

PROJECT: NATURE'S SANCTUARY

DAHLBERG, WÄLI & CHEN

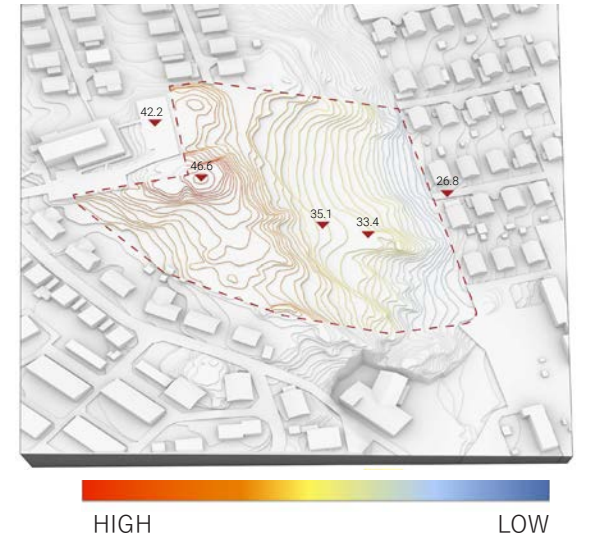
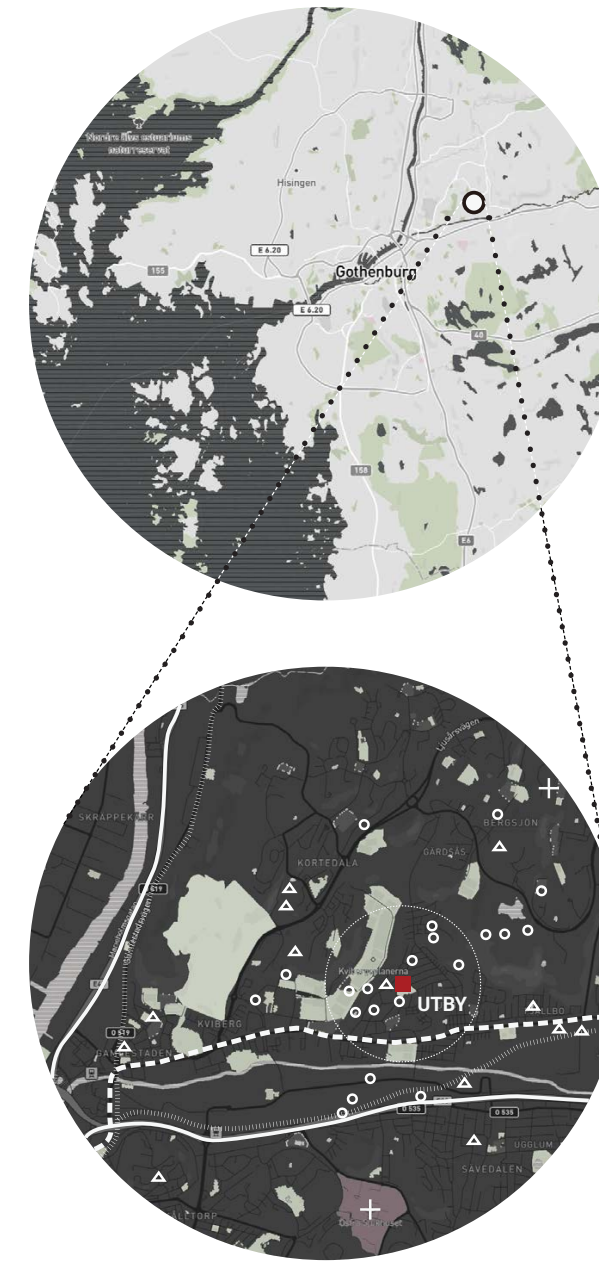
PROJECT BY GROUP 2: IDA DAHLBERG, KAROLINA WÄLI & BIAO CHEN

AUT164 FUTURE VISIONS FOR HEALTHCARE, HOUSING AND WORK 1: RESIDENTIAL HEALTHCARE - HOUSING FOR SENIORS

EXAMINER:
MORGAN ANDERSSON, ADJ. PROFESSOR, PHD/TD, ARCHITECT SAR/MSA

TUTOR:
JENS AXELSSON, ARCHITECT SAR/MSA, WHITE ARCHITECTS

CHALMERS UNIVERSITY OF TECHNOLOGY
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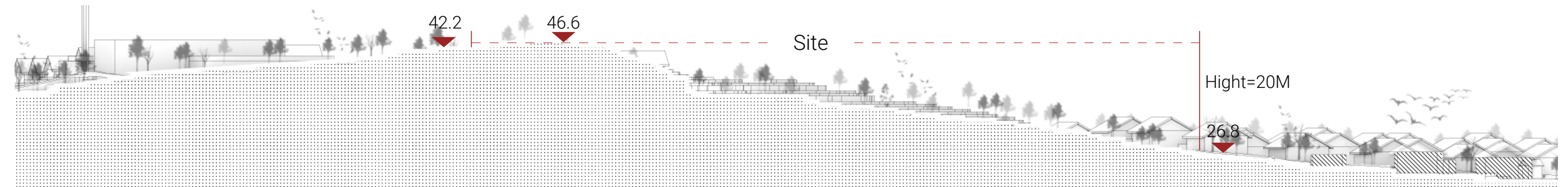


This project is located in the villa suburb Utby, northeast of Gothenburg.

The site consists of 25 000 square meters of unspoiled nature and closely connected with residential buildings, a pre-school and a church. There is however few shopping opportunities, gyms or other recreational facilities nearby.

The following pages will present a proposal for a dementia village. The site is suitable for residential healthcare due to the closeness to a bigger hospital and the quiet yet approachable location close to, but not facing, a main road.

The village concept will manifest as divers outdoor spaces and several urban services, for the residents but also the neighbourhood.

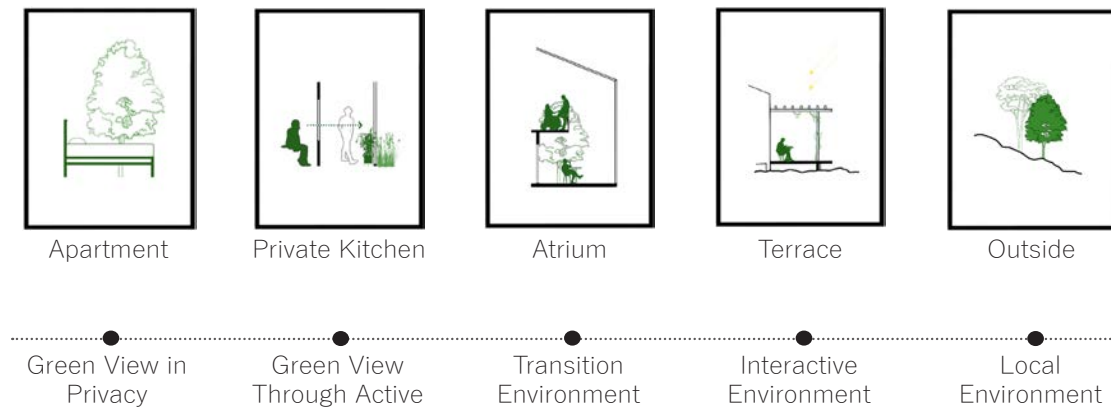


SITE LOCATION & ANALYSIS

For a healthy and engaging dementia village and workplace, the project will be designed according to relevant resurge findings in the field of geriatric and somatic aging and in line with the clients, Göteborgs Stads, framework for designing an assisted living facility.

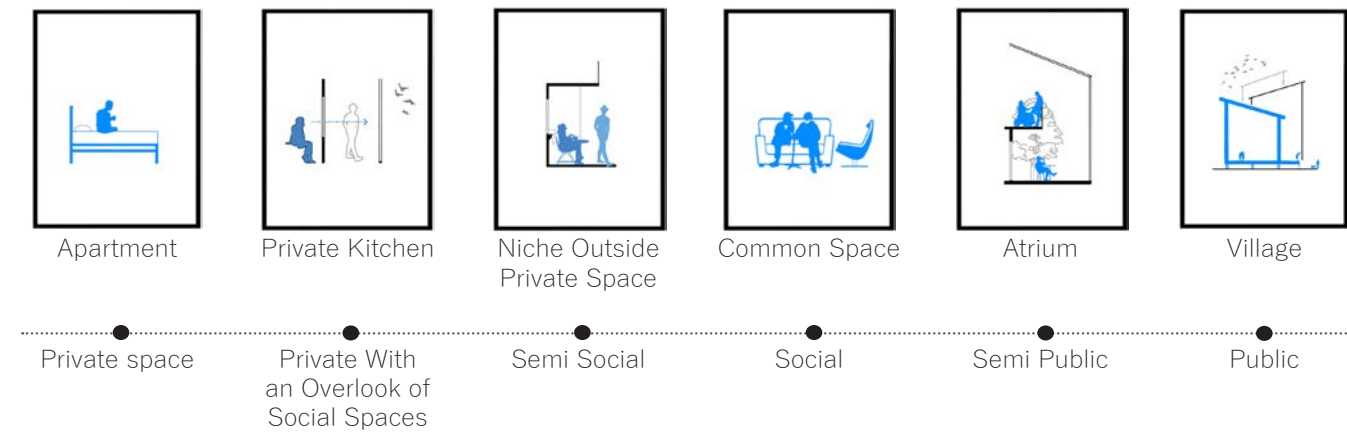
The project will therefore include access to outside spaces and the outside world, cognitive support (corridor design), normalness, safety, physical support, comfort, privacy, personalisation, social spaces, choice and control for residents and a connection to the community.

The main concepts for this project will however be connections to the nature and divers social interactions based on choice and preferences.



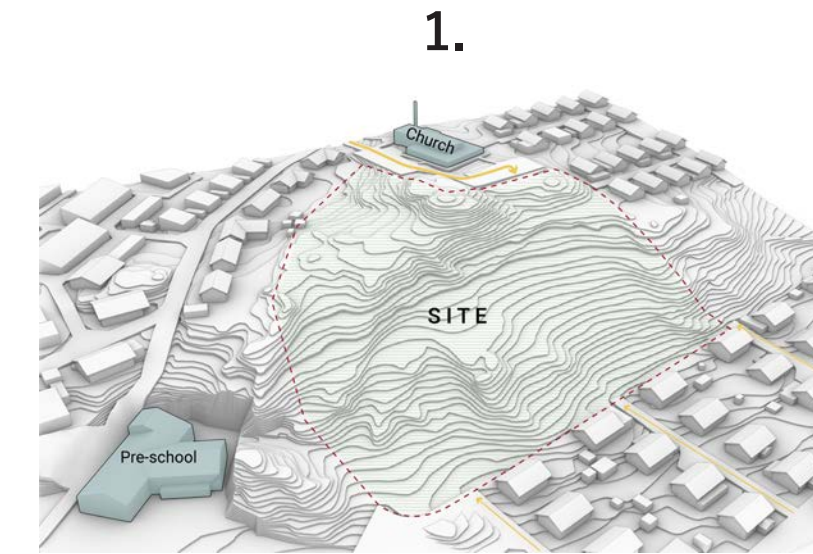
NATURE CONCEPT

The aim is to keep the nature as a constant part of the living environment, thou expressed in different manners so that it can be experienced in privacy, socially or interactively through every season.

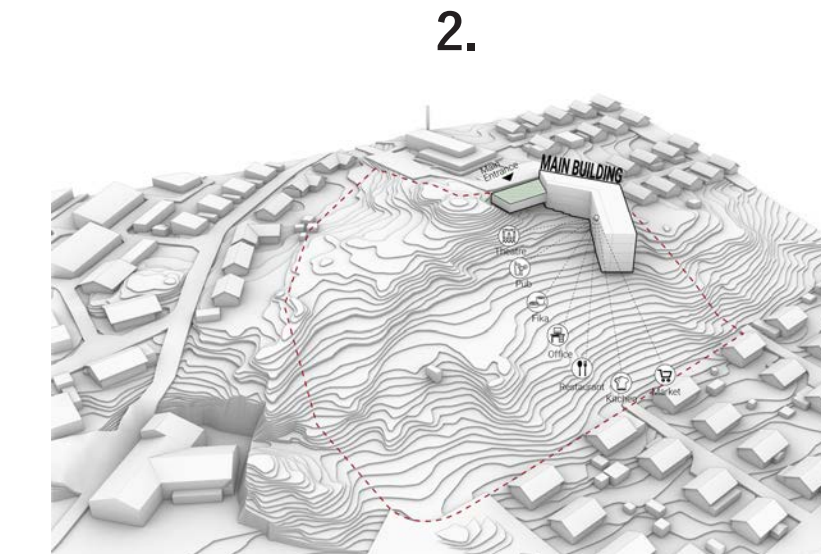


SOCIAL CONCEPT

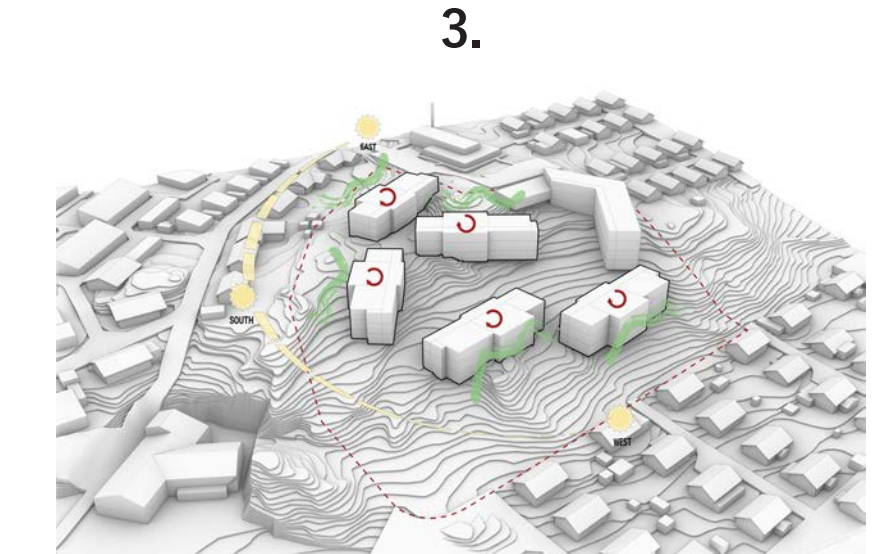
To gain a village feeling and enhance the experience of freedom for the residents in the project, there will be multiple spaces for different levels and types of social connections.



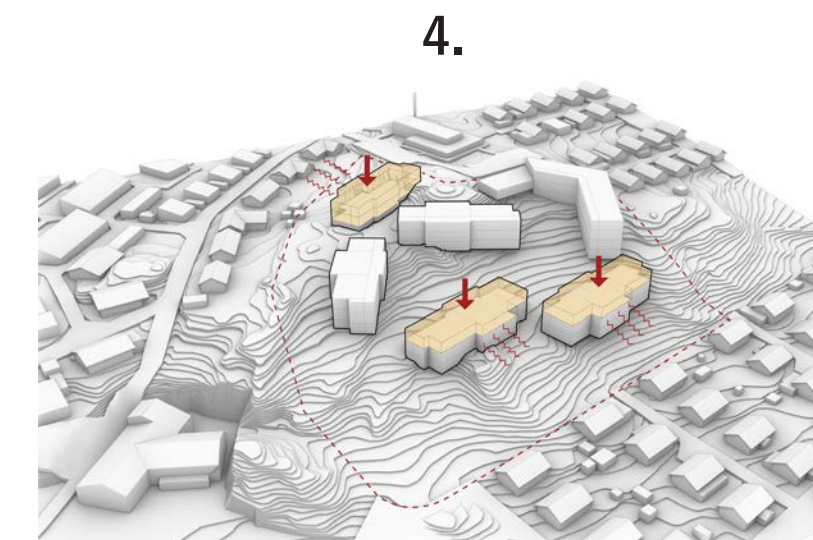
The project site is a fairly natural, small forest located amongst small-scale residential buildings, a church and a pre-school. The site is very sloped and hard to access for people with walking disabilities.



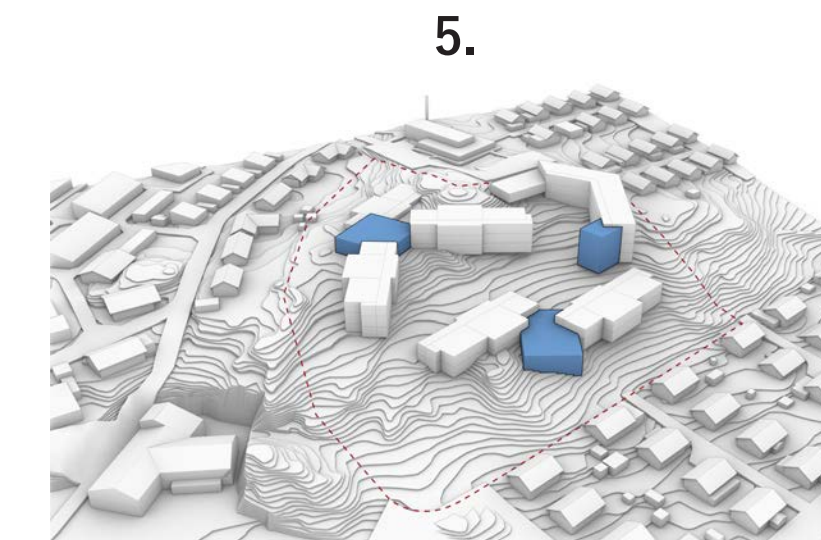
A logical main entry point to the site is found by the church. This is the only road with dimensions suitable for delivery vehicles in the adjacent neighbourhood and already a road with bigger flows. Here we situate the dementia villages main building with public functions making it a social space which opens up for interaction in the community.



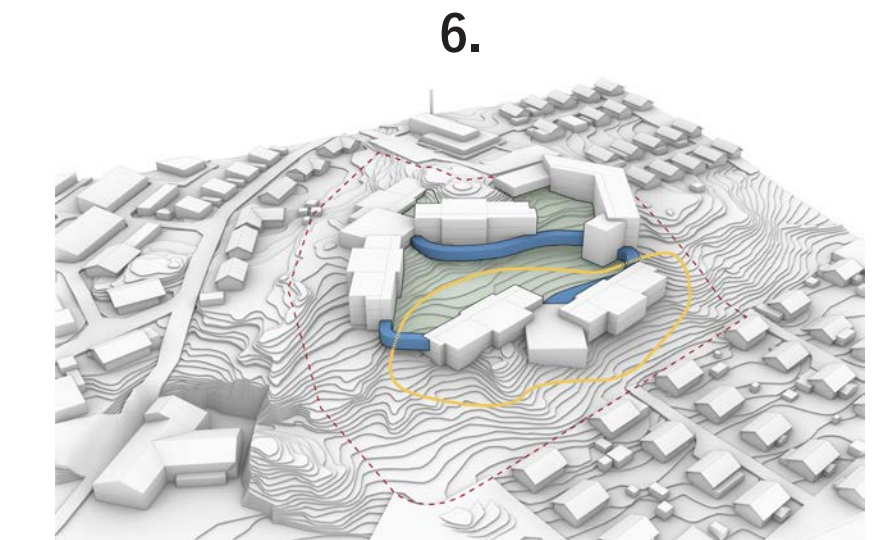
Free-standing units are spread out on the site to make the buildings part of the small forest and the village less dense. To preserve the terrain, the units are located on stilts and placed to follow the topography. Then, the units are rotated to gain good daylight conditions.



The building height varies on the site. This is to follow the curve of the hill and to match the scale of the neighbouring buildings visually. The variation is also made to improve the views from the dementia village and to ensure good daylight conditions on the site and for the neighbourhood.

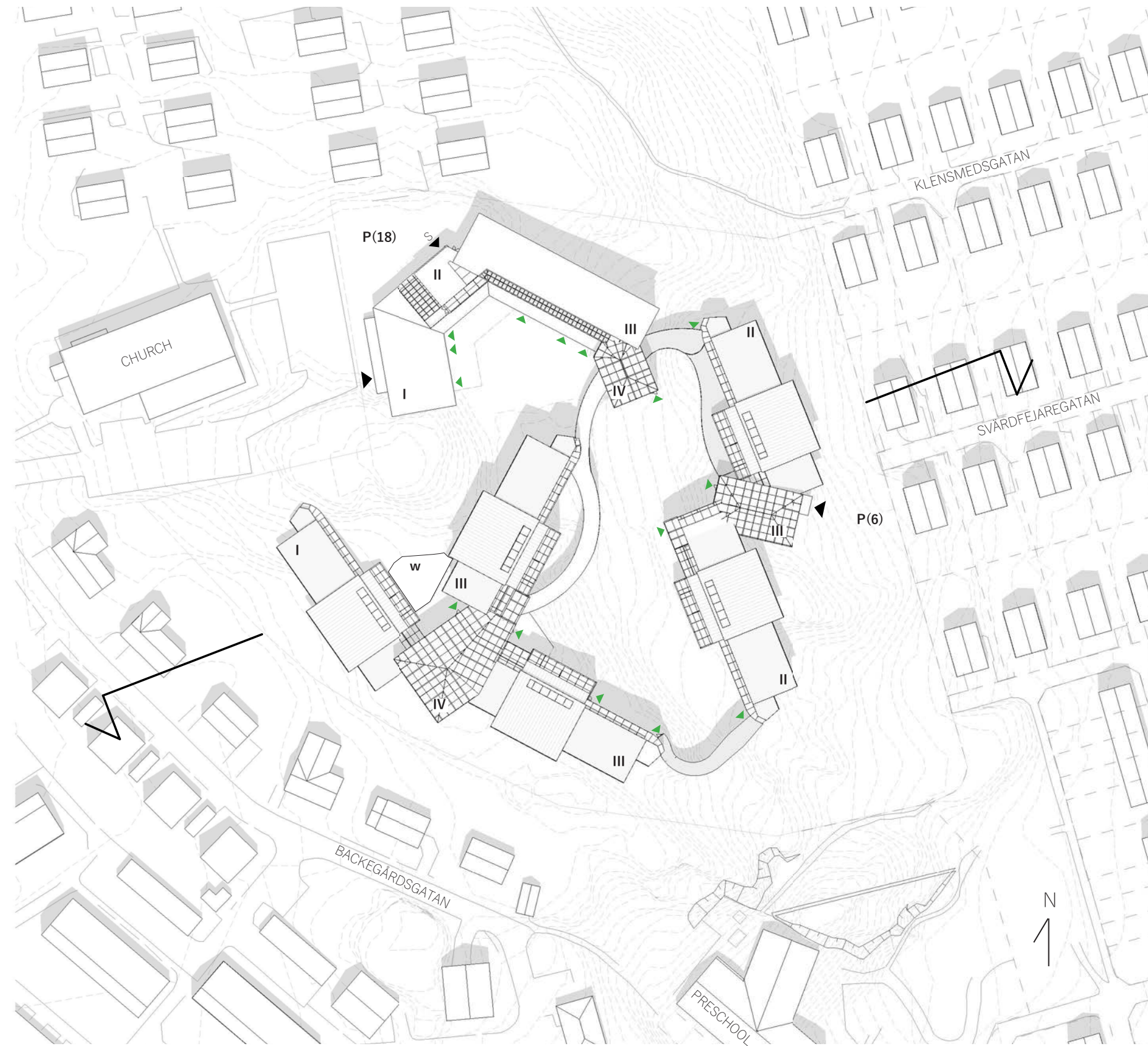


Each unit is connected to a large common atrium, a winter garden. This space holds the vertical communication to the units and works as a step in the sequences from private to public and from indoor to outdoor.



Neutral passages connects the winter gardens to the main building, allowing people to access every part of the facility without passing through a unit. With these neutral corridors, a circulation path is made, making the whole village part of a bigger loop. As the neutral communications are formed as bridges, elevated from the ground, a neutral walking route is created outside as well.

VOLUME MANAGEMENT



SITE PLAN

1:1200

- P** **PARKING**
Total of 26 spots
- ▶** **ENTRANCE**
Head entrance to west (by church)

Secondary entrance from Svärdfjäregatan.
- S▶** **STAFF ENTRANCE**
For material and staff flow
- ▶** **GARDEN ACCESS**
Entrance to garden
- II** **NUMBER OF STORIES**
- w** **WATER**
Natural pool for biodiversity and recreation

The volume management described on the previous page results in this site plan. The units are rotated with the short end towards the south and spread out to engage the whole site and enclose a bigger organically shaped central courtyard with good sun conditions.

The U-shaped building, north of the site, is named the main building and contains public functions for the dementia village and the neighbourhood, staff areas, a unit and technical spaces.

The five buildings spread out to the south of the site is unit-buildings, giving the project a total of 11 units, á 8 apartments, including the unit in the main building.

The unit-buildings are designed orthogonally and connected to bigger winter gardens, creating common squares shared between units. These squares can be reached by the neutral organically shaped corridors on the site.

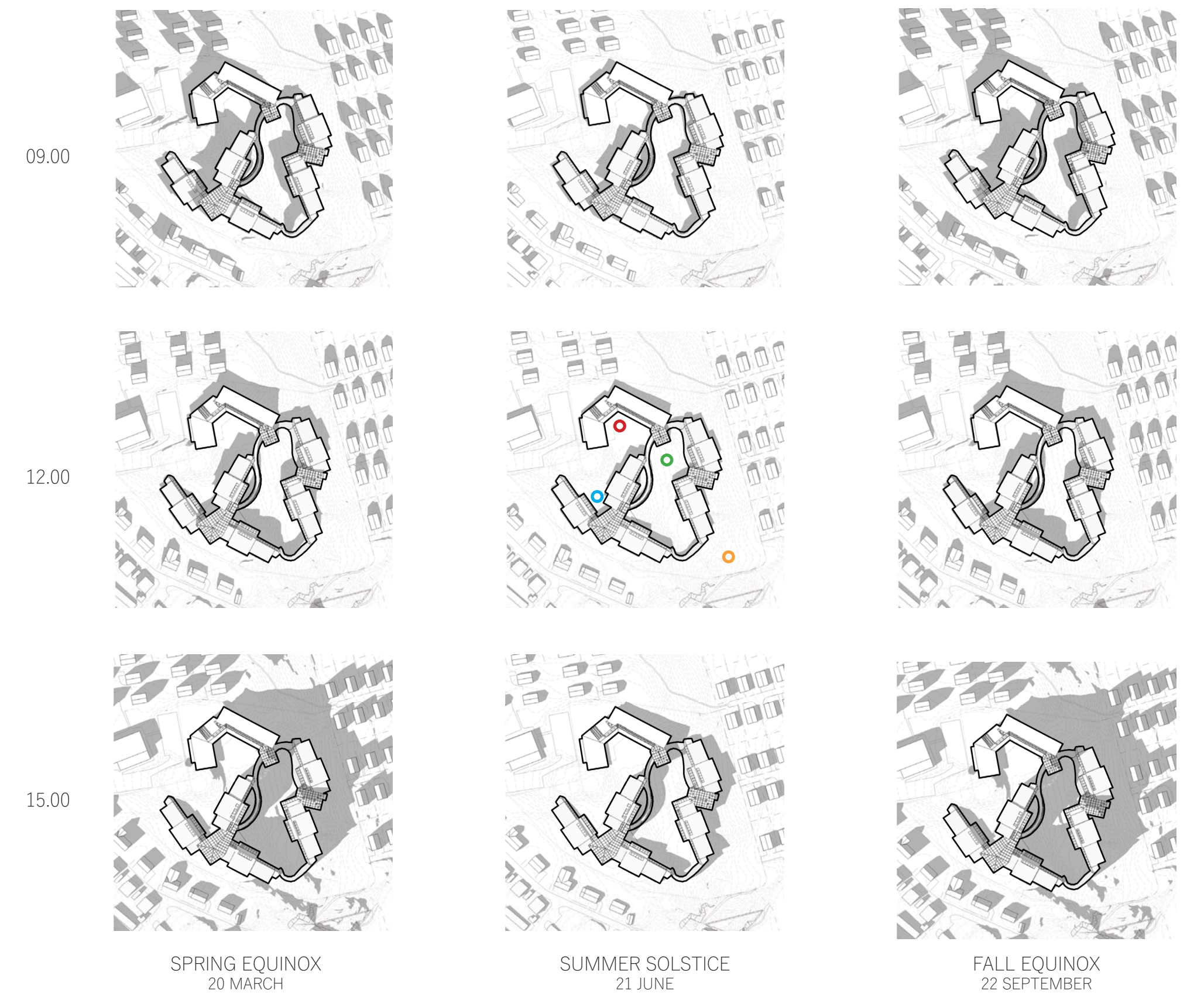
The units are designed to face the common courtyard with their common rooms and locate private rooms facing outwards.

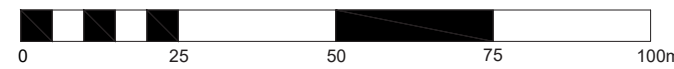
SHADOW STUDIES

The volumes and the buildings locations on the site were continuously studied through out the design phase of the project to ensure good sunlight and shadow conditions within the dementia village and the connecting neighbourhood.

The aim was to create multiple spaces on the site with divers conditions, ranging from hot to cool, light to dark and open to enclosed.

- The square by the U-shaped main building, north of the site, has light and warm weather conditions through out all the seasons and is therefore suitable for some public and common functions.
- The north end of the enclosed courtyard has varied sun conditions but mostly light and protected from winds. This area is therefore a good farming and gardening space.
- Between the two unit buildings creating a V-shape, west of the site, is the most private and calm space of the site. This area has some shade through out all the seasons and is therefore suitable for a cool and enclosing space. Here we place a natural pool. The pool can be accessed for swimming and recreation but is also a space for biodiversity.
- We have also located a space south of the site with constant good light conditions. Here we relocate the local allotment gardens for the neighbourhood.





GARDENPLAN

1:1200

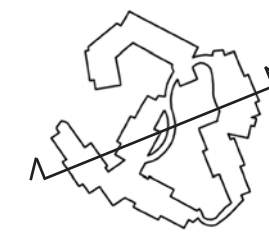
The aim is to keep the natural nature as much as possible on the site, but make additions to create diversity amongst spaces and strengthen biodiversity.

- ① The main access point into the dementia village is located north east of the site, by the church. This is also the access point for material flows.
- ② This is the most public space of the site, the village square. Site space holds outdoor seating connected to the public restaurant, three boules courts, a water mirror and berry bushes.
- ③ The highest point of the site. Accessible from the village square, natural pool and neighbourhood.
- ④ The natural pool.
- ⑤ A small chicken farm accessible from the courtyard and visible from the neutral elevated corridor.
- ⑥ Farming and gardening for residents in the dementia village.
- ⑦ This area is defined as a the butterfly garden with lush flowerbeds.
- ⑧ All of the neutral corridors are elevated and are designed as bridges. This ensures that the neighbourhood has access to the gardens as well. It creates a soft but perceptible transition from courtyard to free space so that residents has the possibility and choice to leave. The road however leads back to the north end of the courtyard.
- ⑨ Public allotment gardens.



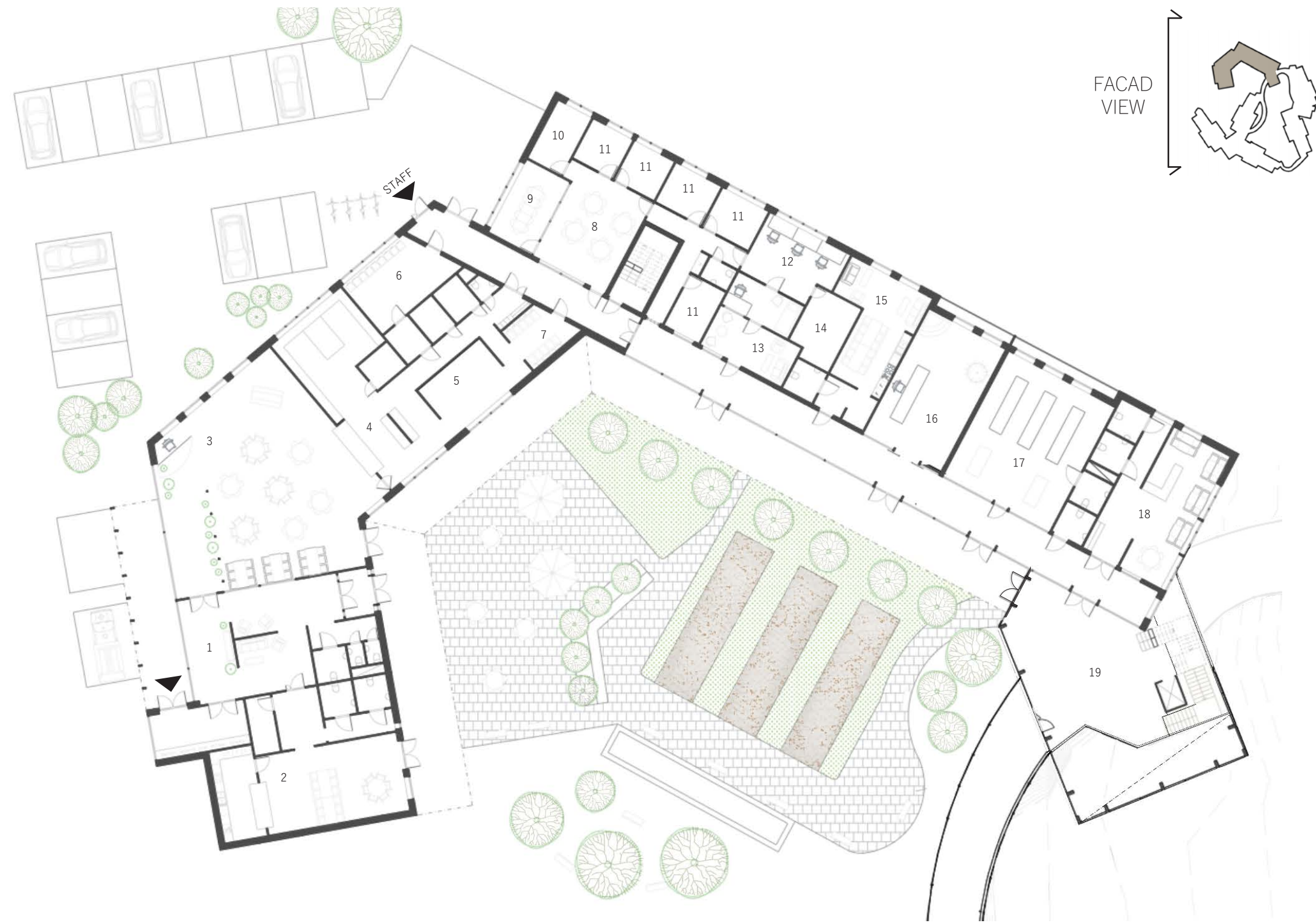
The neutral corridors in the project are elevated to make the courtyard accessible for the neighbourhood, but also so that the residents have the choice to leave. To create a safe and secure feeling in the corridors, the lower part of the walls are filled and sloping outwards, away from the corridor to disconnect the pedestrian from the ground. Instead, the top part of the corridors are glazed and sloping upwards to lead the gaze towards the sky, as shown in the section below.

The hight of the buildings differ on the site to follow the curve of the hill but also connect with the surrounding neighbourhoods in scale.



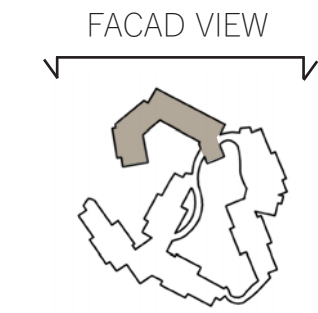
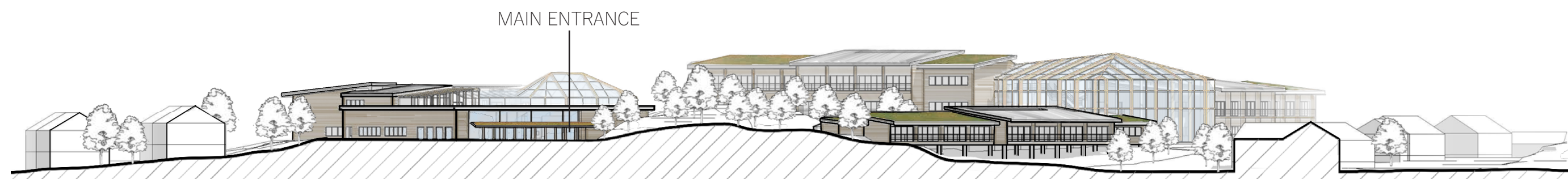
SITE SECTION

1:600



MAIN BUILDING
ENTRANCE LEVEL - F0
1:300

1. Lounge
A spot for meeting up or waiting
2. Day centre
A day centre to include elderly who don't live in the village. Also rentable for parties, (64,2 sqm).
3. Restaurant
For the village and neighbourhood (164,6 sqm).
4. Serving/Preparation and Cooking
(29,7+35,2 sqm).
5. Dish washing station
6. Garbage
(25,2 sqm).
7. Food Trolley Parking
(11,4 sqm).
8. Staff Office
9. Meeting Room
(17,3 sqm).
10. Calm Room
11. Office Adm. and/or Head
(9,9 or 8,6 sqm).
12. Nurses Office
13. Waiting Room Nurse
14. Drug Storage
15. Staff Lunch Room
(34,0 sqm).
16. Store
A local store for the dementia village (51,9 sqm).
17. Workshop/Pottery
(72,4 sqm).
18. Bar
(49,5 sqm).
19. Winter garden
Connection to unit above, lower levels, neutral corridors and courtyard.



MAIN BUILDING
STAFF AND PUBLIC LEVEL F-1
1:300

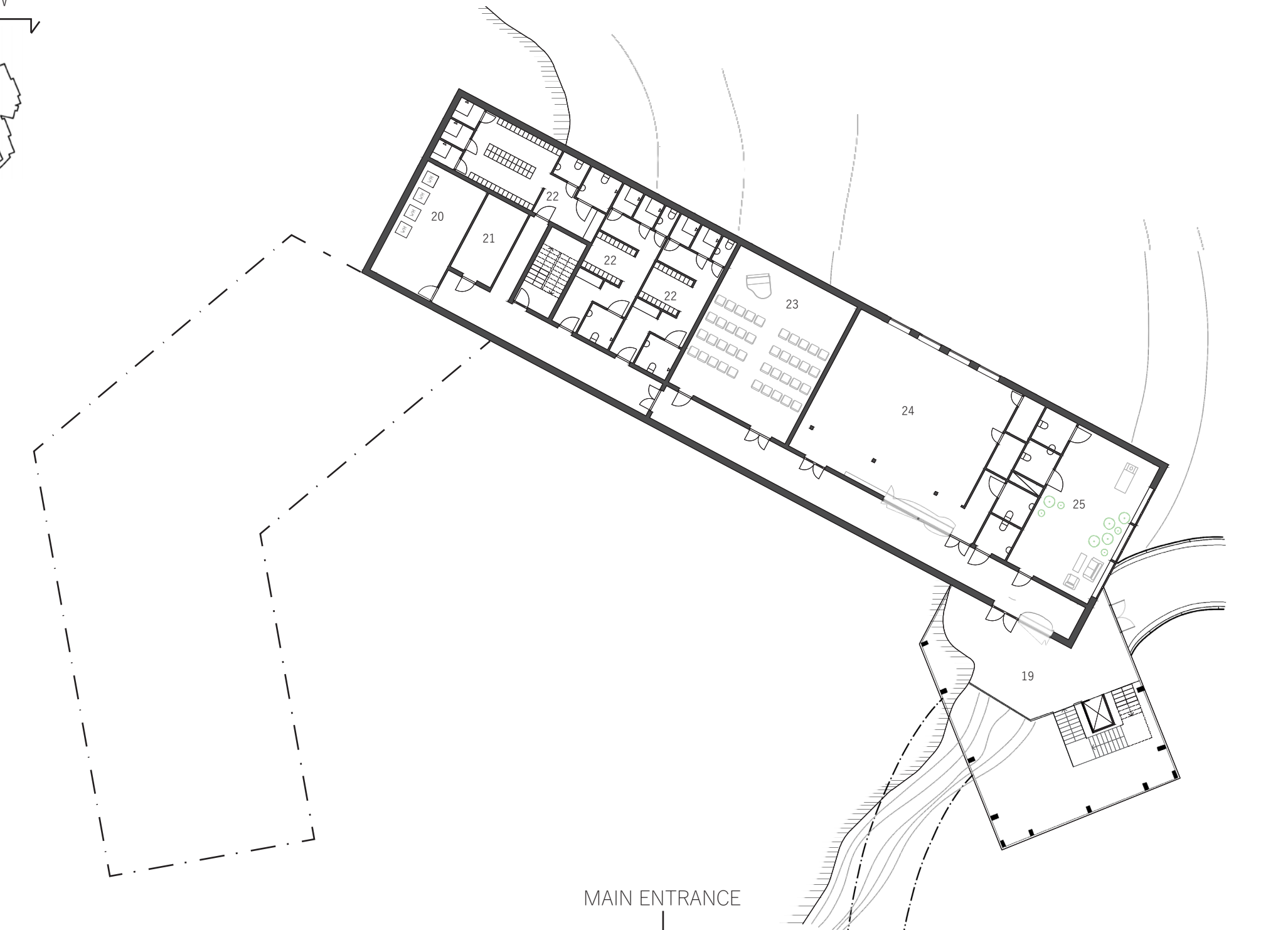
20. Staff Laundry
(33,3 sqm).
21. Clean Staff Wear
(15,1 sqm).
22. Staff Changing Room
Three rooms with a total of 90 lockers.
23. Theater
Room for movies or performances (81,9 sqm).
24. Sports
Room for small sporting events (116,4).
25. Spa
The village's hair dresser and foot care (56,9).

This building is called the main building and holds the most public spaces of the dementia village, giving the area a more urban feeling. This building is also the entry point for material- and staff flow in the village.

All the public functions in the dementia village is gathered here, along a glazed shopping street in the north wing of the building, facing the square.

The west wing of the main building has the strongest connection to the neighbourhood, with a public restaurant. The restaurant can be used by the villages residents, but the kitchen also prepares food trolleys for the units.

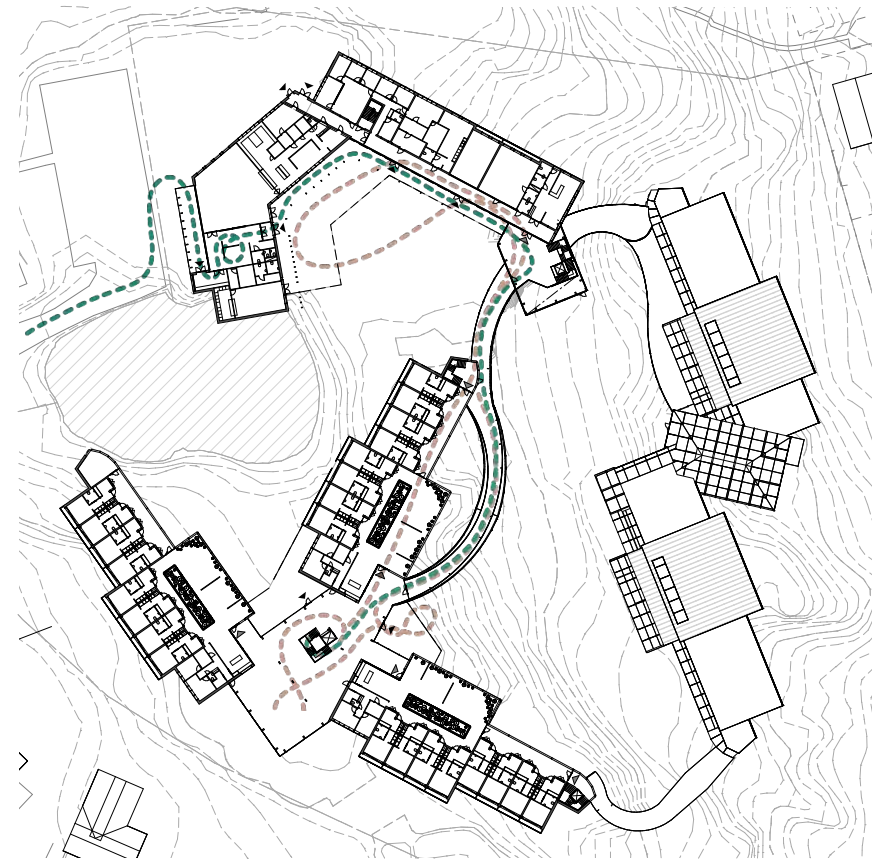
On top of the north wing, there is a unit connecting to the courtyard through the winter garden.



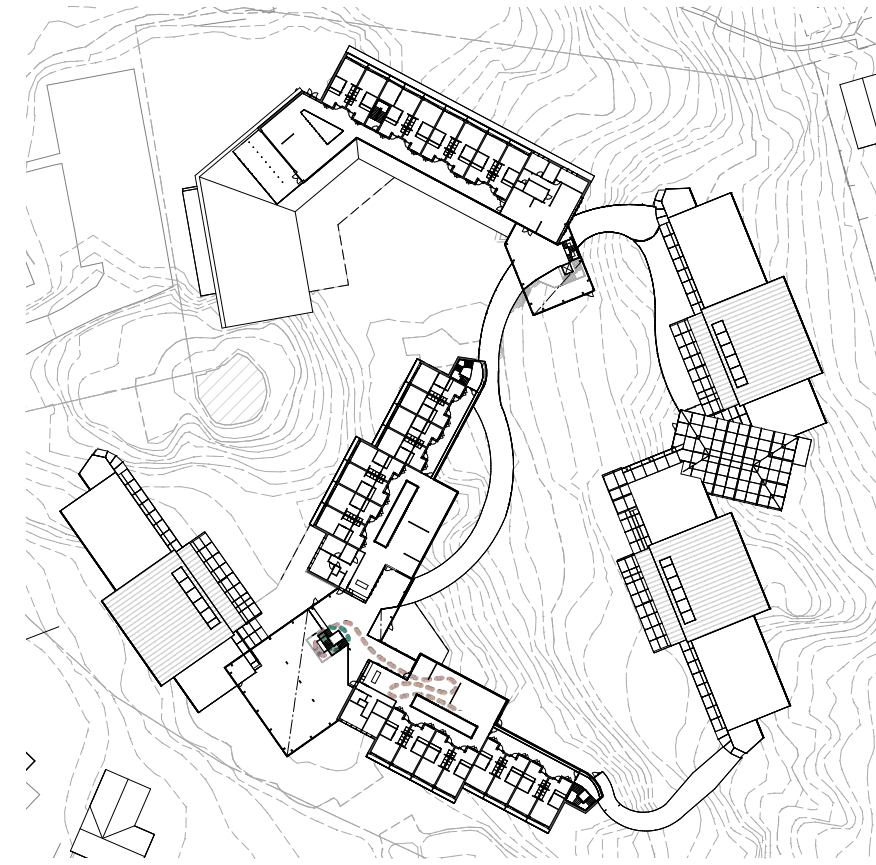


THE PACING RESIDENT MARGIT

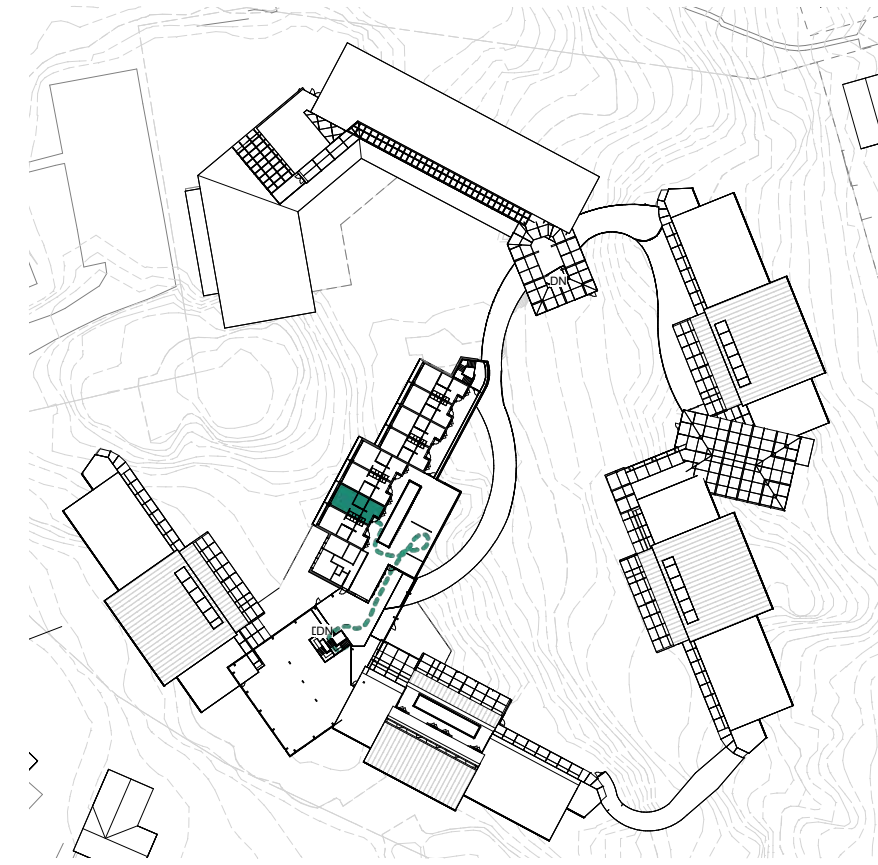
Margit lives in the dementia village, on floor 1. She likes to wander and meet people to find fulfilment. On a typical day, Margit wanders out of the unit and down into the winter garden. She meets some people but continues her promenade. Because of the village's connecting corridors and big loops, Margit can wander continually as much as she likes. The road will be safe and divers with different outlooks down the hill. Margit would eventually make her way back through way finding. Because of the corridors orientation towards the courtyard, Margit will have an overview of the site. To her aid, every unit has their own facade material towards the winter gardens and can therefore be distinguished.



FLOOR 0
ENTRANCE LEVEL



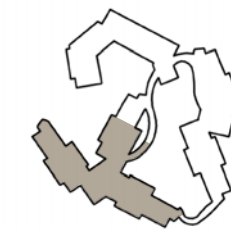
FLOOR 1



FLOOR 2

THE VISITING JONES

The little family is on their way to visit their grandma, for the first time since she moved into the dementia village. The family enters through the main entrance where they ring a bell to connect with the staff. The family waits for a moment in the lobby before they meet the caretaker who leads them to the right unit. He points towards the unit from the village square. When the Jones meets their grandma, she is waiting in the unit common room, but to get some privacy the family gathers at her apartment kitchen for some fika.



THE SOUTH WINTERGARDEN - FLOOR 0

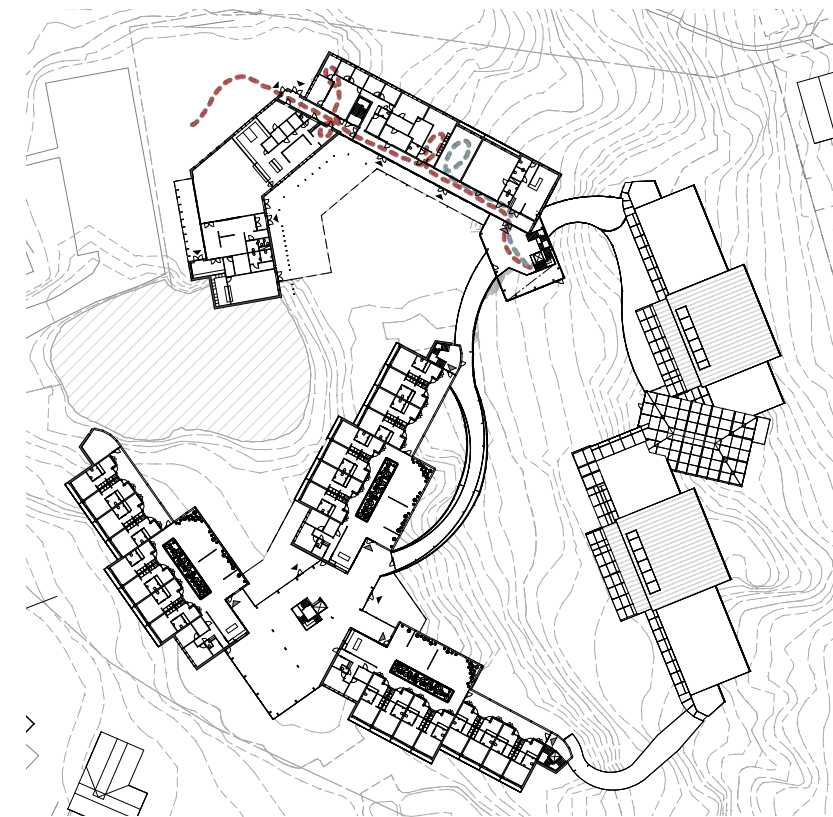
1:300

The winter gardens are fully glazed and as high as the highest connecting unit building, three stories. In the atrium, a central stairwell is placed and used as the main vertical connection to the units. Every units front door and common kitchen faces a central winter garden, making it a semi public space in the dementia village. Everyone can come here. It's a place to meet other residents or visitors. It's a place for bigger gatherings or a warm place to relax.

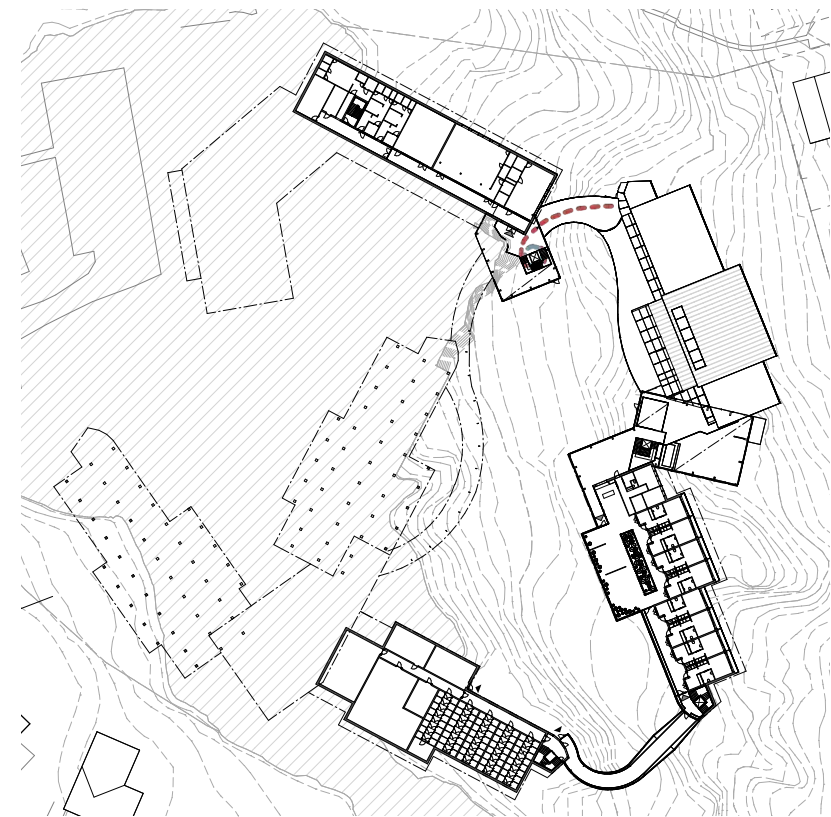


THE CARETAKER MIKA

The caretaker Mika is working a day shift at his ordinary unit. After a hectic morning it's starting to calm down. Mika takes his break in the main building; eats his lunch with some colleagues in the staff lunch room and does a short meditation in the calm room. On his way back he brings the lunch trolley with him from the kitchen. After lunch is served, he brings some of the residents to the winter garden for a common activity. Now it is peaceful at the unit and Mika takes the opportunity to prepare the afternoon fika, waters the plants and does some documenting in the office. When his shift is over, he returns to the main building where he gets changed, puts his work wear in the laundry room and then goes to fetch his bike and go home



FLOOR 0
ENTRANCE LEVEL



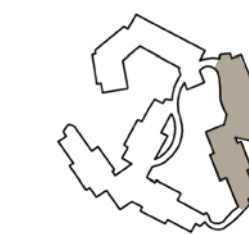
FLOOR -1



FLOOR -2

THE FRAIL MIRIAM

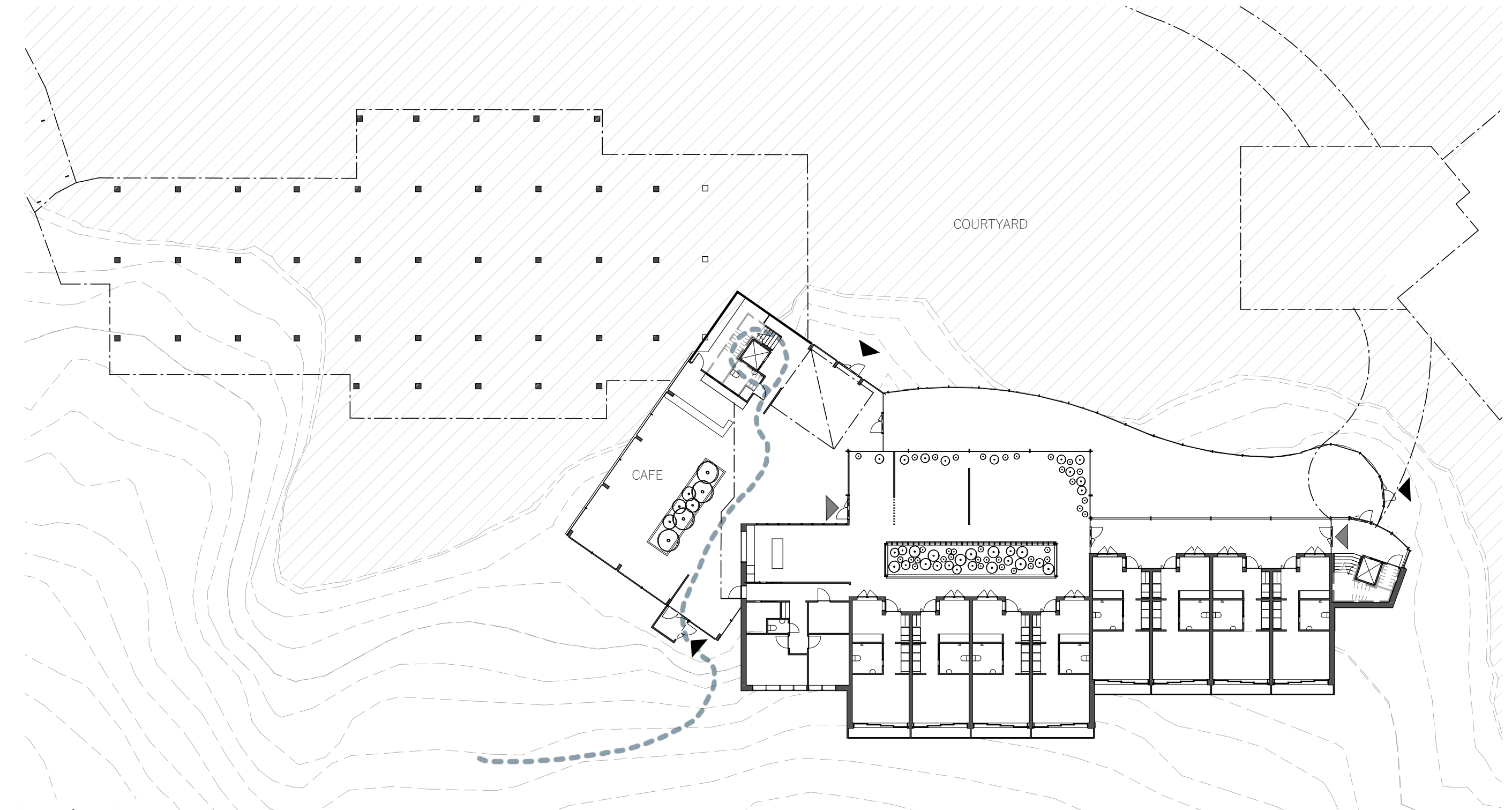
Ever since Miriam's illness got too difficult to handle at home and she had to move to the dementia village, her partner has been visiting her every day. Today is no difference and she is arriving from Svärdfejaregatan. She pops her head into the office at the unit to say hello and then goes to see Miriam. Miriam is happy to see her, and she helps Miriam out and pushes her in her wheelchair through the courtyard where they feed the chickens, smells the flowers and sits in the gazebo. When the rain comes, they go to the store to look around at pick out a new shampoo for Miriam. After a lunch in the village restaurant, they retire to a winter garden where they sit and watch the rain pass by.



THE EAST WINTERGARDEN - FLOOR -3

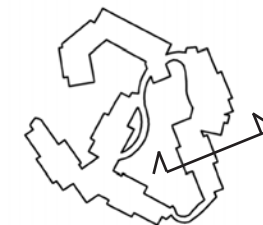
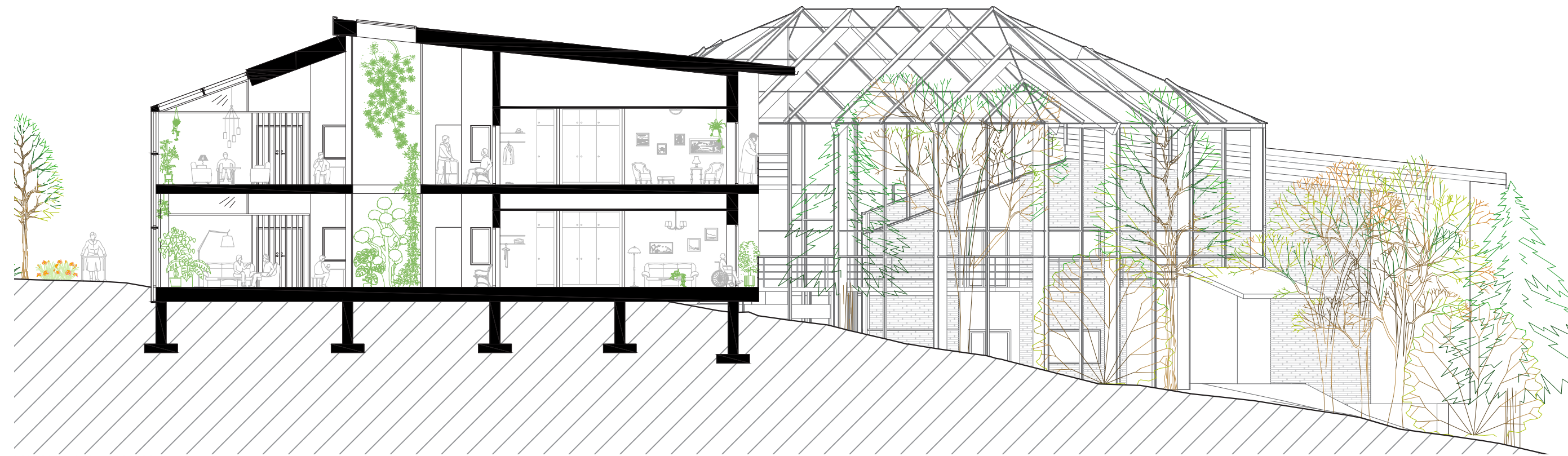
1:300

This winter garden is situated to the east of the village and is connected through a secondary entrance to the neighbourhood and Svärdfejaregatan. It is an entrance for visitors who already knows their way around the village or costumers to the local cafe. This winter garden is three stories high and connects a total of four units. As the other winter gardens, this atrium can be reached by a neutral corridor from the atrium by the main building.



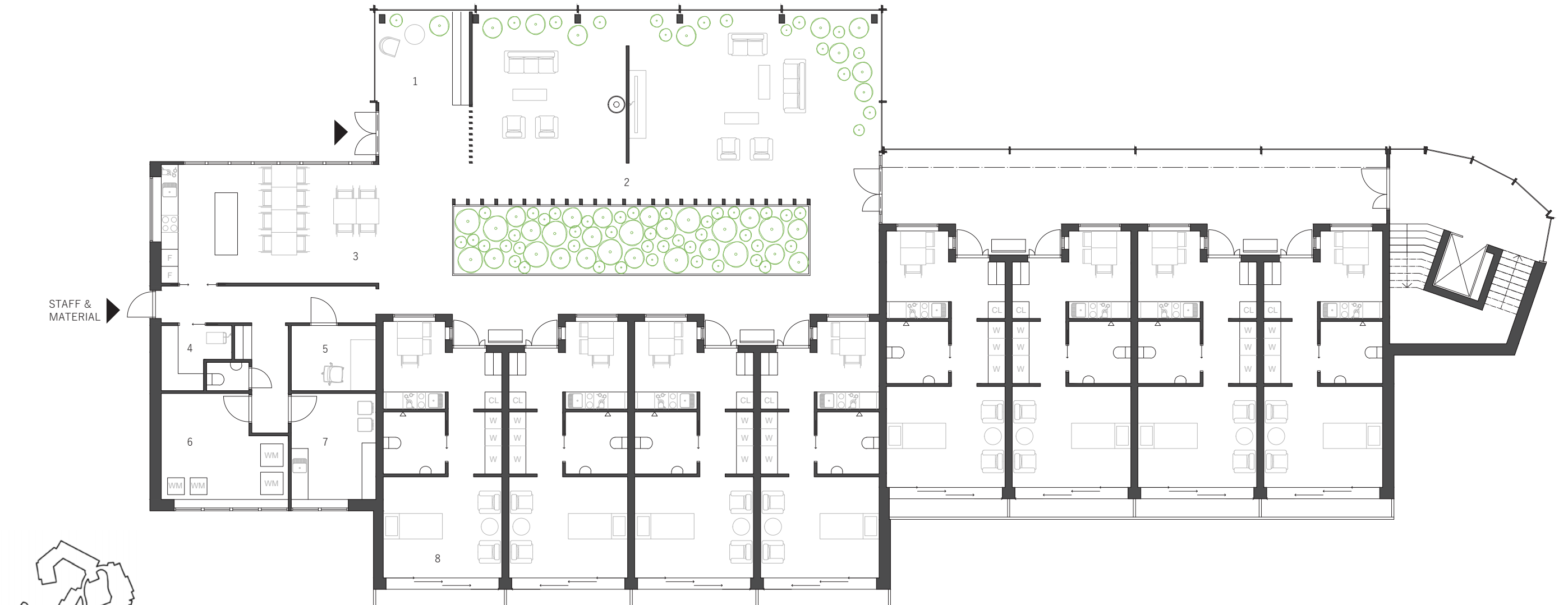
VIEW FROM A UNIT KITCHEN

The dementia village will from a far mainly be represented by glass and natural wood because of its large winter gardens, glazed corridors and wooden façades. But to get some identity and detailing on a smaller scale, closer to the resident, reused windows are used in the unit common kitchen facing the winter gardens, creating a differentiation between the village's public space and the unit's own social rooms. The aim to reuse materials will also affect the usage of resources, even thou the village is vast.

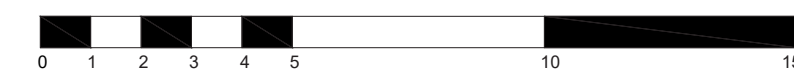


UNIT SECTION 1:150

This section shows the broadest part of the unit building, cutting through the unit common room, vertical garden and the apartments. It is clear that no matter where a resident resides, nature is a part of the spatiality and the every day life in different forms. This section also shows the scale of the adjacent winter garden.



UNIT FLOORPLAN 1:150



- 1. Hallway (17,7 sqm).
- 2. Common Room
A space, separated i two areas, fore socializing (96,4 sqm).
- 3. Common Kitchen/Dining Room
For the units shared meals and activities (32,2 sqm).
- 4. Pantry
With space for food trolley (4,7 sqm).
- 5. Local Staff Office (6,9 sqm).
- 6. Laundry Room/Storage (14,8 sqm).
- 7. Waste/Disinfection (11,3 sqm).
- 8. Apartment
8 apartments per unit à 35,9 sqm.

Along with the entrance to the unit, there is a wall of reused windows towards the kitchen. This will add identity and a richness of details as well as differentiate the public atrium from the unit, but still keep the glazed and transparent appearance.

The first room is a spacious hallway that opens up into the big common room which is divided into two spatialities. On one side it is a tv-room and on the other side there is a small fireplace. The common room is divided from the apartments

with a transparent vertical garden which serves as a light shaft and provides the adjacent apartments with a green view.

The staff and the material flow have a separate entrance, but the space is still accessible for everyone and the office is visible from the social areas.

At the far end of the unit, there is stairwell for fire escape purposes but mainly to connect the unit to the big circulation path in the dementia village.



APARTMENT VIEW

Because of the apartment's layout, an axiality enables a resident to get an outlook from the apartments hallway, through the bedroom and out. The axiality will help a resident to orientate and be encouraged to enter the apartment. For every apartment, this view is facing away from the courtyard, giving the resident a space that feels private and separated from the dementia village.

Like the whole village, the materials that are used are soft and dominated by natural wooden surfaces.

The apartments has several wardrobes for storage, but every apartment also has a private storage of 1,2 sqm on the site.



APARTMENT FLOORPLAN: 35,9 SQM

1:75

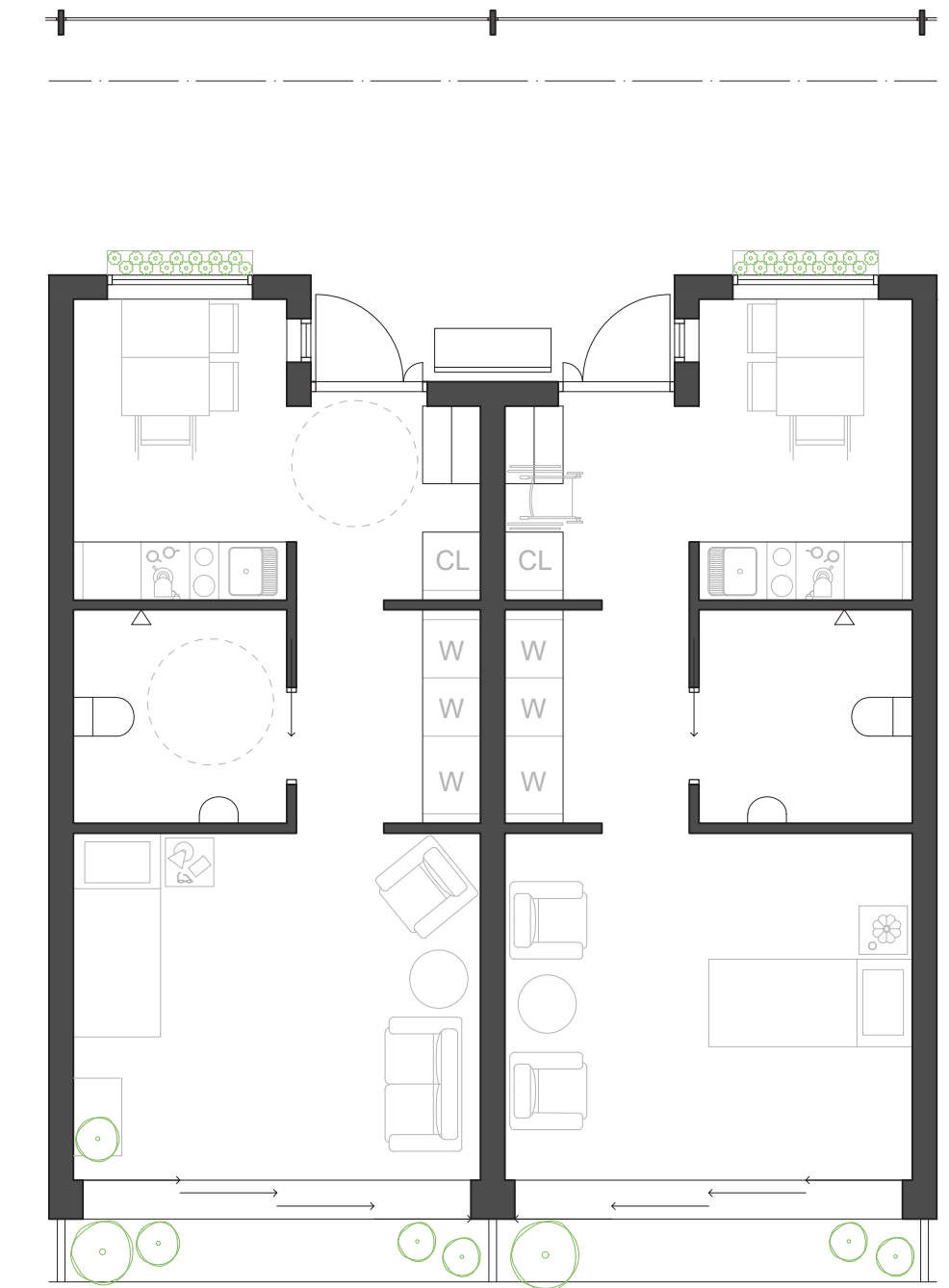
From the fully glazed corridor, residents reach their apartments. Outside the kitchen window is a flowerbox to personalize the entry. There is also a bench outside which is shared with the neighbour. This space is a semi-social zone and a part of the transition between private and public which has been a motivation in the project.

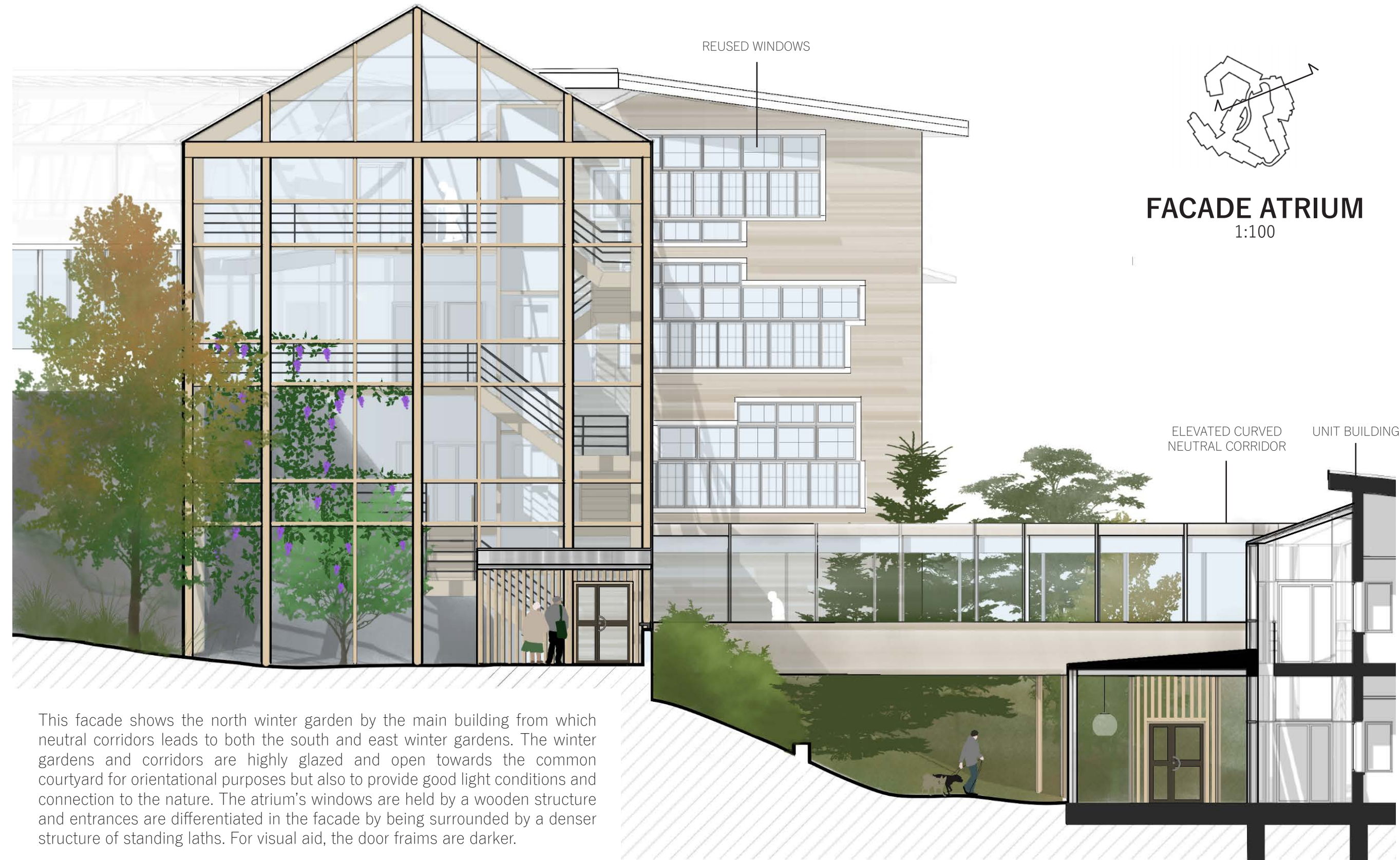
The next step in the transition is the interactive kitchen which allows the resident to sit in their own space, but have the possibility to be aware of what's going on outside. This will encourage and motivate the resident to join in if something seems to be happening outside. The kitchen and hallway are separated from the most private space, the bedroom, by the bathroom and wardrobes.

On the sunny side of the apartment, the doors slide open and diffuses the boundaries between inside and outside. This allows a bed bound resident to connect with nature.

The apartments are kept quite long and slender to be able to have outdoor views and light on both ends. This also helps keeping the corridors as short as possible.

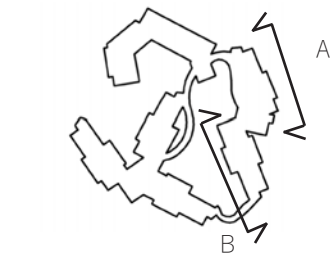
Total of 88 apartments.





FACADE ATRIUM
1:100

This facade shows the north winter garden by the main building from which neutral corridors leads to both the south and east winter gardens. The winter gardens and corridors are highly glazed and open towards the common courtyard for orientational purposes but also to provide good light conditions and connection to the nature. The atrium's windows are held by a wooden structure and entrances are differentiated in the facade by being surrounded by a denser structure of standing laths. For visual aid, the door frames are darker.

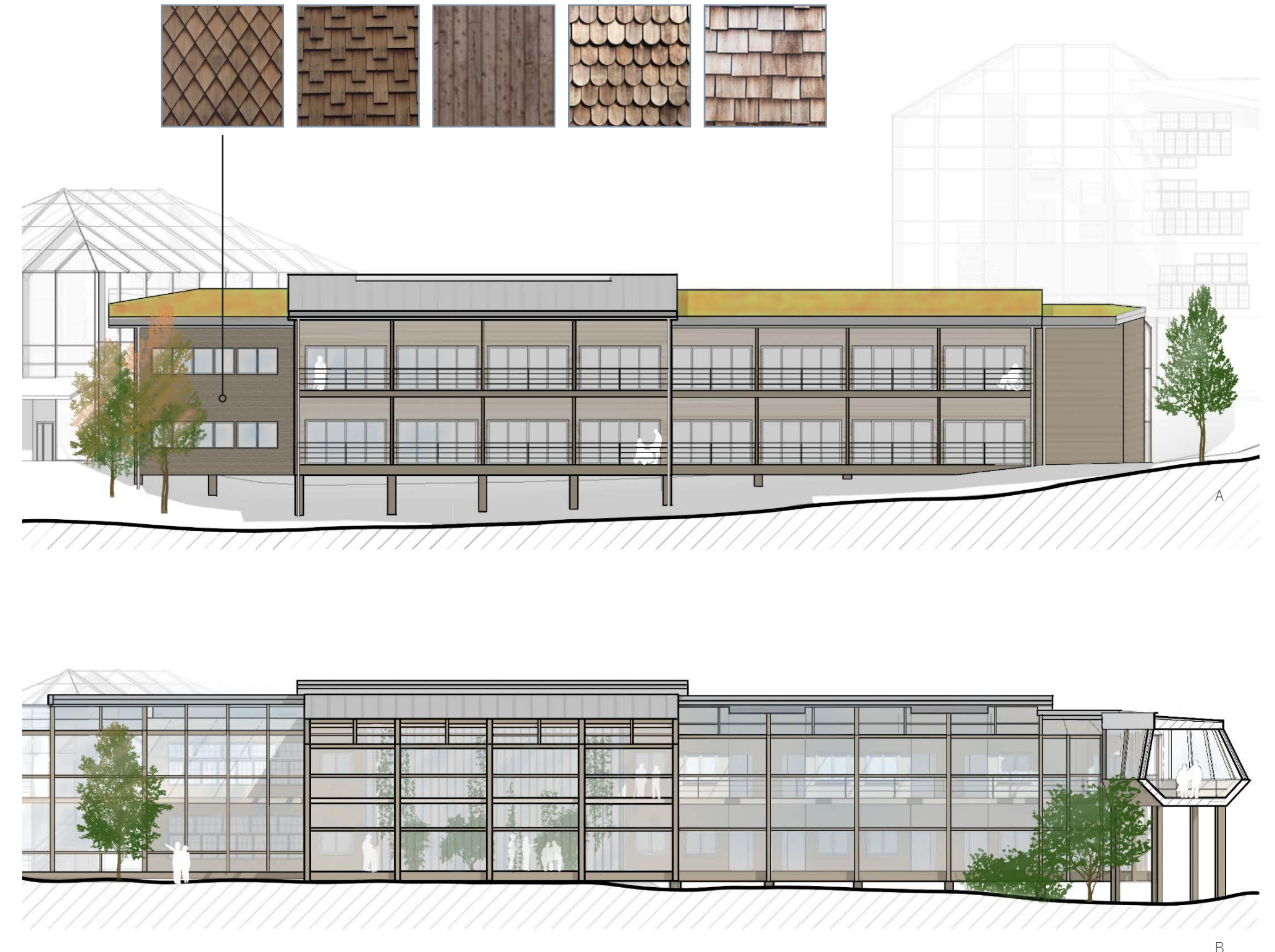


FACADE UNIT

To make the buildings appear kind and as connected to the lush environment as possible, the facades are made from natural wood, crowned with green roofs for the most part and some grey tin roof for the middle part. To differentiate the unit buildings visually, the cubic end, holding the entrance facing the winter garden, has a unique pattern of wood to create texture and variety. There are 5 different wooden textures as shown in the pictures above.

The dementia village is placed on a steep slope, and to not amplify the verticality, the facades have a horizontal formation. The facade facing outwards from the village, towards the neighbourhood holds the private apartment balconies and is more closed than the facade facing the courtyard which opens up, inviting the courtyard life and seasons to flow in to the common spaces.

This, together with volume managing will make the village look quite humble despite the many newly built square meters.



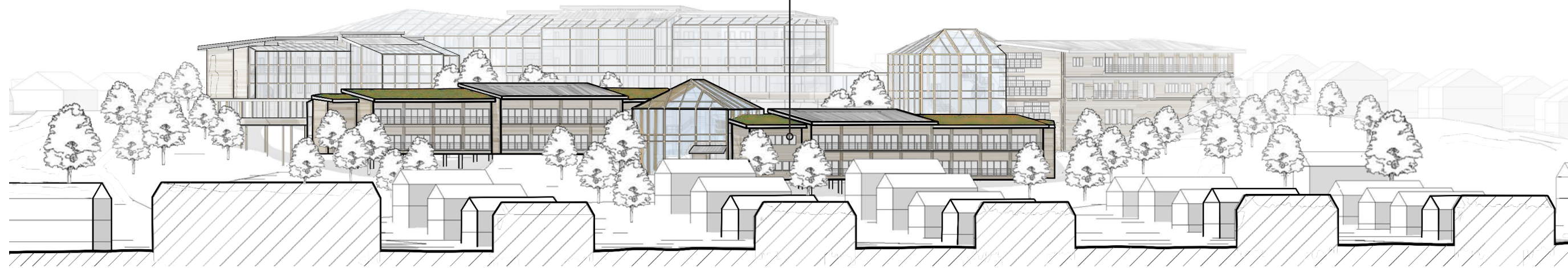


The new development continues the existing building's climb up the hillside and is seen as an extension of the existing neighbourhood.

From a distance, the dementia village can be seen in layers as the buildings behind the front row rises with the topography.

By Svärdfejaregatan, a visitor is met by a slightly rotated winter garden, which is a second entrance to the facility. The rotation of the winter garden indicates that there is more to explore at the end of the street.

To bring down the scale, the volumes of the unit are divided.



FACADE SITE TO EAST

1:600

PROJECT BY GROUP 2: IDA DAHLBERG, KAROLINA WÄLI & BIAO CHEN

NATURE'S SANCTUARY

88 APARTMENTS (å 35,9 sqm)
11 UNITS
6 BUILDINGS

15 500 PROJECT SQUARE METERS
24 000 SITE SQUARE METERS

CHALMERS UNIVERSITY OF TECHNOLOGY
2022

