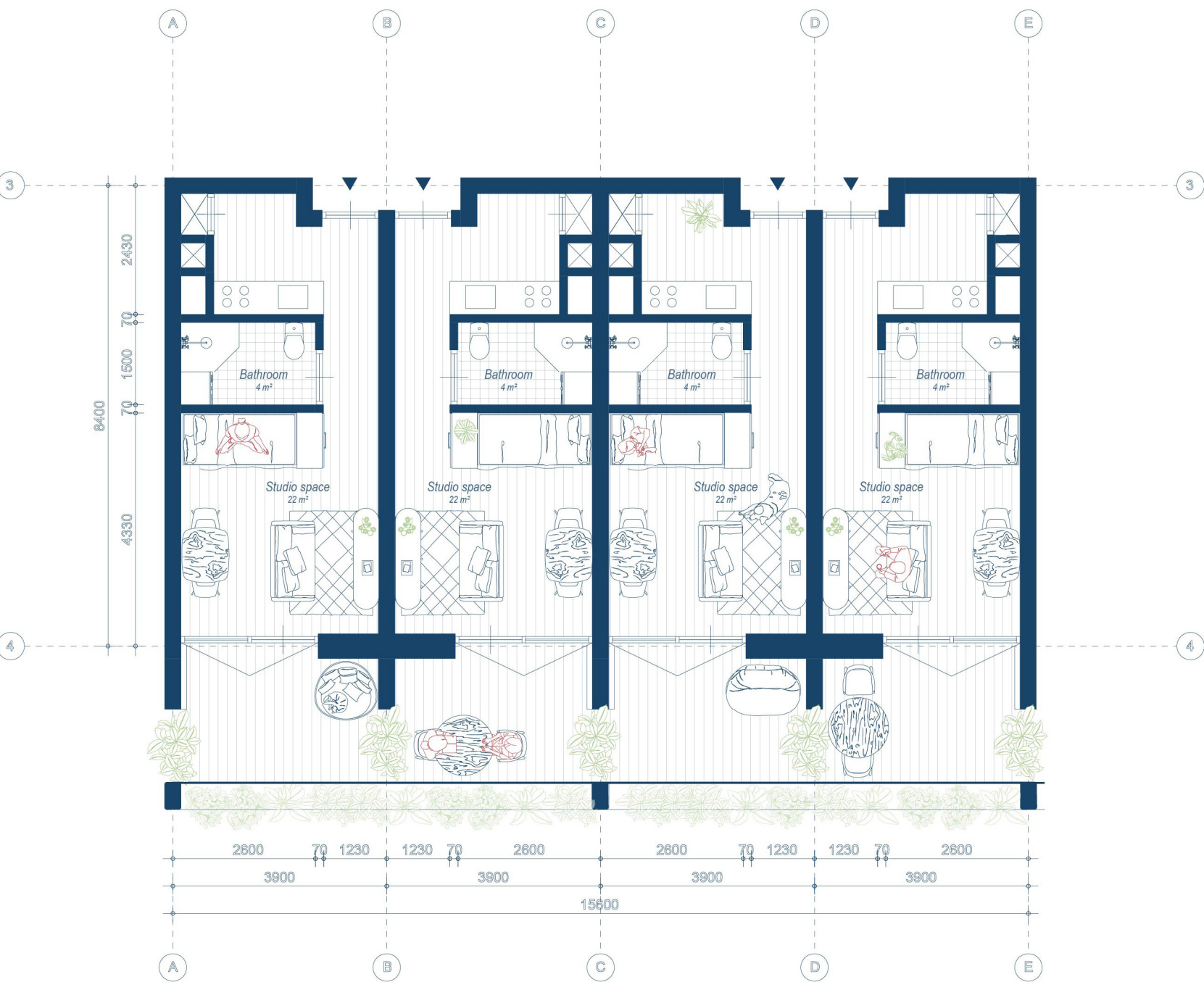


ONE BEDROOM APARTMENT
1:100



FUTURE OPTION: STUDIO SPACES

1:100



THIRD FLOOR
1:200



Used guidelines

0.

Design **simple floor plans**. Use straight, L or H shaped corridors for clear sightlines
1.

Use **looped walking paths** through the inner courtyard
2.

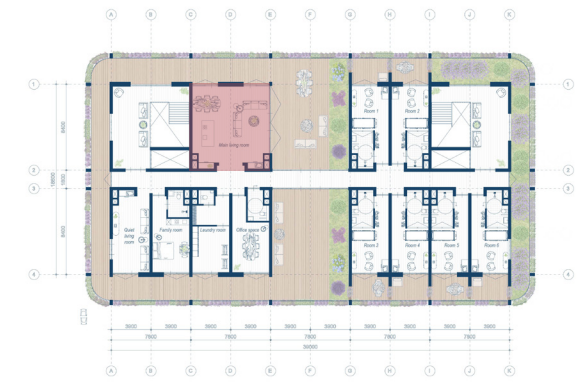
Create **small living units** to enhance comfort and autonomy
3.

Ensure residents can **independently access safe (outdoor) spaces** like gardens
4.

Use **sociopetal and sociofugal layouts** to promote privacy / social spaces
5.

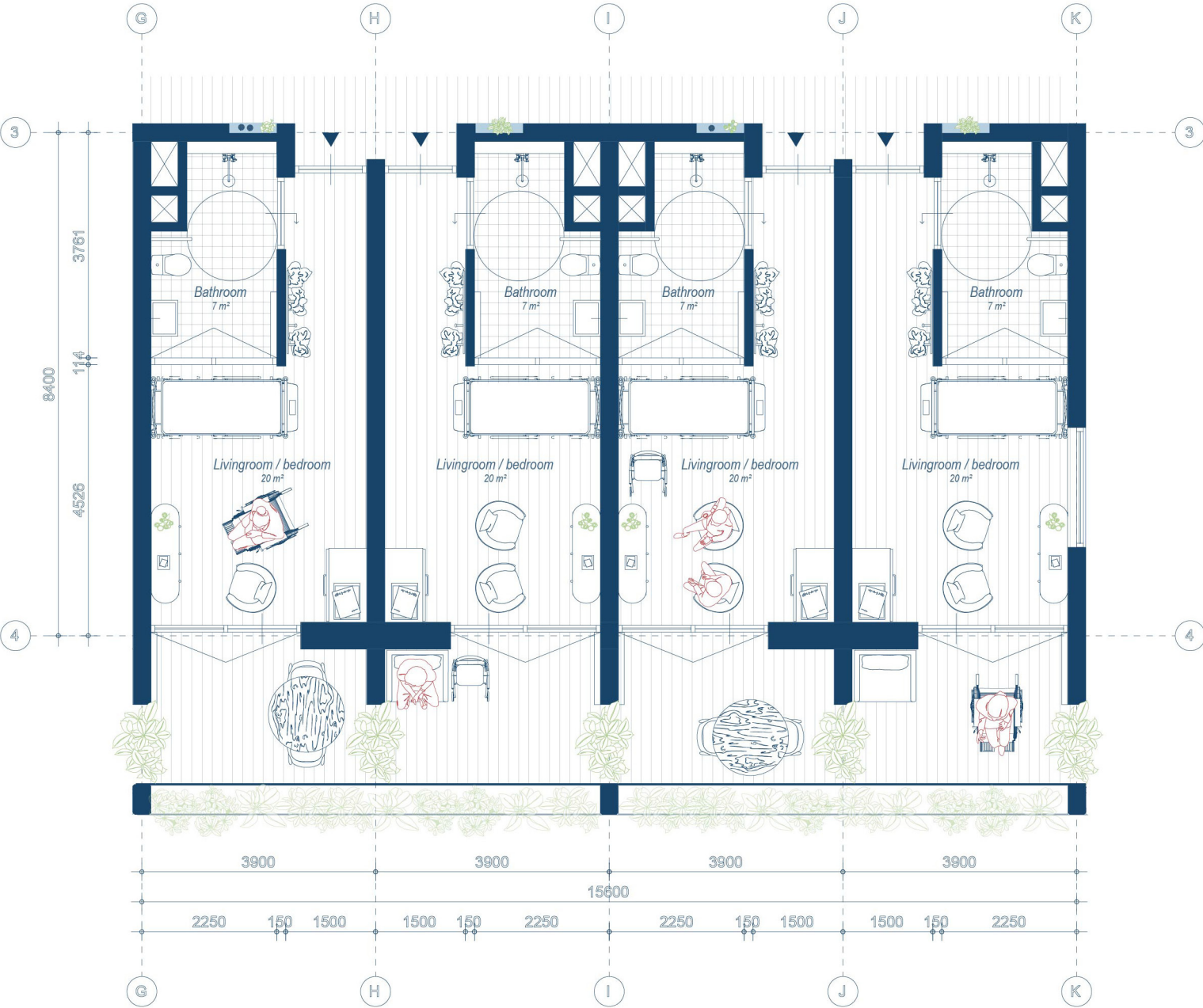
Design **enclosed balconies** for residents on higher floors to enable private outdoor access





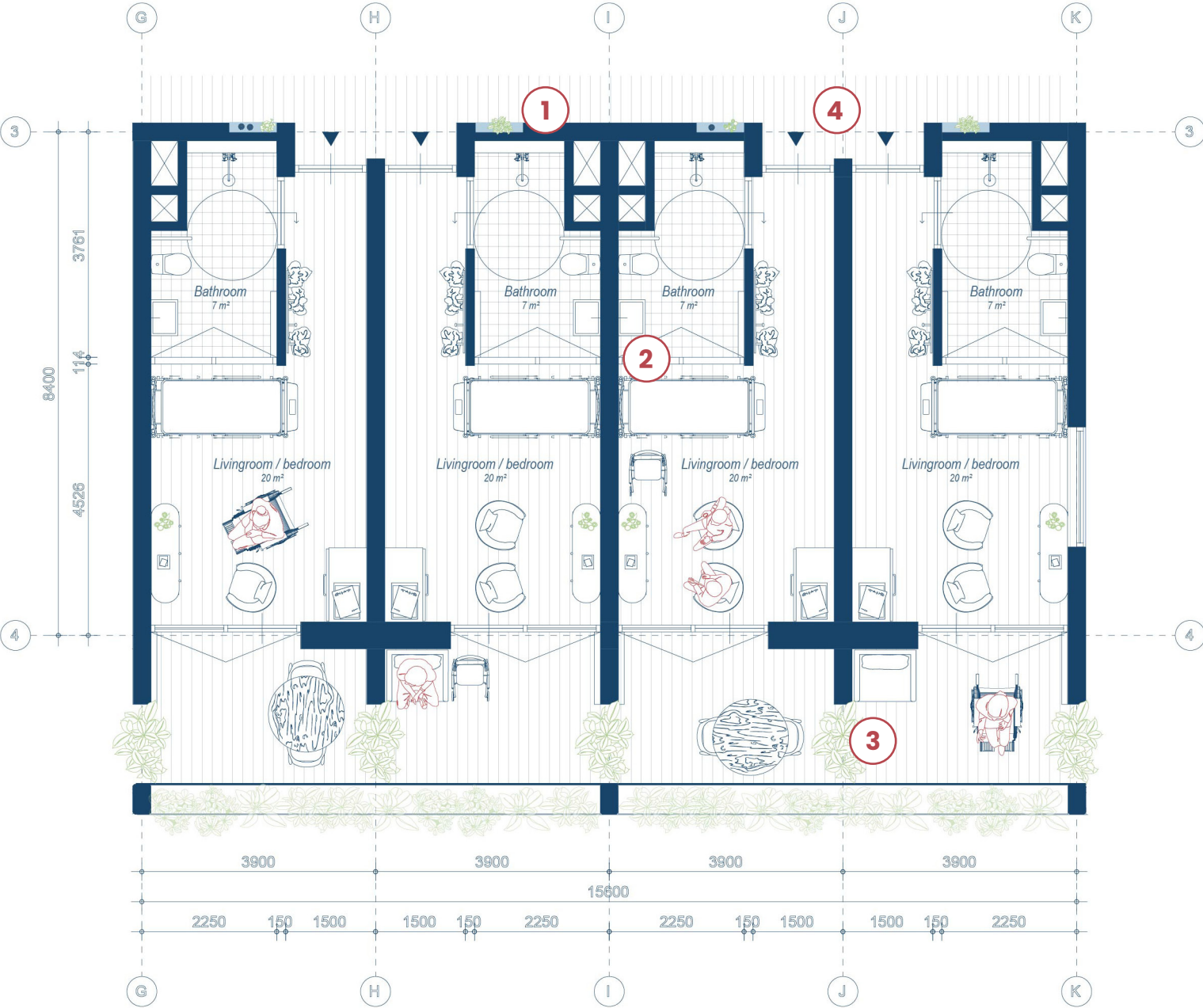


ROOMS SEVERE DEMENTIA CASES
1:100



ROOMS SEVERE DEMENTIA CASES

1:100



Used guidelines

1.

Incorporate **familiar items** near the room entrance
1.

Design the entrance space with a **recess** to integrate personal items effectively
2.

Design private bathrooms with a **direct line of sight** from the bedroom
3.

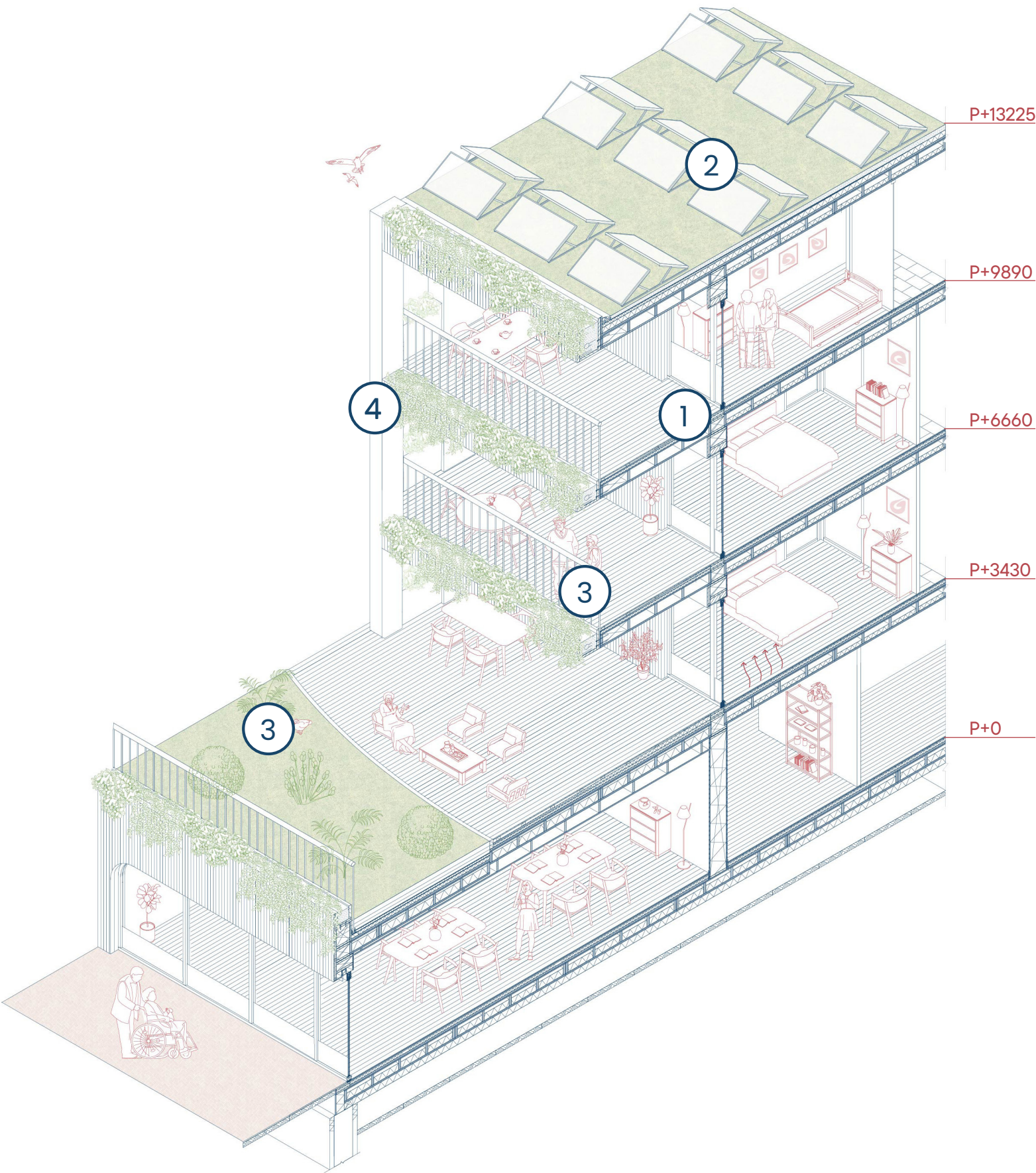
Design **enclosed balconies** for residents on higher floors to enable private outdoor access
4.

Ensure **minimal contrast** between floor materials of private rooms and corridors
5.

Design rooms that are **at least 15m²** to accommodate personal furnishings and activities

CLIMATE ARCHITECTURAL DESIGN PRINCIPLES

- 1 The 2,4 meter overhangs provide sufficient shade on the balconies during summer. As a result, the sun will not shine directly into the rooms in summer, helping to reduce heat in these spaces.
- 2 The green roof helps cool the PV panels, which increases their efficiency.
- 3 The plants on the balconies & the biodiversity garden improve air quality and enhance the biodiversity.
- 4 Rainwater falling on the balconies is drained through a hollow column. The collected water can be used to irrigate the plants on the sides of the balconies.



CLIMATE DIAGRAMS

1:200



Climate diagram summer



Climate diagram winter

1 The 2,4 meter overhangs provide **sufficient shade** on the balconies during summer. As a result, the sun will not shine directly into the rooms in summer, helping to reduce heat in these spaces.

2 The green roof helps cool the PV panels, which increases their efficiency.

3 Ventilation system D will be used, supplying fresh air to living areas while extracting polluted air. **With heat recovery, it can reclaim up to 95% of the heat from extracted air**, reducing energy costs. This system also ensures a constant flow of fresh air and stable indoor air quality for a more comfortable living environment.

4 In summer, cold water flows through the floor heating system, keeping the apartment cool.

5 The plants on the balconies **improve air quality, provide natural shade** in summer and **enhance the biodiversity**.

6 The Pluvia system **collects and stores rain-water from the roof**. This water can then be used for irrigating plants, flushing toilets, and running washing machines.

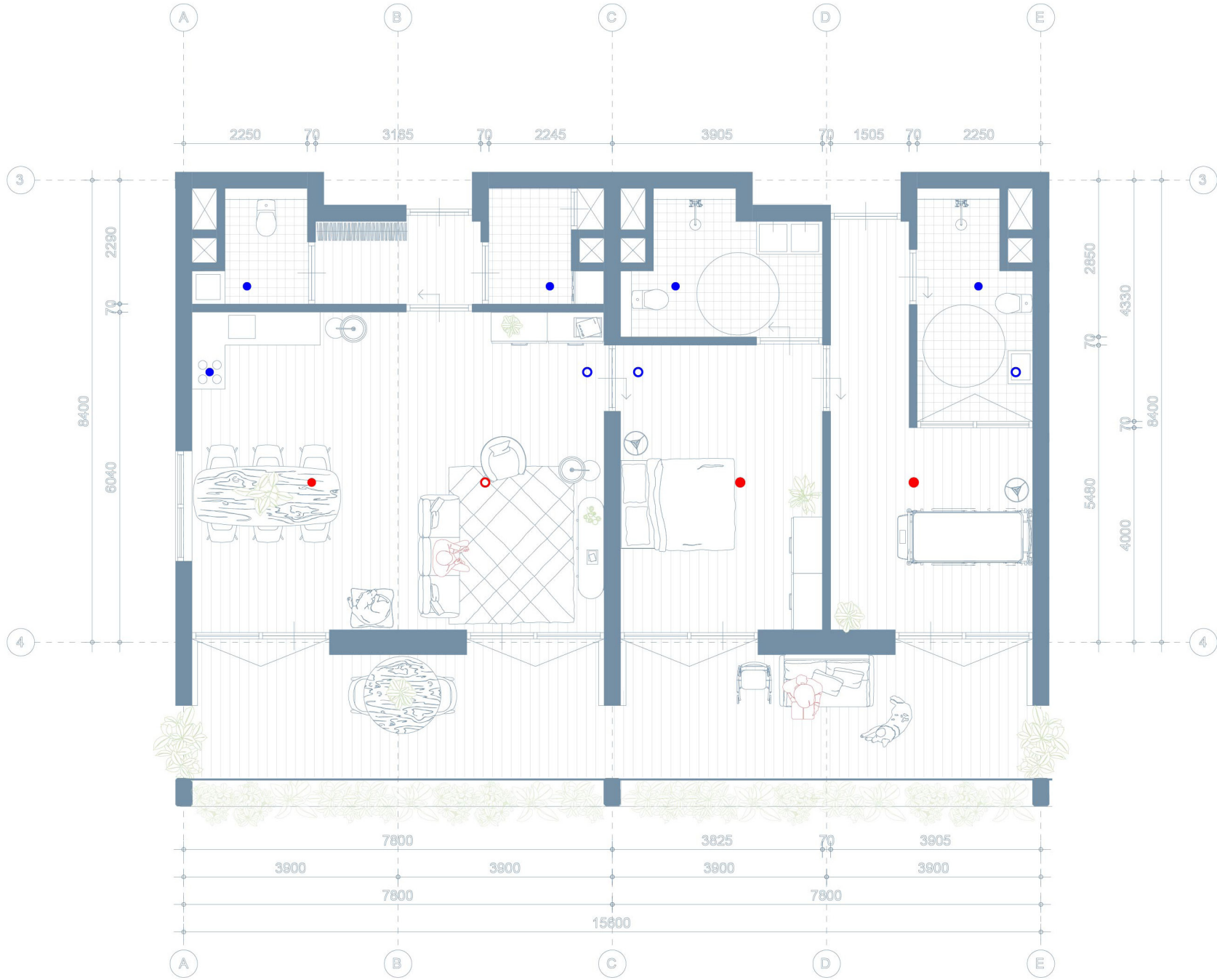
7 A WKO (Warmte Koude Opslag) system stores **thermal energy in the ground**, using it for heating in the winter and cooling in the summer. This system is energy-efficient and reduces the need for conventional heating and cooling methods.

8 In winter, the sun is lower in the sky and will shine into the living room.

9 In winter, warm water flows through the floor heating system, keeping the apartment warm.

10 On the ground floor, air handling units with heat recovery are installed as part of ventilation system D. These units supply fresh outdoor air and extract stale indoor air, while simultaneously recovering heat from the outgoing air to preheat the incoming air, contributing to an energy-efficient and comfortable indoor climate.

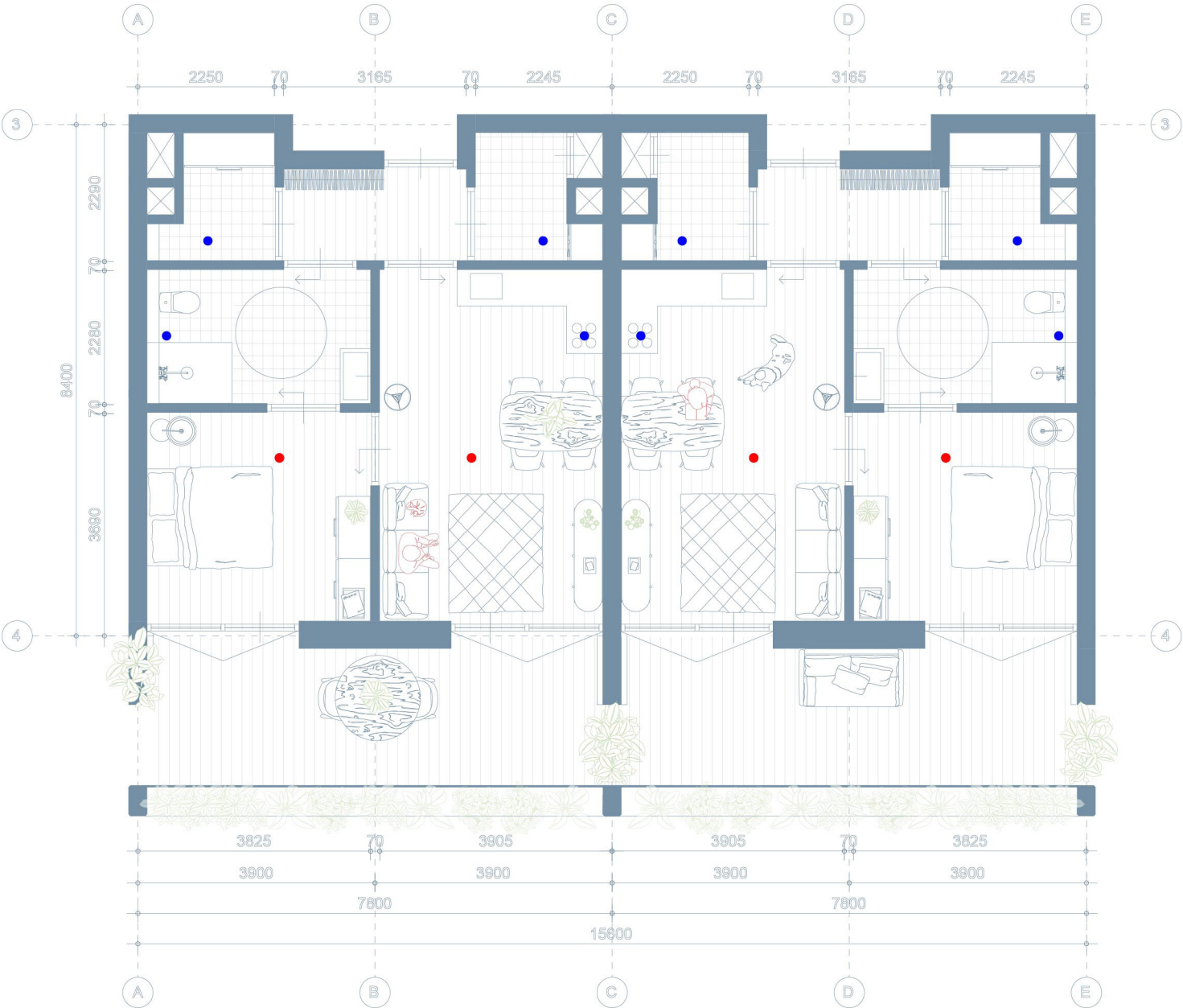
FLEXIBILITY VENTILATION SYSTEM
1x Assisted living



- Legend**
- = Air exhaust in use
 - = Air exhaust not in use
 - = Air supply in use
 - = Air supply not in use

FLEXIBILITY VENTILATION SYSTEM

2x one bedroom apartment

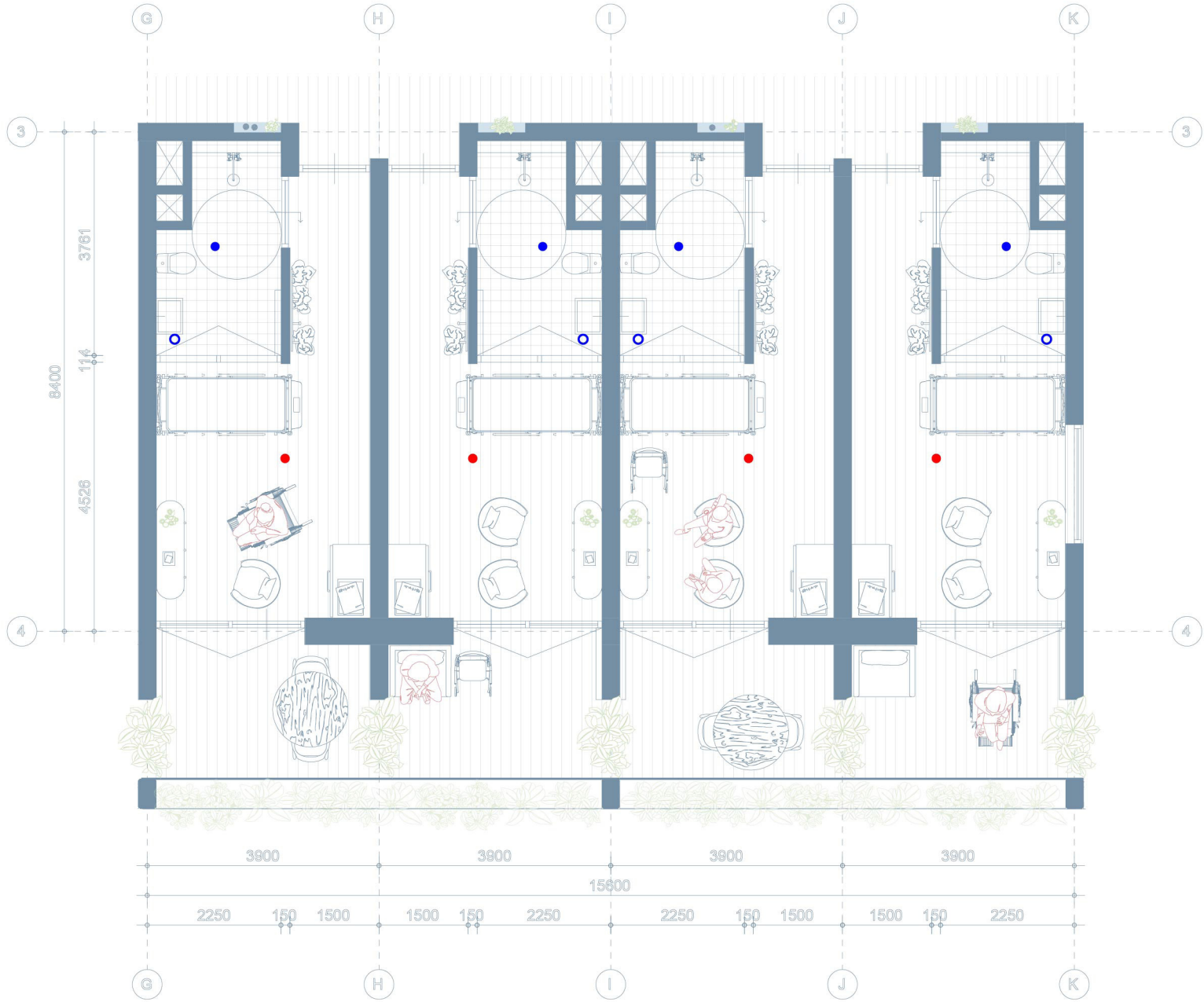


Legend

- = Air exhaust in use
- = Air exhaust not in use
- = Air supply in use
- = Air supply not in use

FLEXIBILITY VENTILATION SYSTEM

4x room for elderly with severe dementia

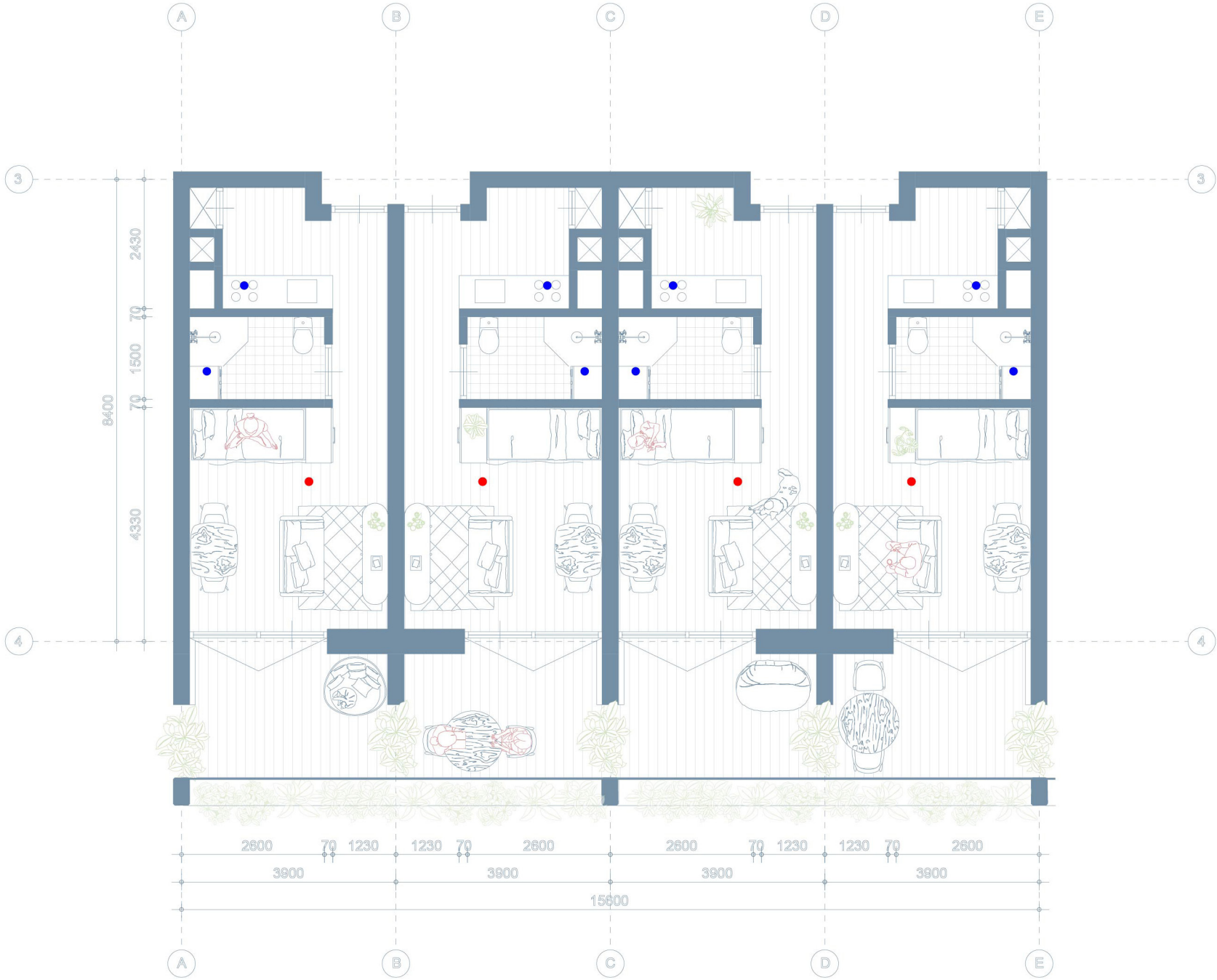


Legend

- = Air exhaust in use
- = Air exhaust not in use
- = Air supply in use
- = Air supply not in use

FLEXIBILITY VENTILATION SYSTEM

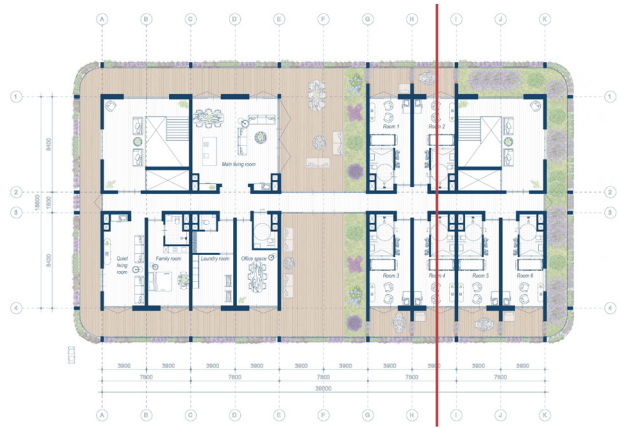
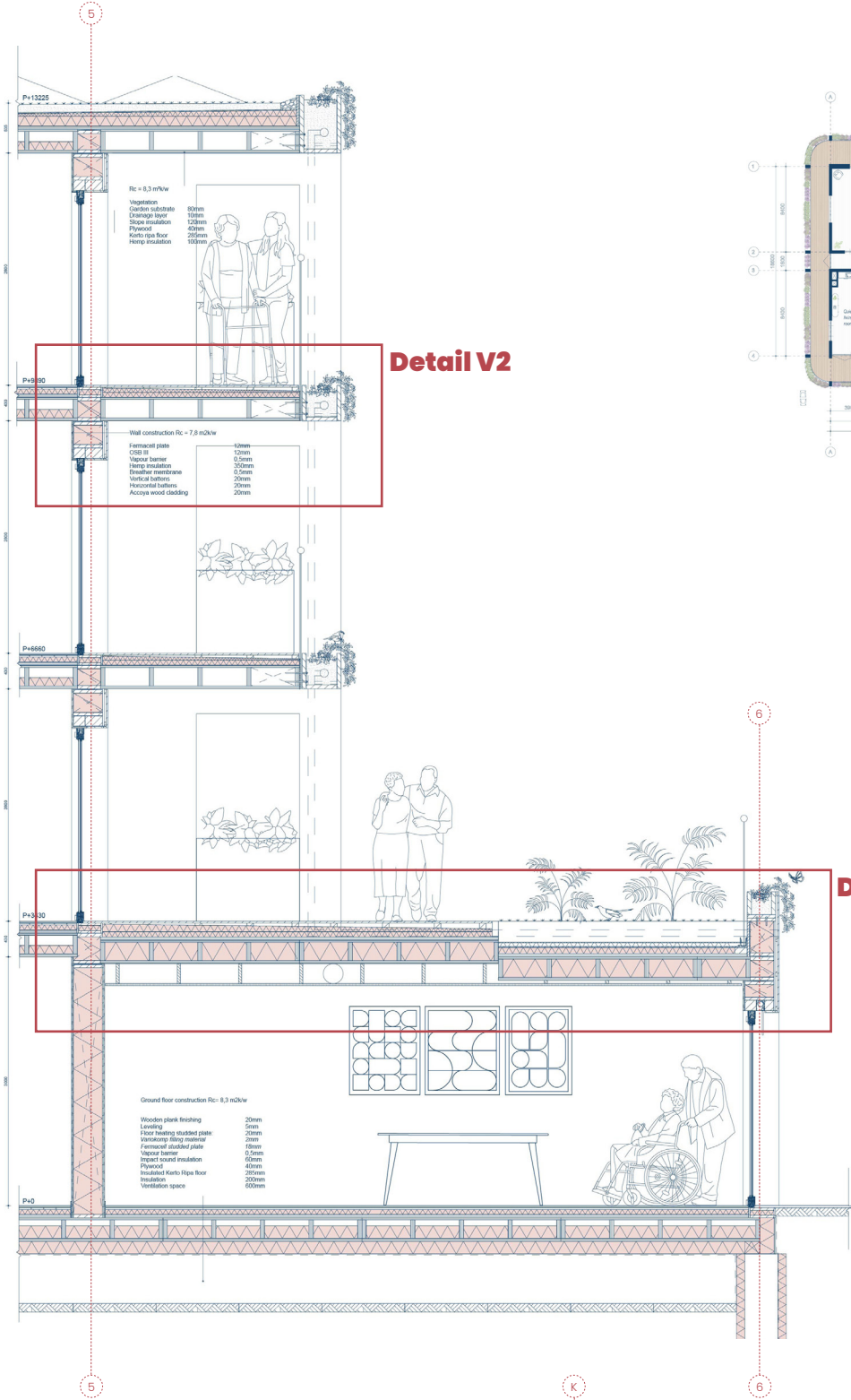
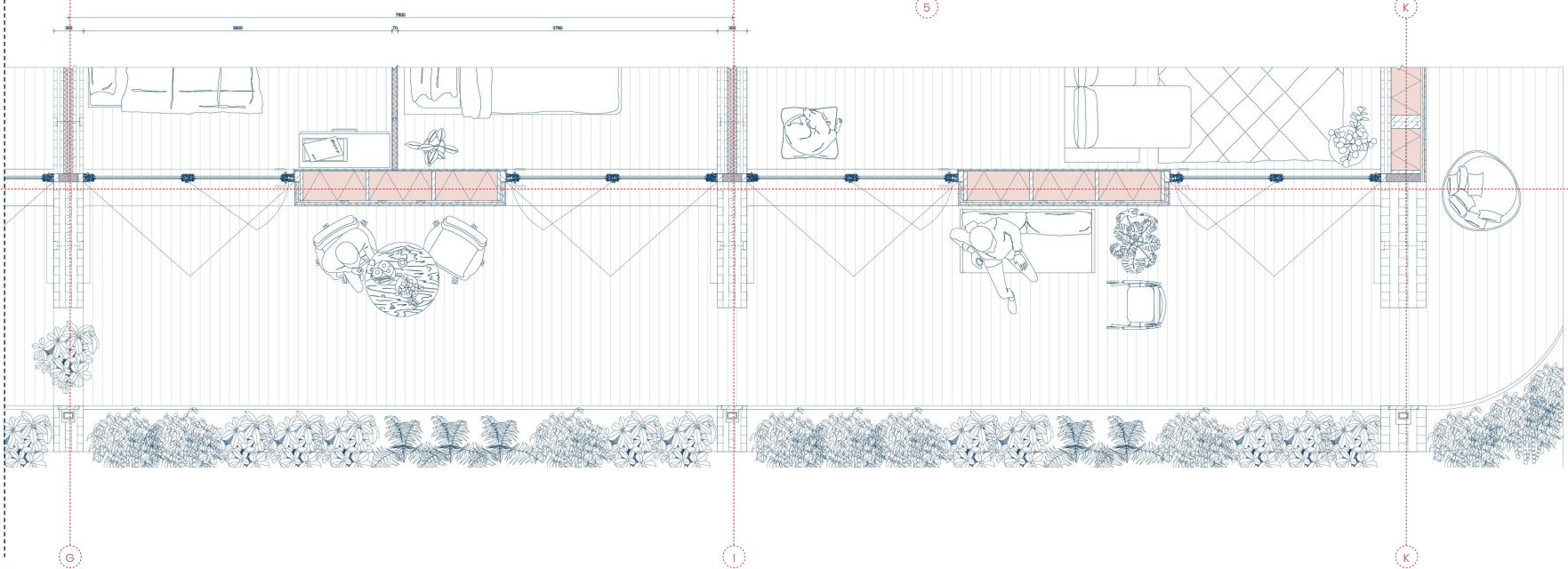
4x studio spaces



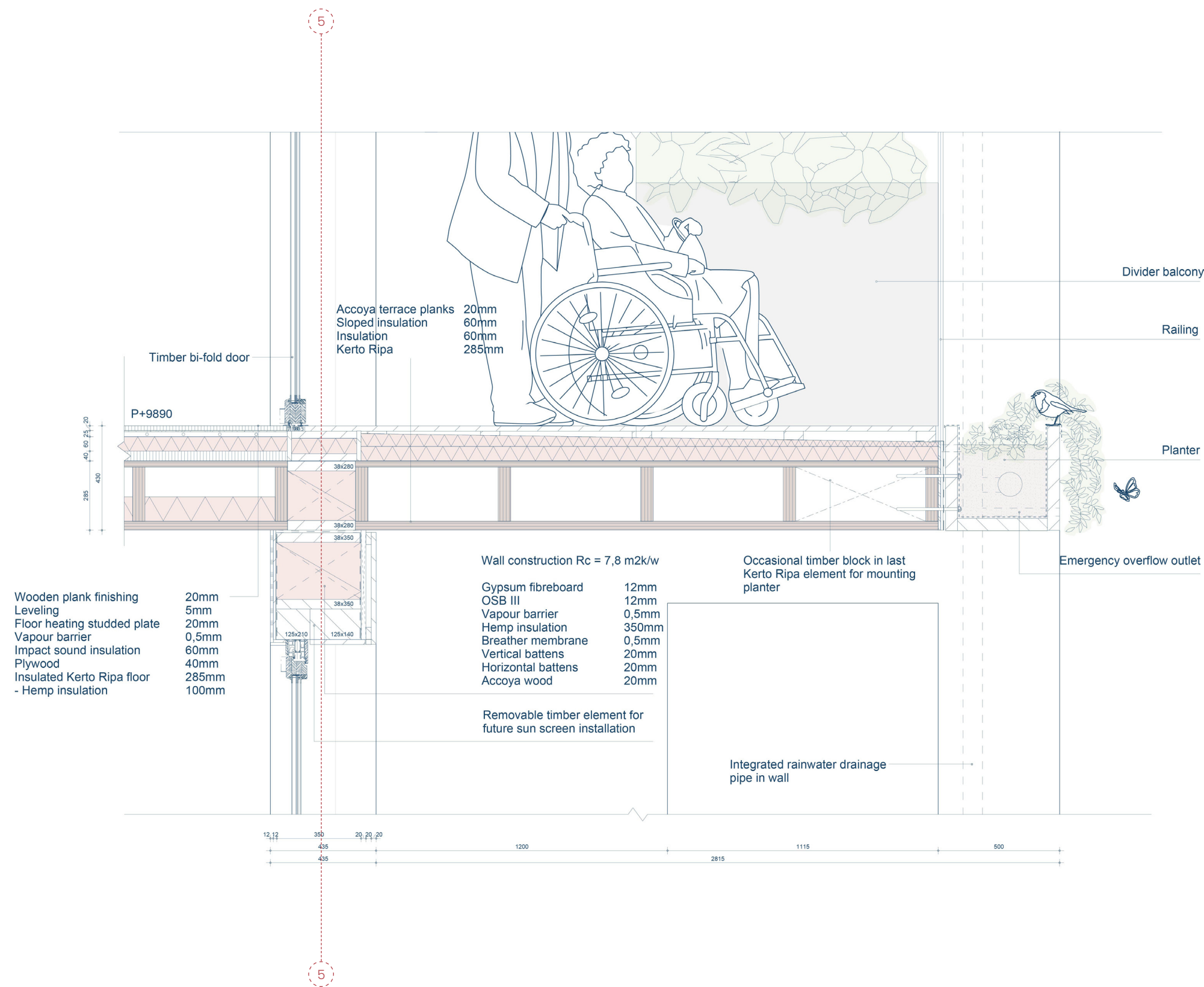
Legend

- = Air exhaust in use
- = Air exhaust not in use
- = Air supply in use
- = Air supply not in use

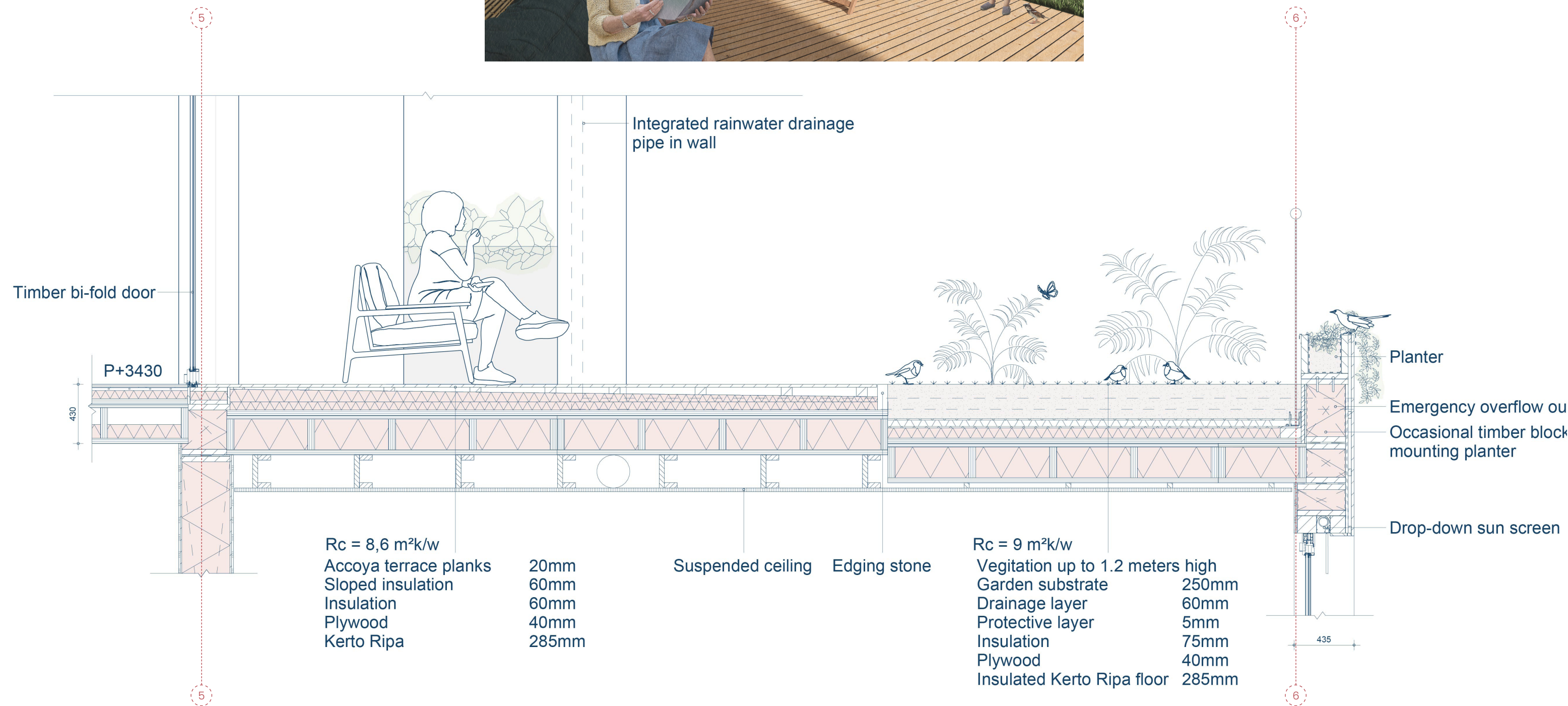
FRAGMENT
1:25 (scaled with 30%)



DETAIL V2
1:10 (Scaled with 50%)

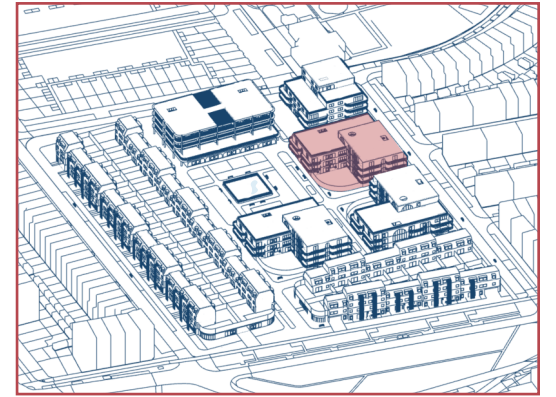


DETAIL V3
1:25 (Scaled with 85%)



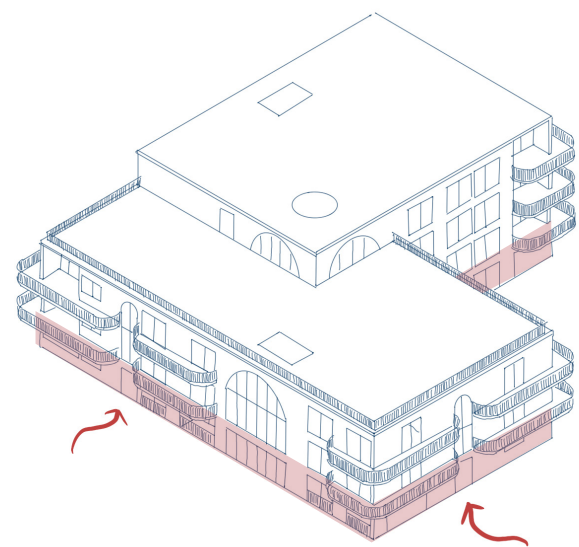
LETS TAKE A WALK...

BUILDING B

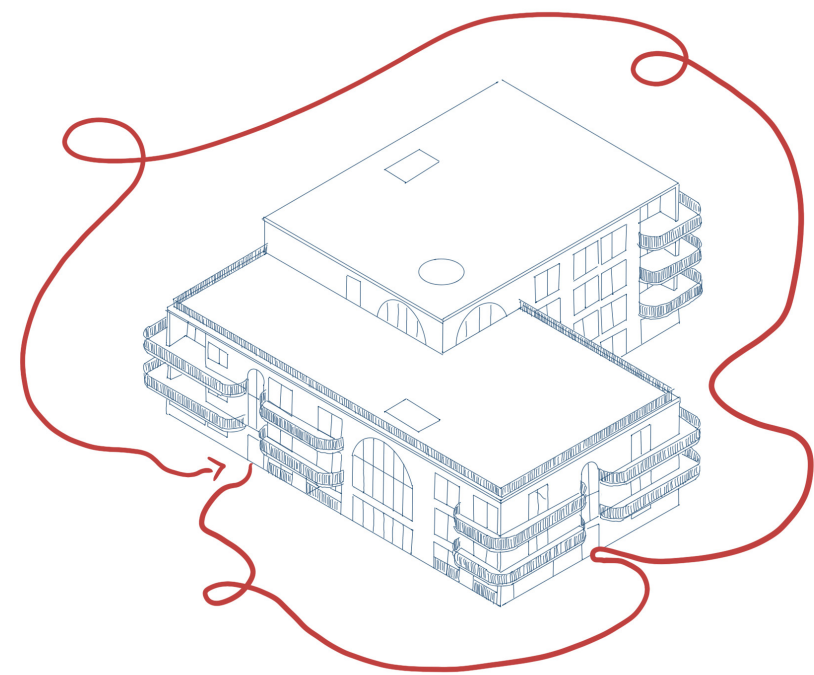
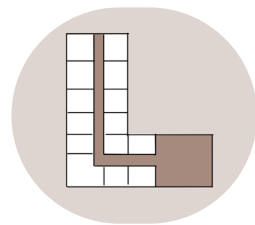
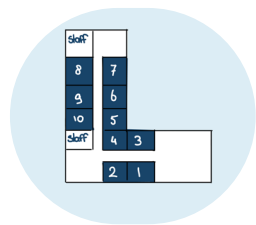




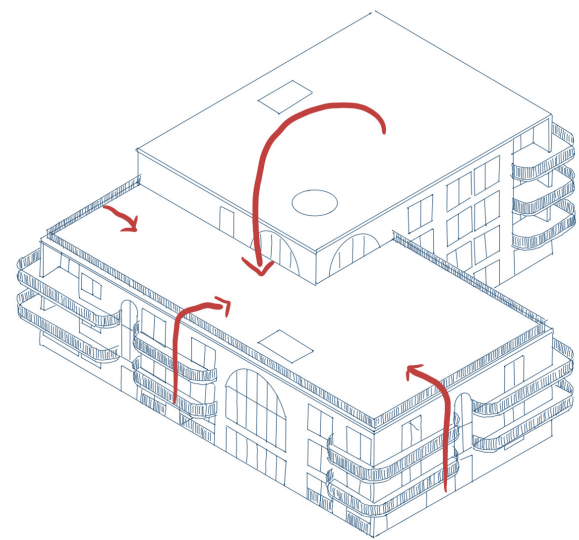
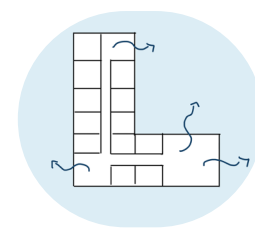
IMPORTANT DESIGN FEATURES



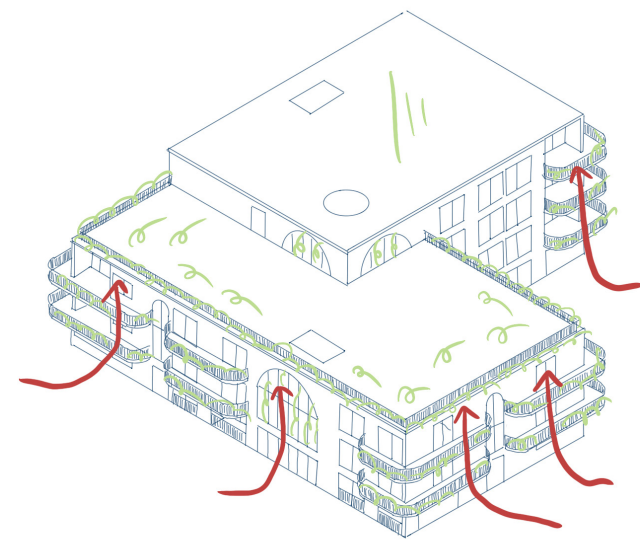
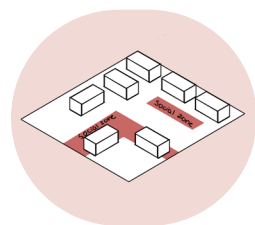
Ground floor dementia



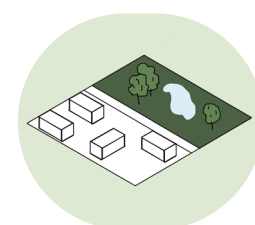
Autonomy to go outside



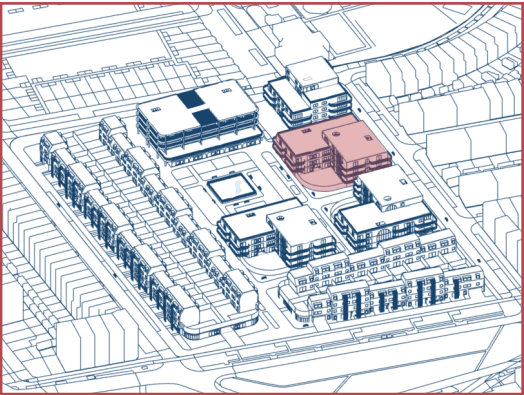
Public roof



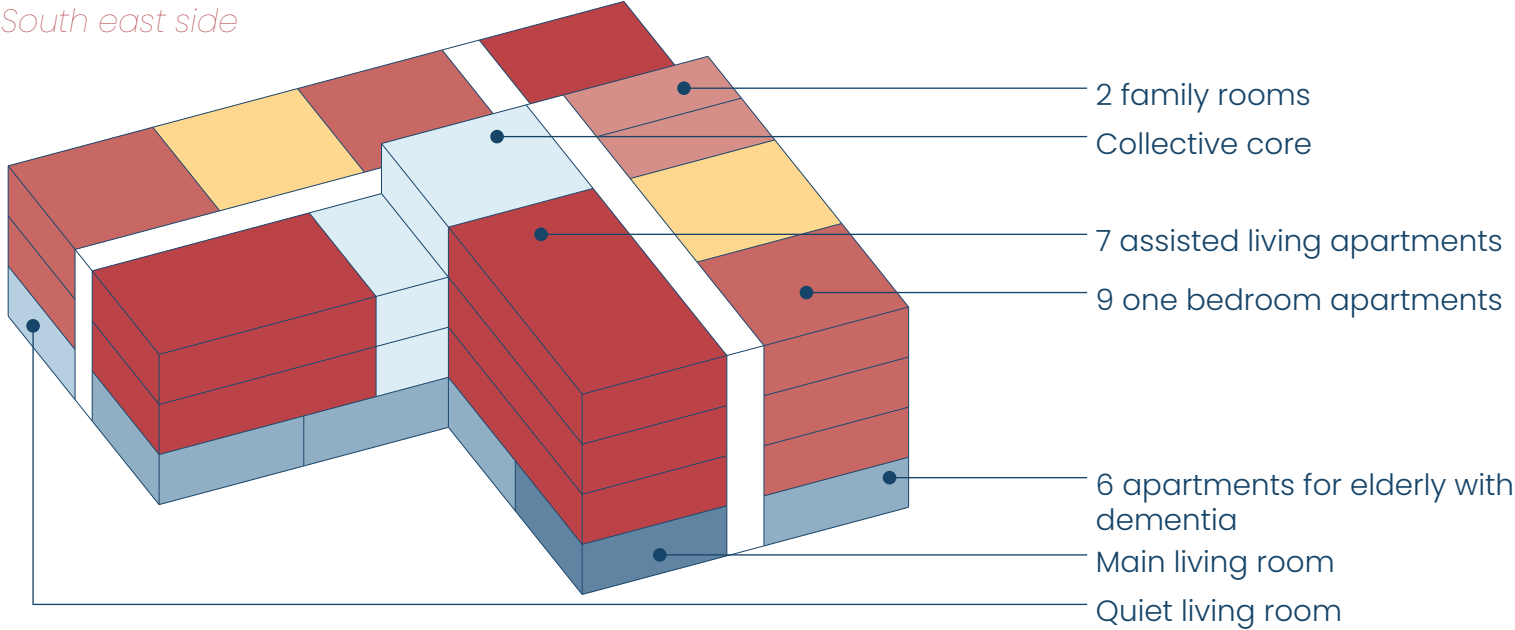
Biodiversity



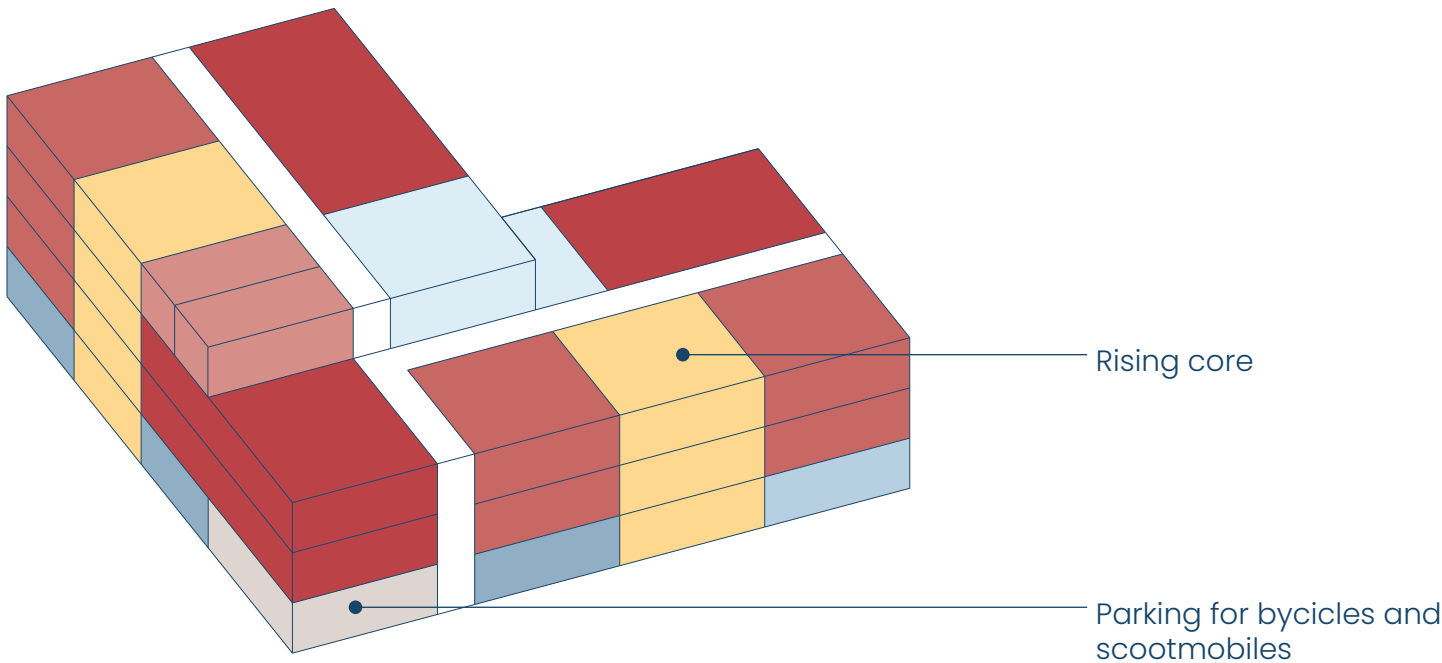
PROGRAM



South east side

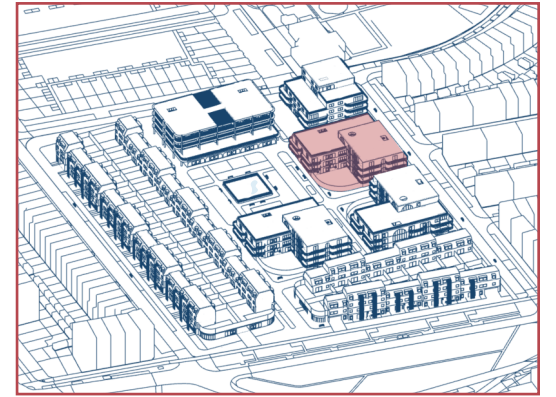


North west side



FACADES

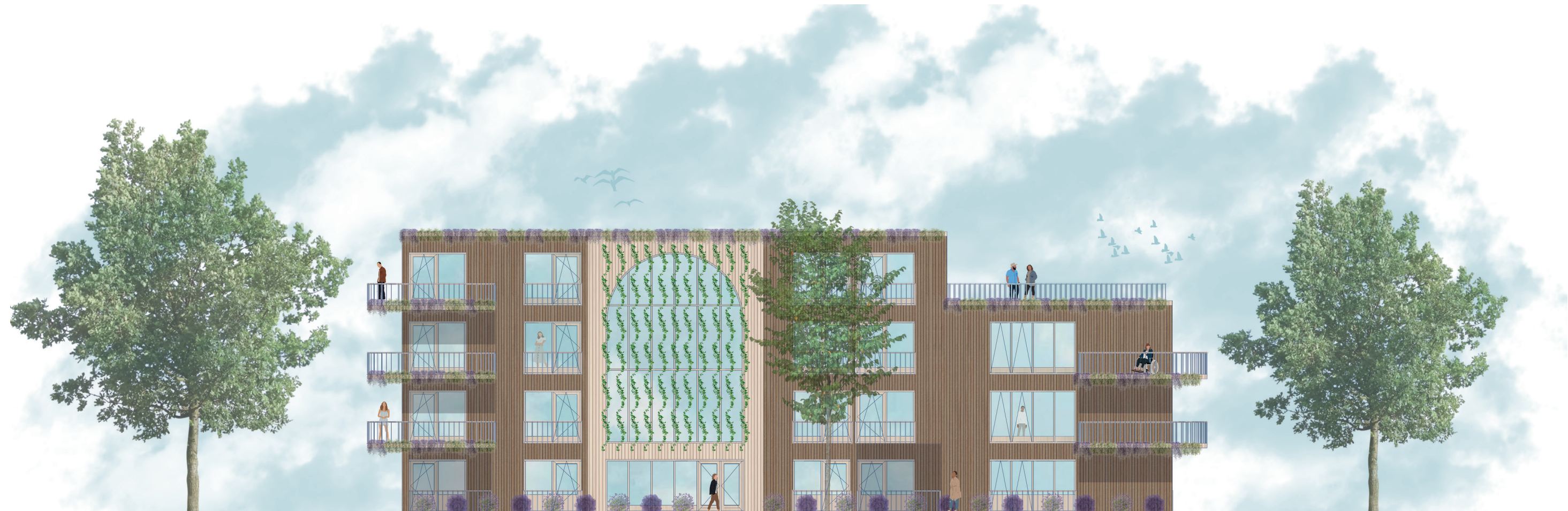
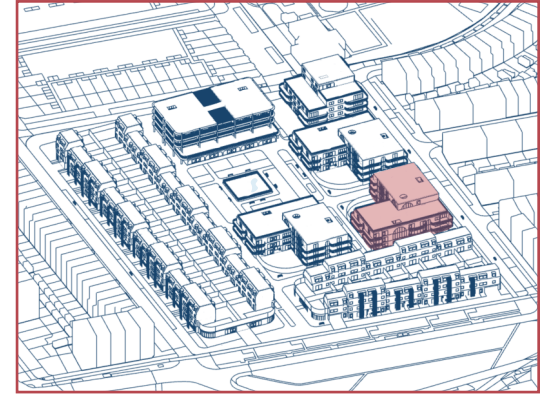
1:100 (scaled 60%)



North facade

FACADES

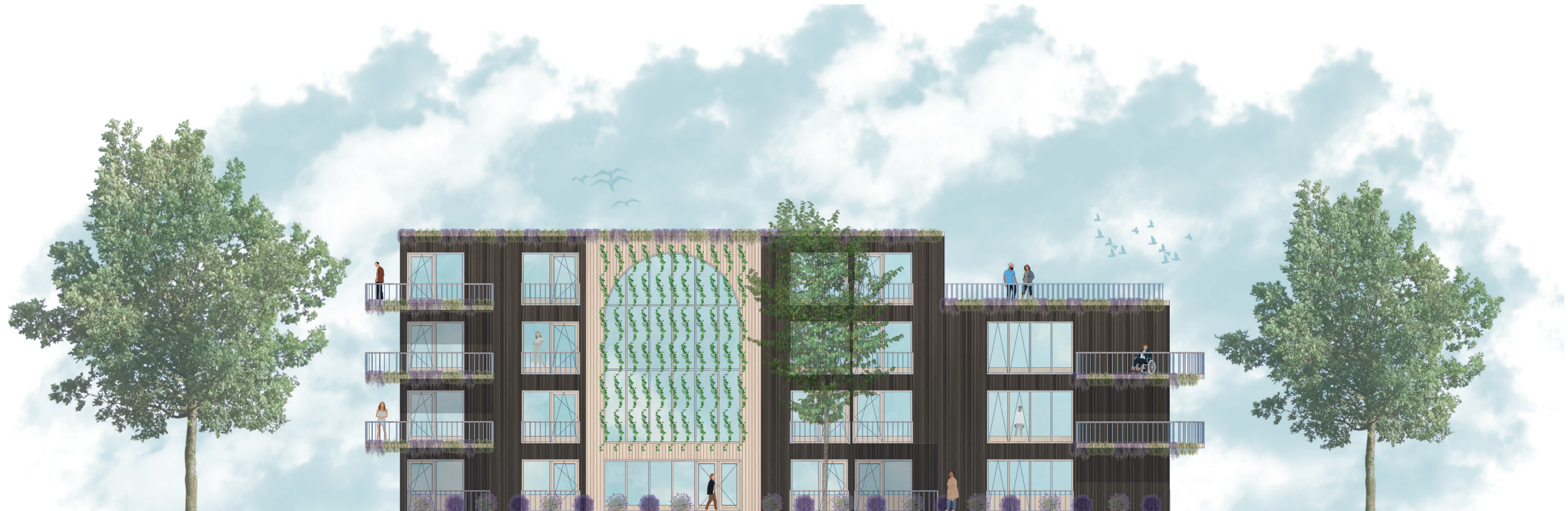
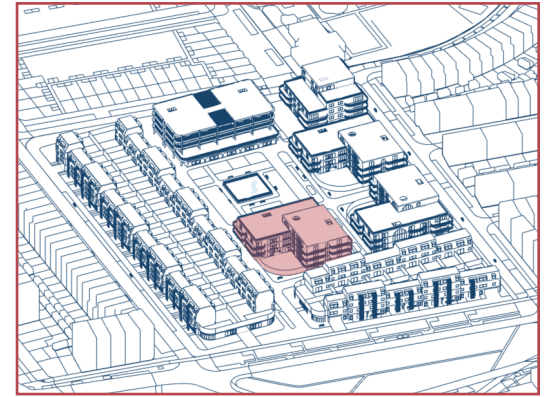
1:100 (scaled 60%)



North facade

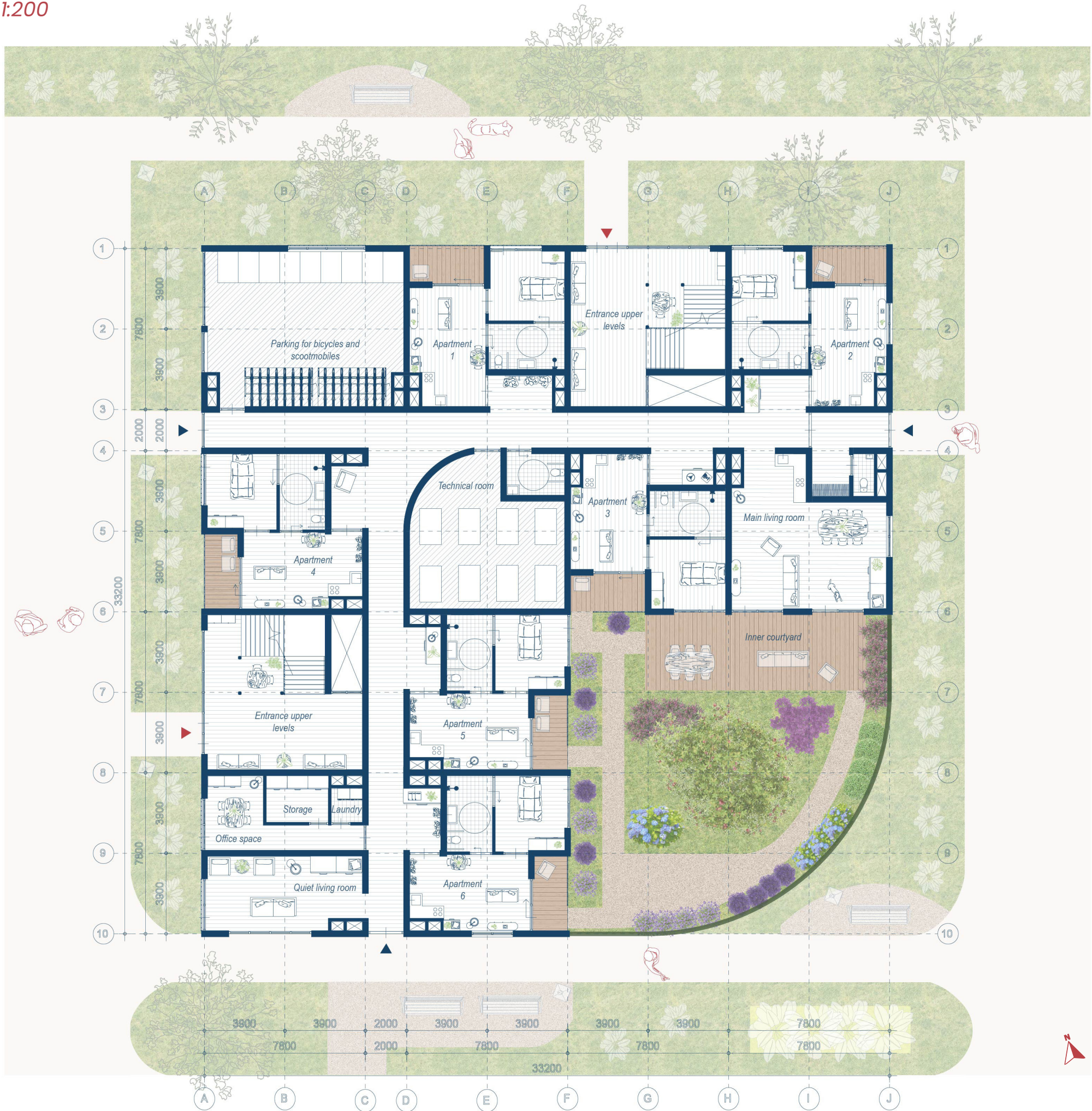
FACADES

1:100 (scaled 60%)





North facade

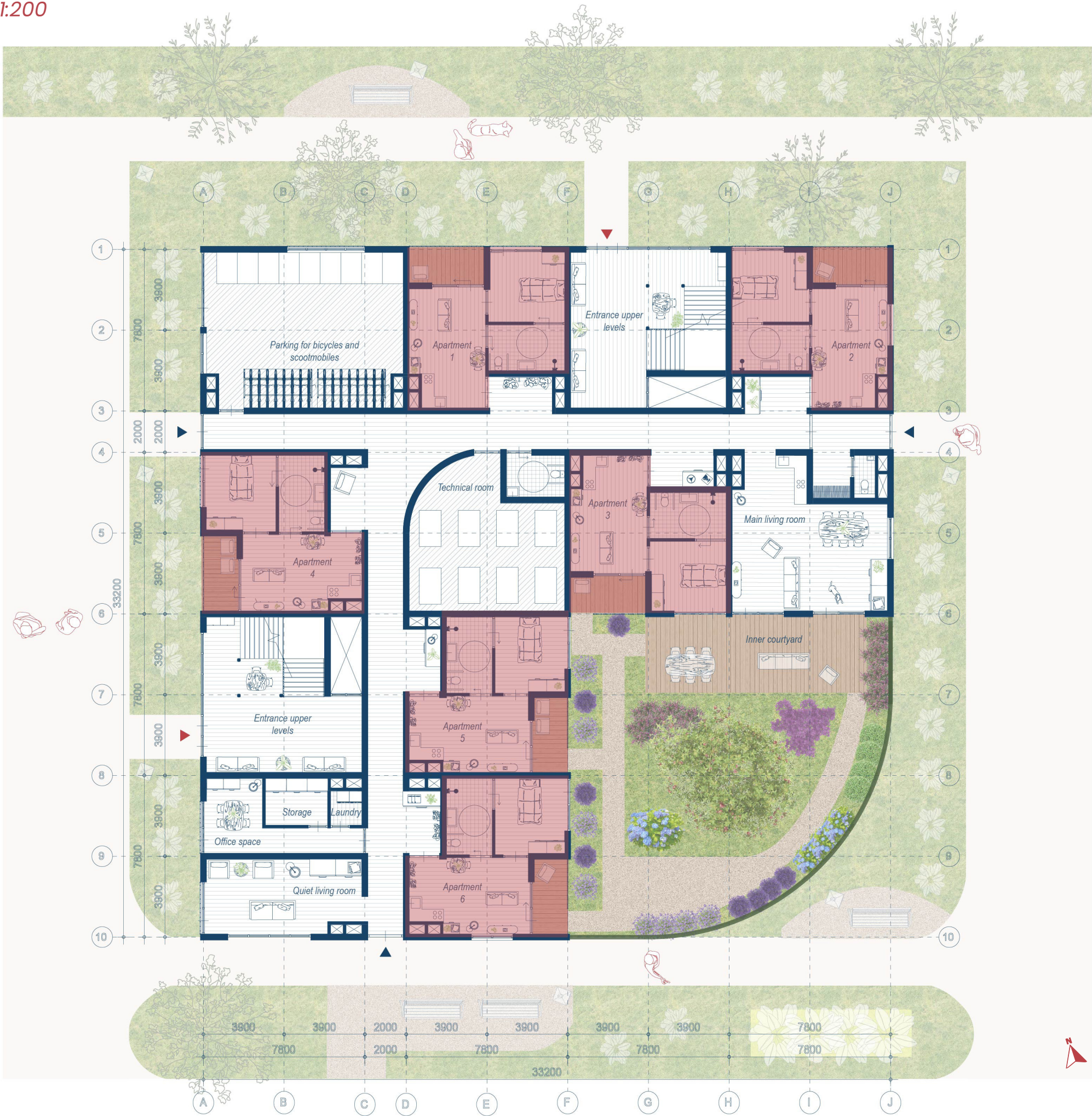
GROUND FLOOR
1:200





Legend

-  = Entrance dementia facility
-  = Entrance upper levels

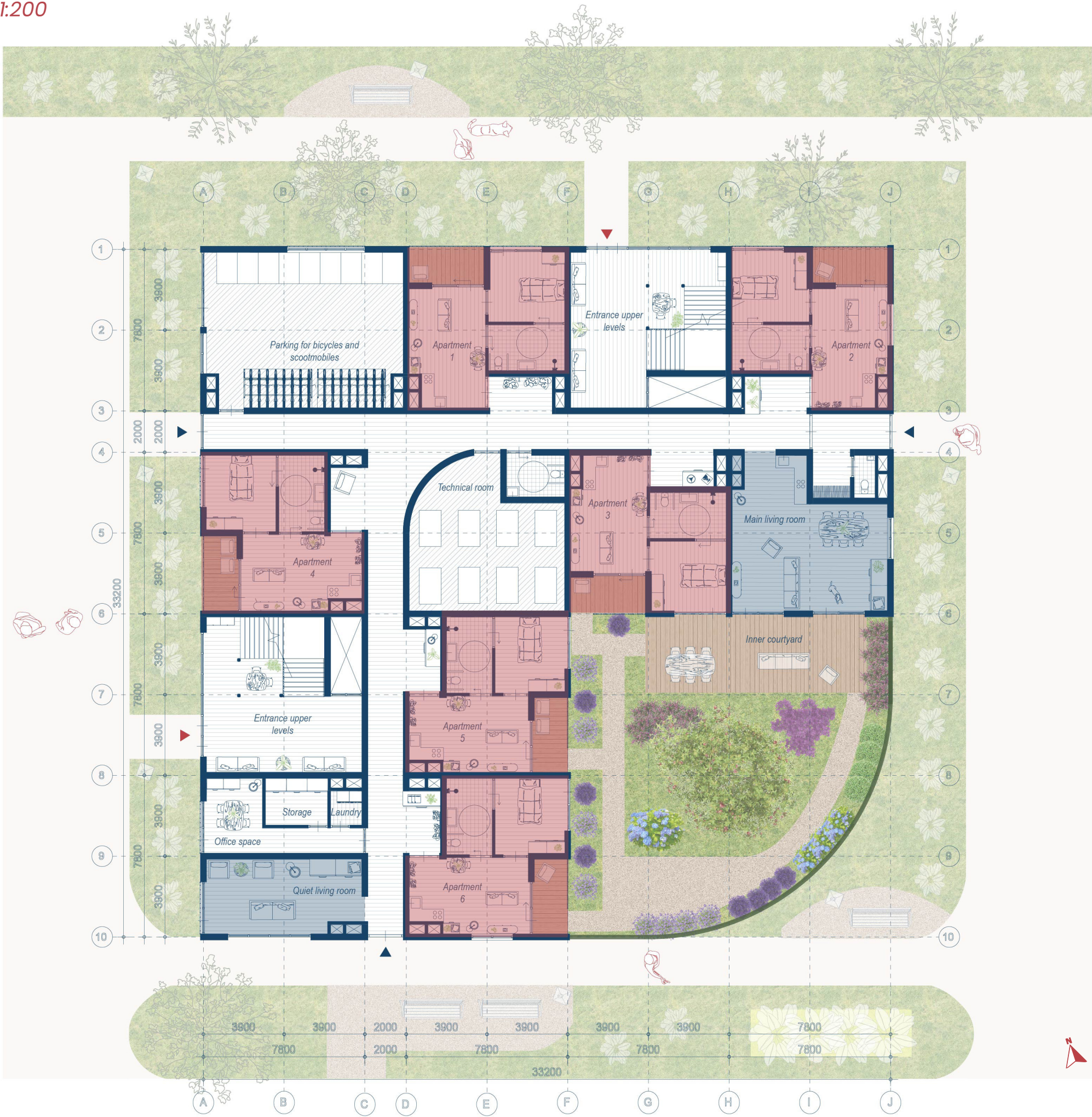
GROUND FLOOR
1:200





Legend

-  = Entrance dementia facility
-  = Entrance upper levels

GROUND FLOOR
1:200



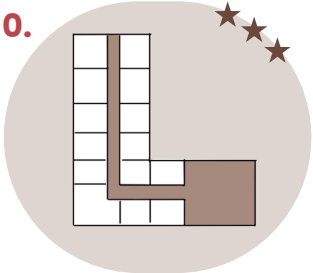
Legend

-  = Entrance dementia facility
-  = Entrance upper levels

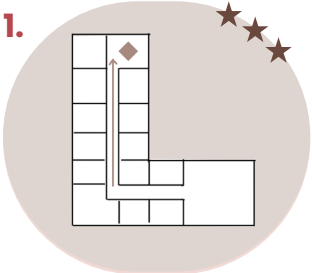
GROUND FLOOR
1:200



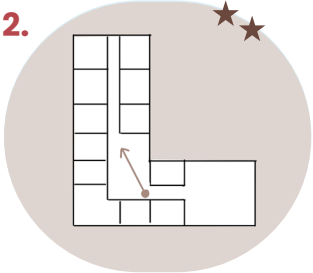
Used guidelines



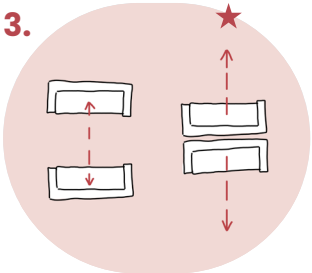
Design **simple floor plans**. Use straight, L or H shaped corridors for clear sightlines



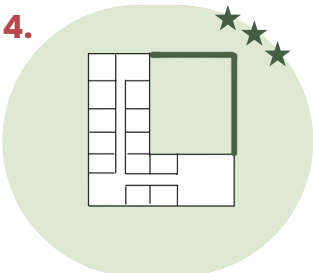
Avoid dead-ends. Place seating areas at the end of a corridor



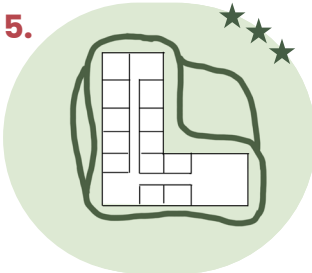
Create **gentle turns** in corridors to avoid sharp angles



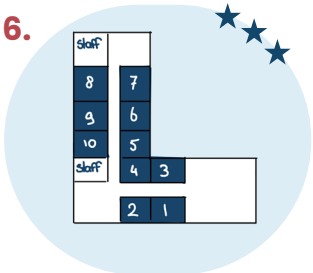
Use **sociopetal and sociofugal layouts** to promote privacy / social spaces



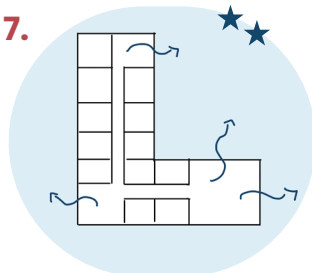
Design gardens with **unobtrusive barriers** to reduce feelings of confinement



Use **looped walking paths** through the inner courtyard



Create **small living units** to enhance comfort

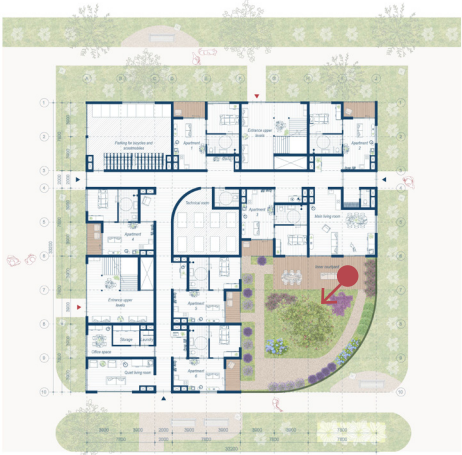


Ensure residents can **independently access safe (outdoor) spaces** like gardens

MAIN LIVING ROOM

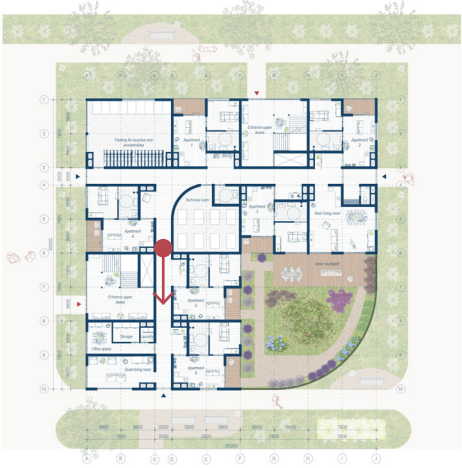


PRIVATE GARDEN



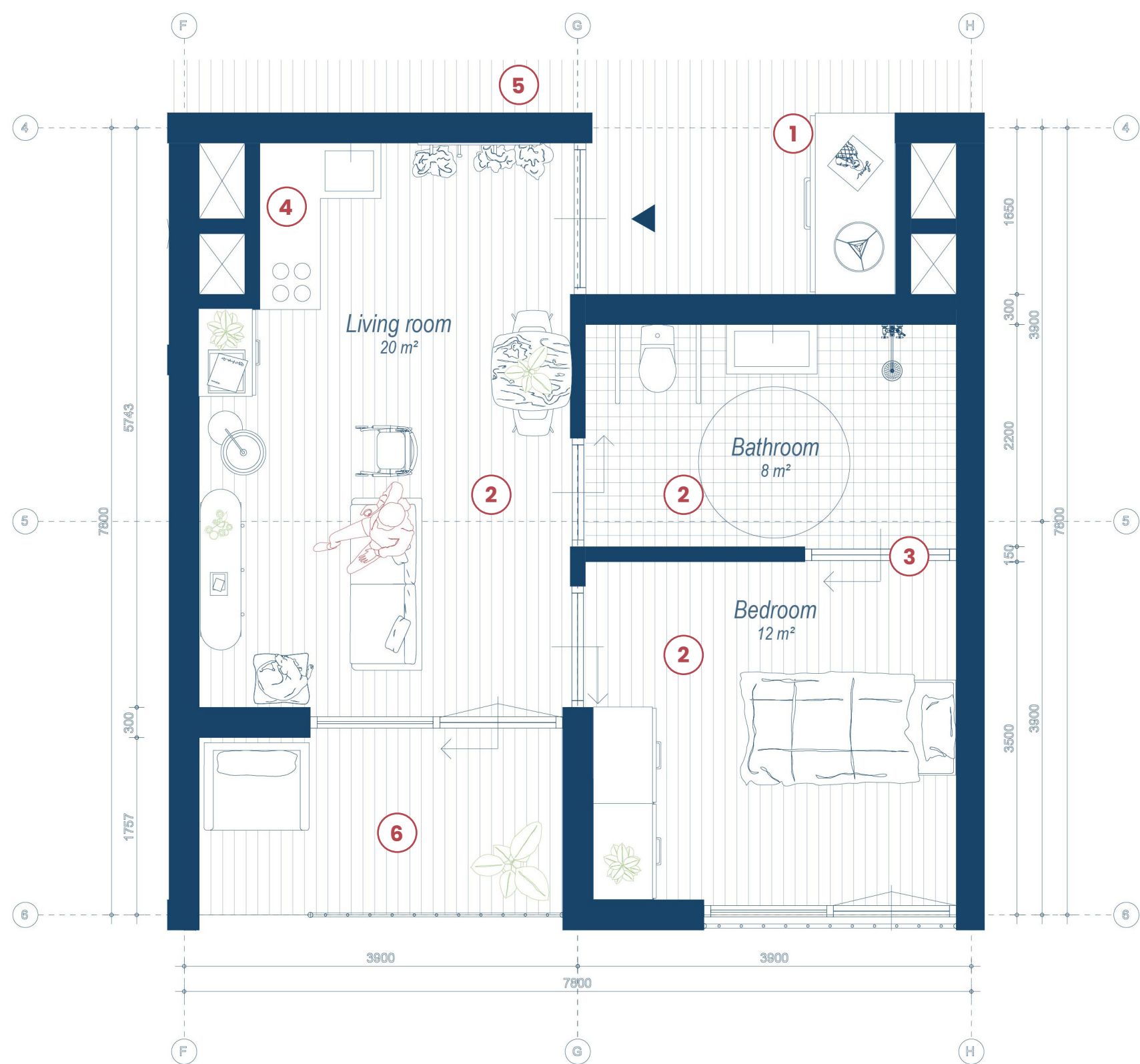
QUIET LIVING ROOM





ROOM FOR ELDERLY WITH DEMENTIA

1:50



40 m²

Used guidelines

1.

Incorporate **familiar items** near the room entrance
2.

Design personal rooms with **separate zones** to create a home-like atmosphere
3.

Design private bathrooms with a **direct line of sight** from the bedroom
4.

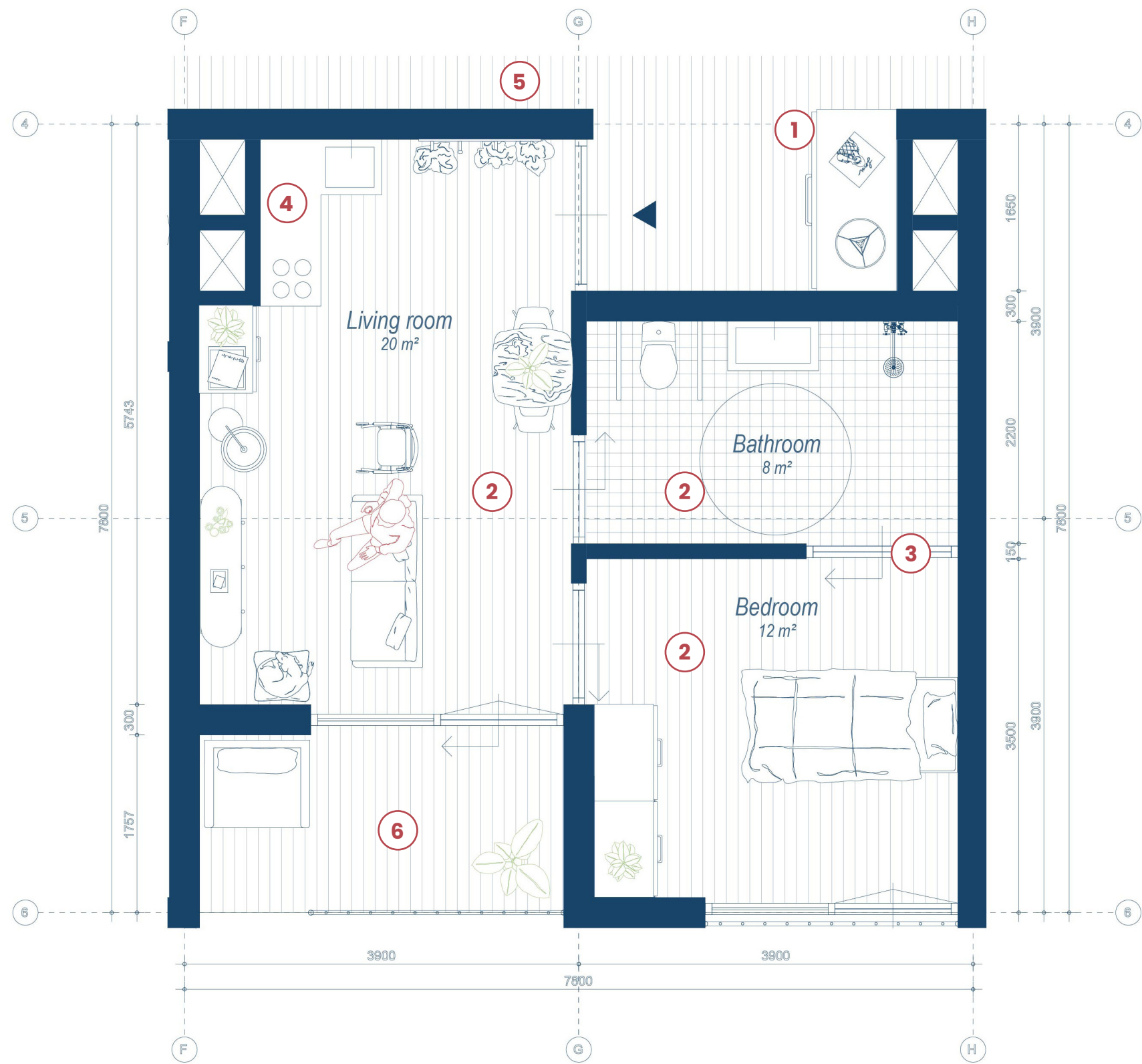
Include a **small kitchenette** with basic amenities
5.

Ensure **minimal contrast** between floor materials of private rooms and corridors
6.

Include **small terraces** where residents can place chairs

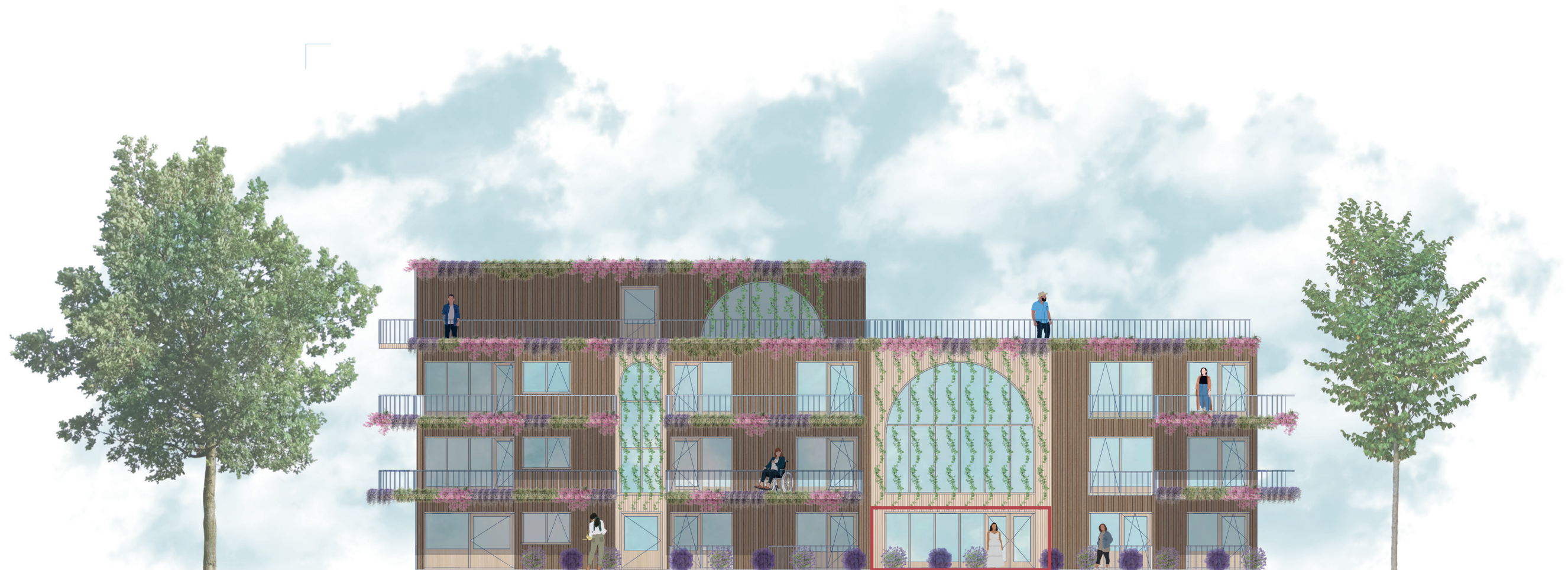
ROOM FOR ELDERLY WITH DEMENTIA

1:50

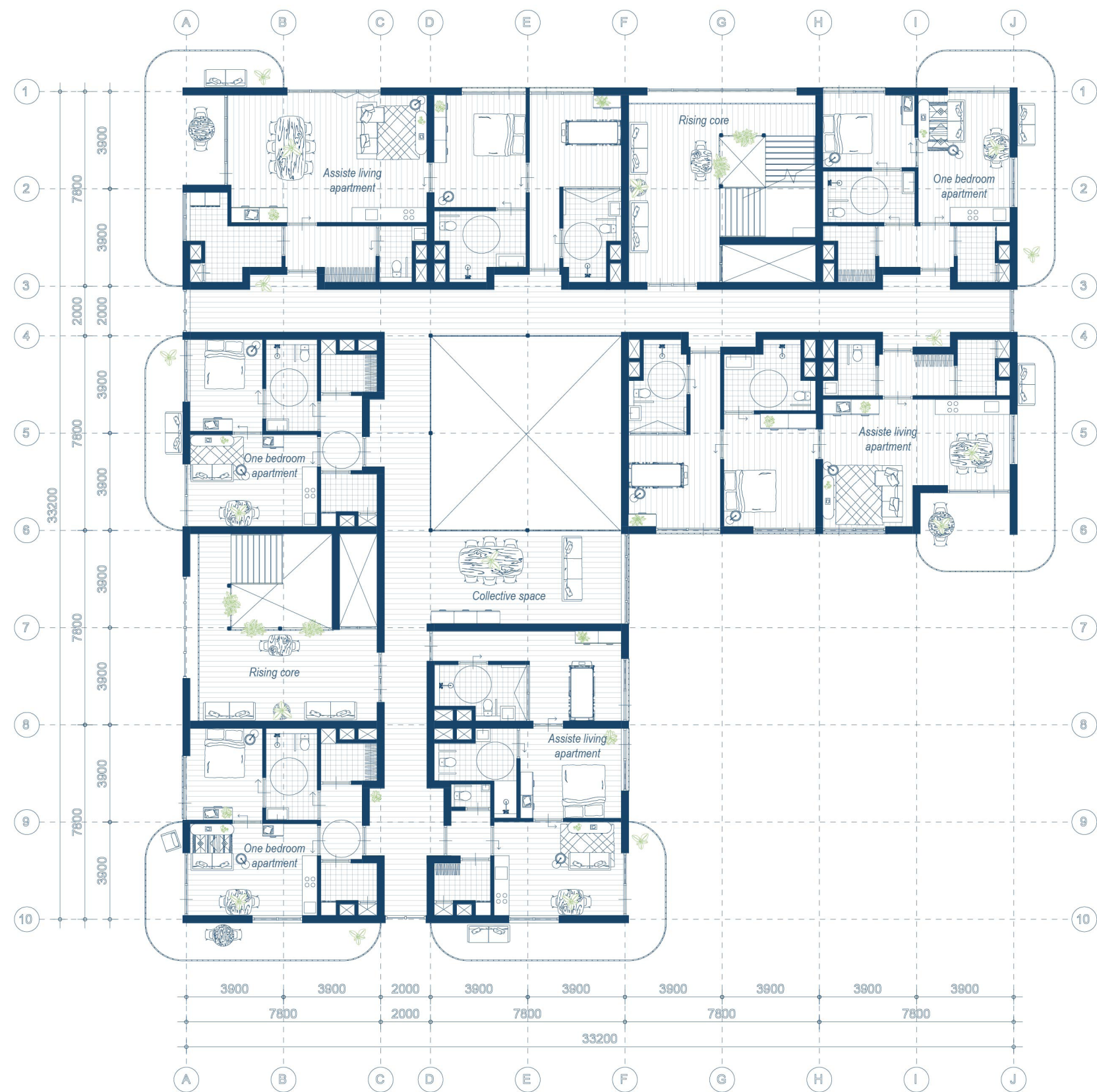


40 m²

WEST FACADE
1:100 (60% geschaald)



SECOND FLOOR
1:200



SECOND FLOOR
1:200



SECOND FLOOR
1:200





1:200



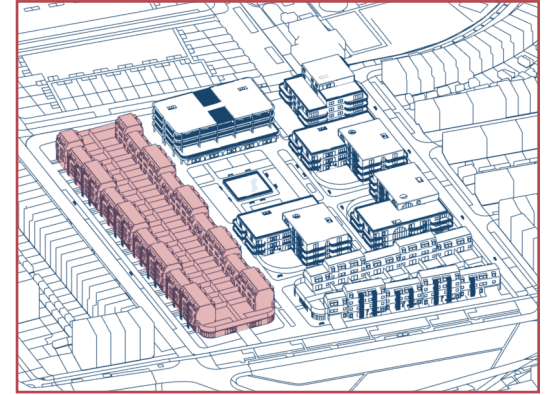
THIRD FLOOR
1:200



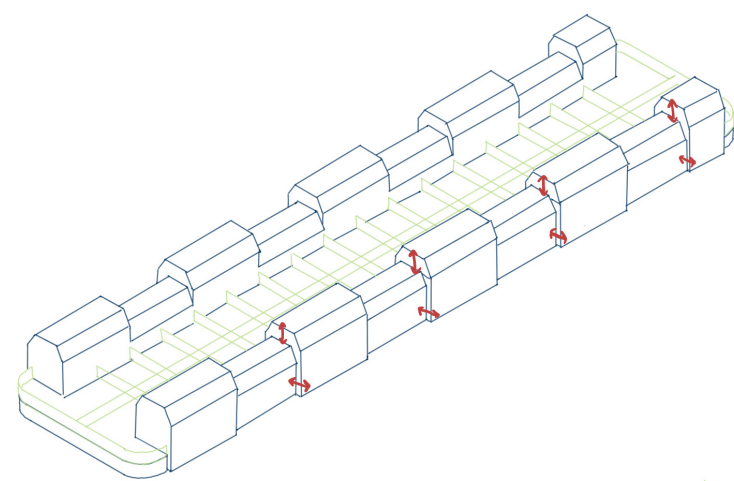


LET'S TAKE A WALK...

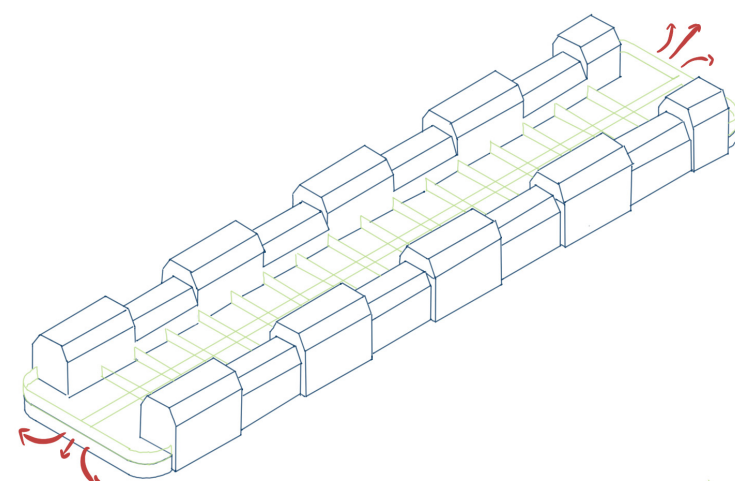
BUILDING C



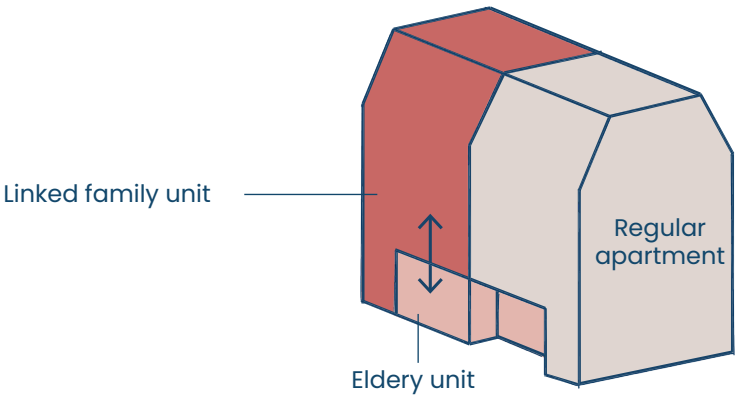
IMPORTANT DESIGN FEATURES



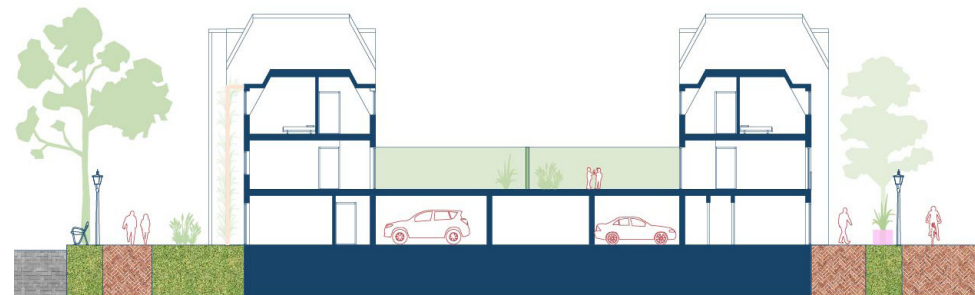
Variation in facade line



Activate corners

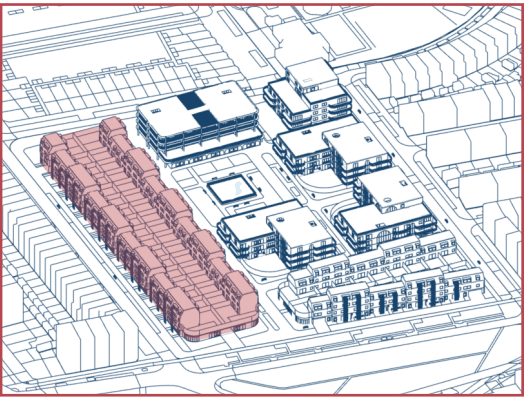


Ground floor elderly upper floor family

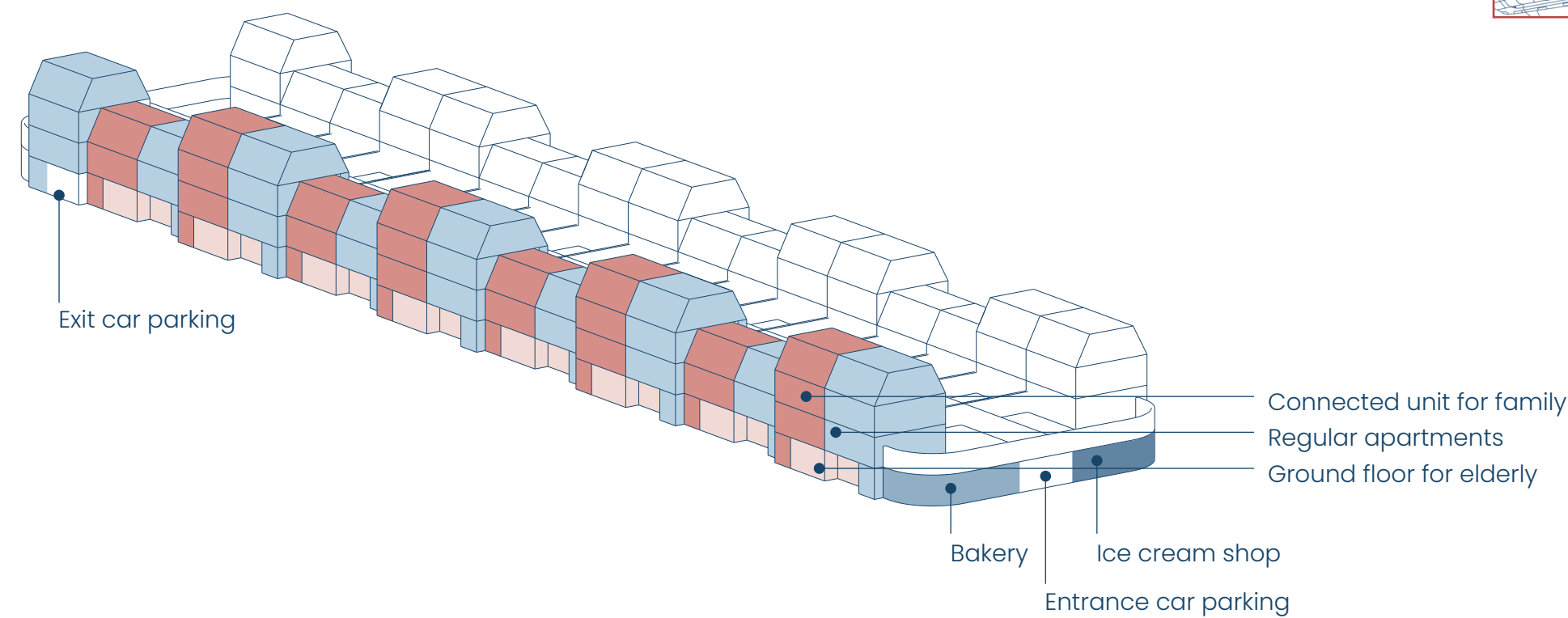


Parking lifted

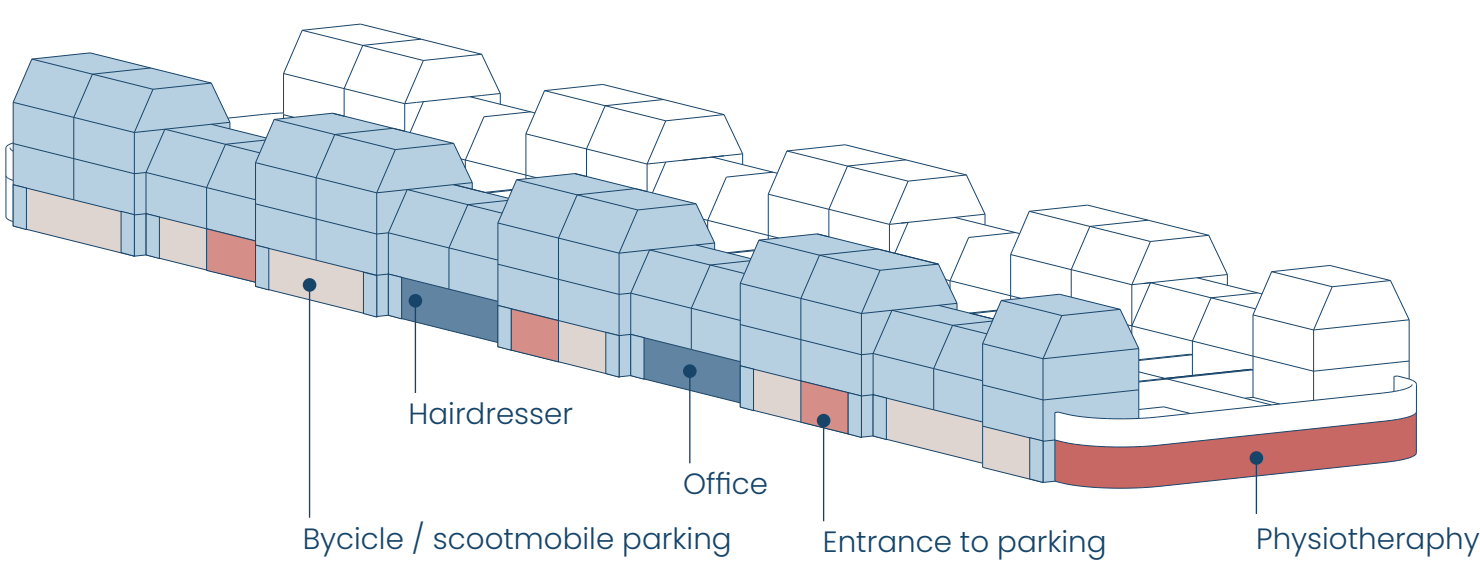
PROGRAM



South east side



North west side

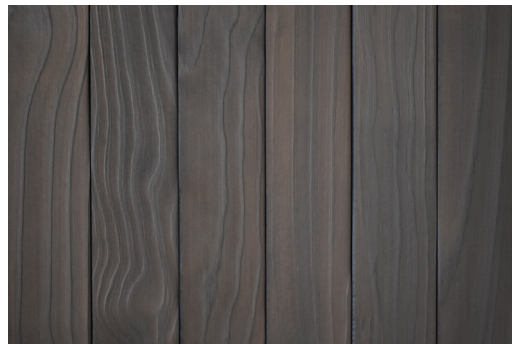




SOUTH FACADE

1:400

3 Shades of Accoya wood cladding



(Accoya, n.d.)



(Accoya, n.d.)



(Architextures, n.d.)

Eco-friendly roof tiles with 60% lower co2 emission



(Laumans, n.d.)



1:500



1:500



GROUND FLOOR

1:100



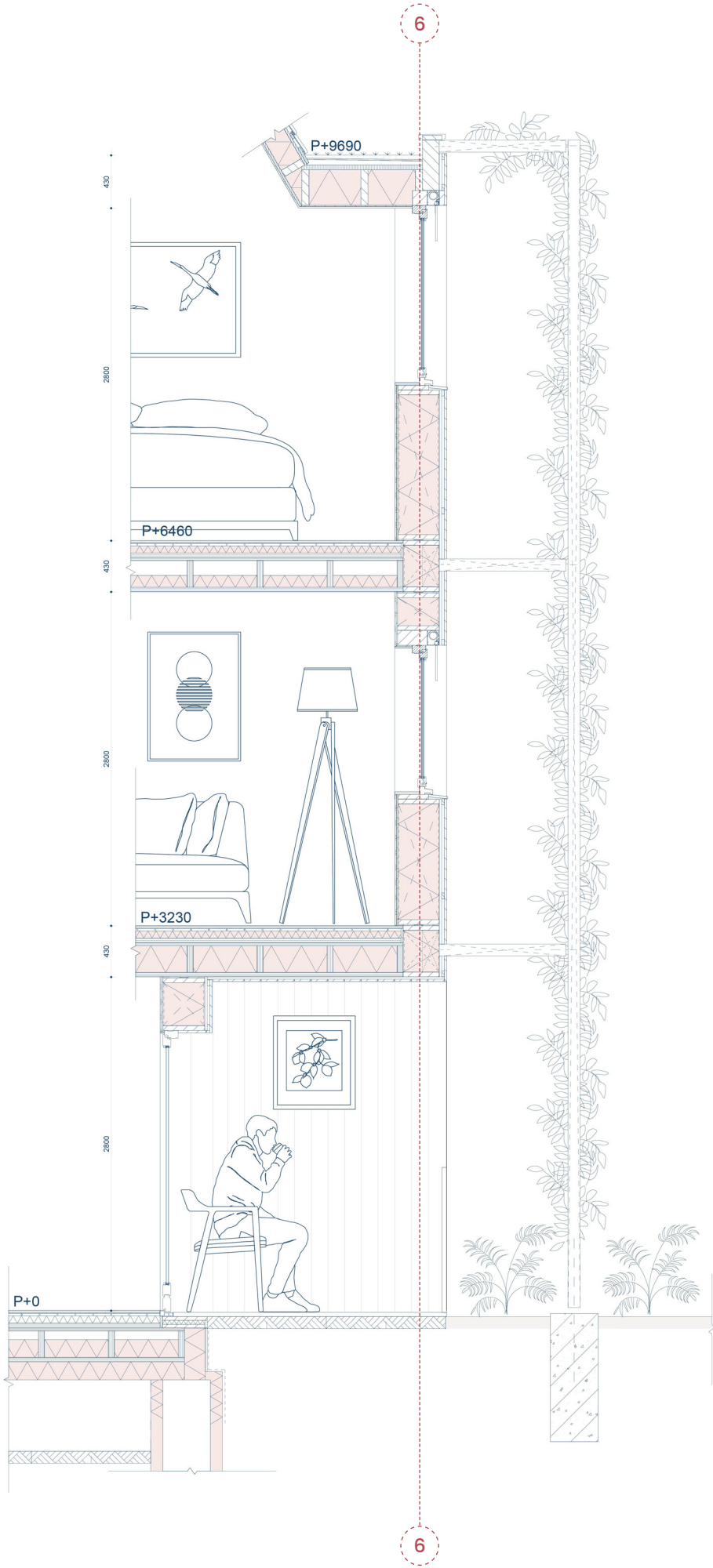
GROUND FLOOR
1:100



ENTRANCE ELDERLY UNIT



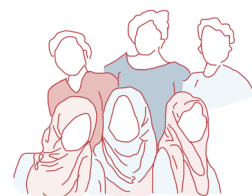
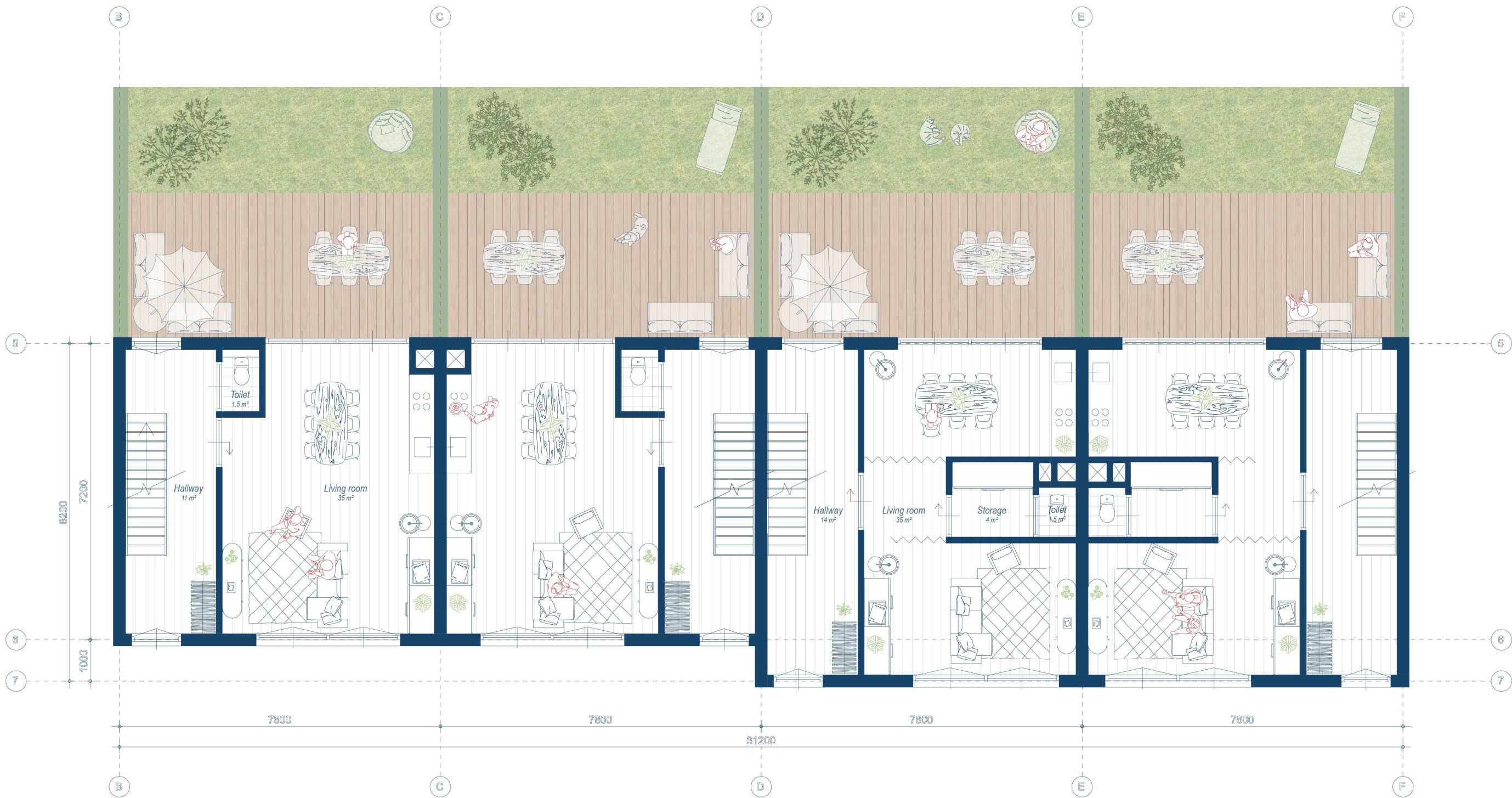
FRAGMENT VERTICAL
1:25 (scaled with 50%)



GROUND FLOOR
1:100



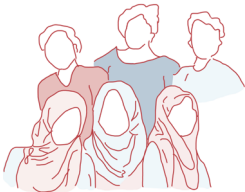
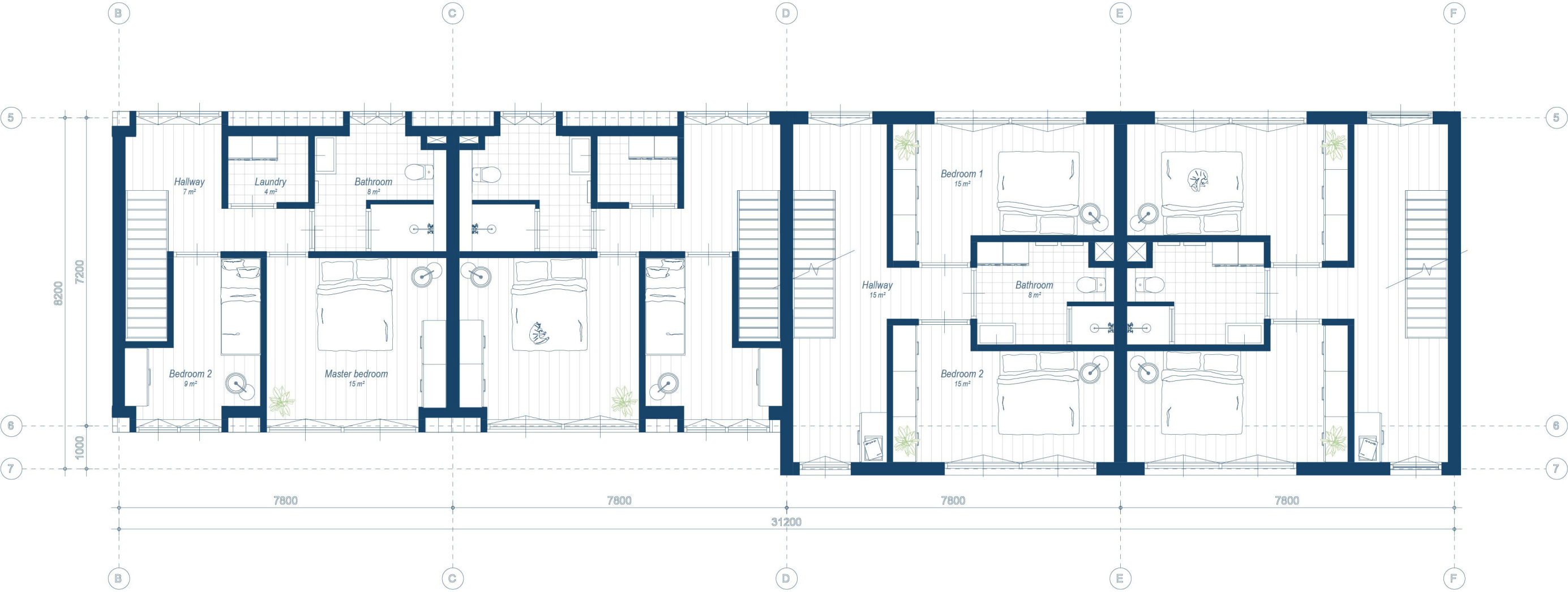
FIRST FLOOR
1:100



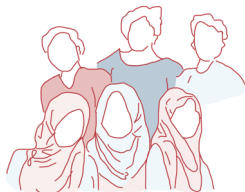
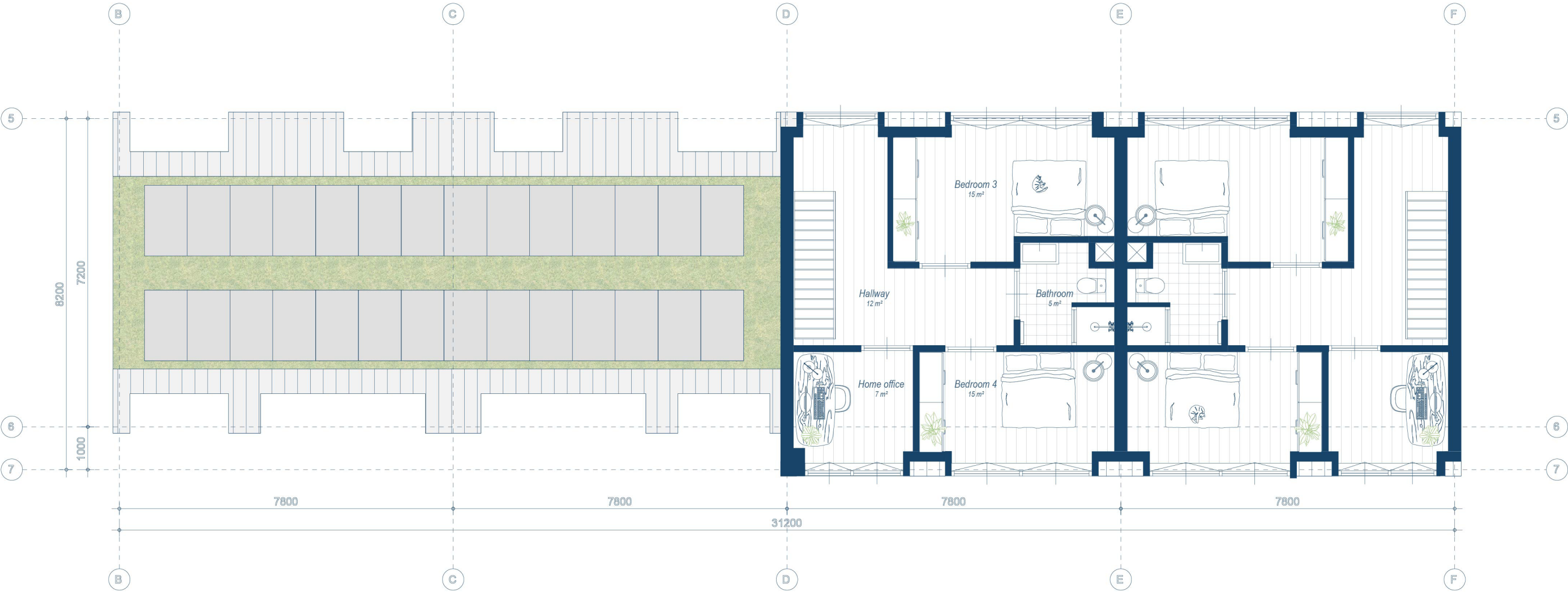
KITCHEN FAMILY UNIT



SECOND FLOOR
1:100



THIRD FLOOR
1:100



SUMMARIZED



Autonomy on the 3 different scales
(environment, building & room)



Quality of life

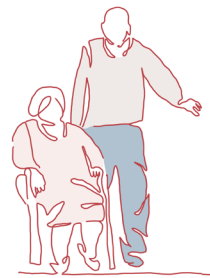


Social integration with the
neighborhood



Different solutions for different cultural
groups

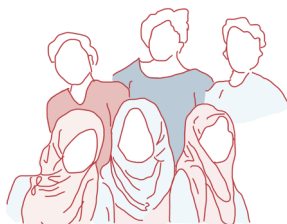
A resilient neighborhood where care and community grow together



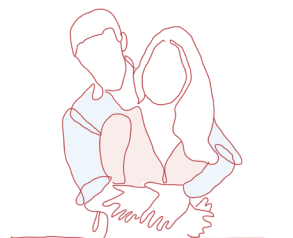
Couple Bakker



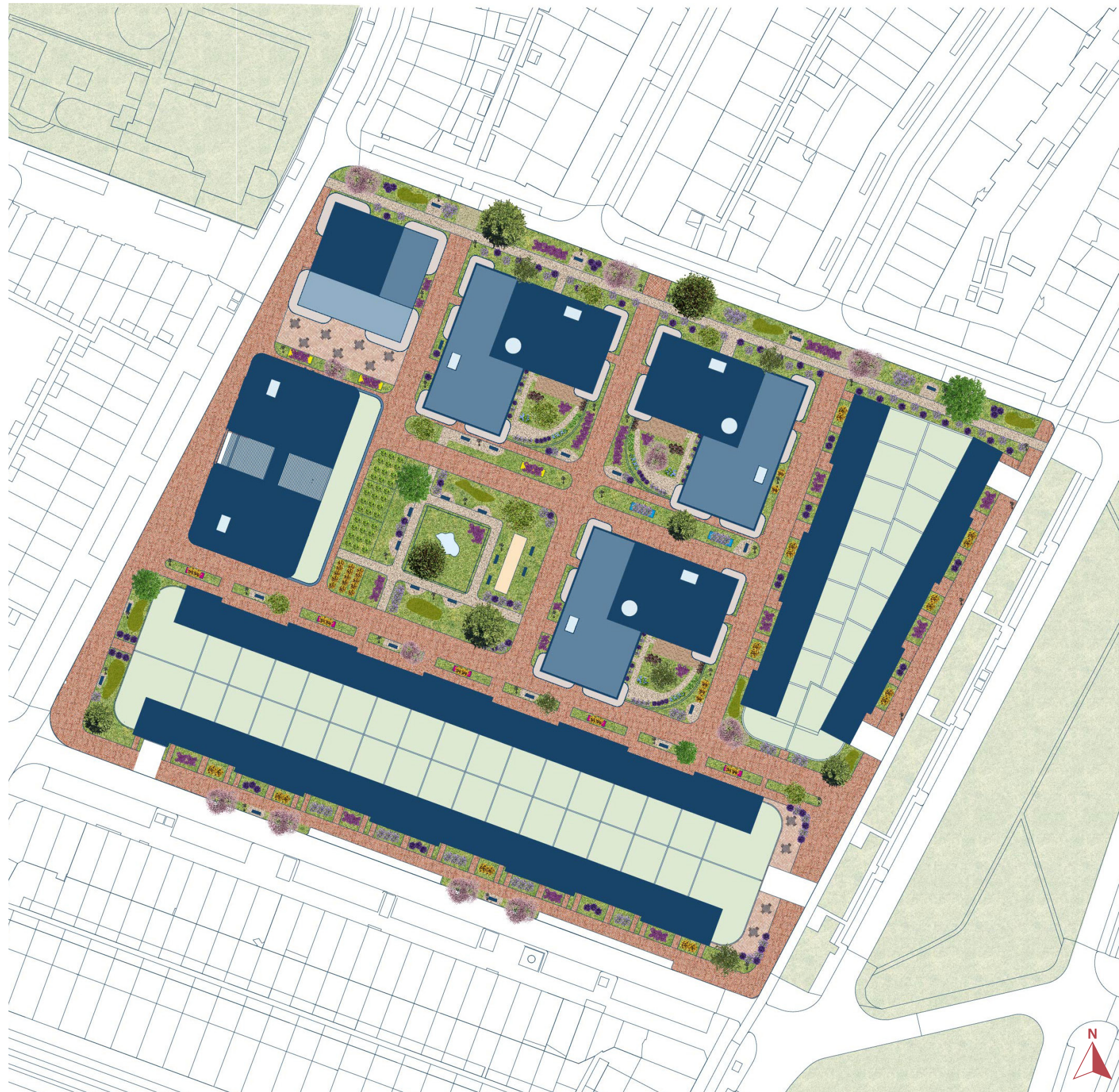
Couple de Vries



Family Yilmaz



Couple Kharraz



Miss Kowalska



Family Jensen



Student Rohan

Not just static care facilities, but an adaptive living environment for the future

The background image shows a modern, multi-story building with a green roof. The roof is covered in a dense layer of green moss or lichen. The building has balconies with wooden railings, and the walls are made of light-colored wood. The overall scene is a close-up of the building's facade, with the text overlaid in the center.

THANK YOU FOR LISTENING!

Are there any questions?