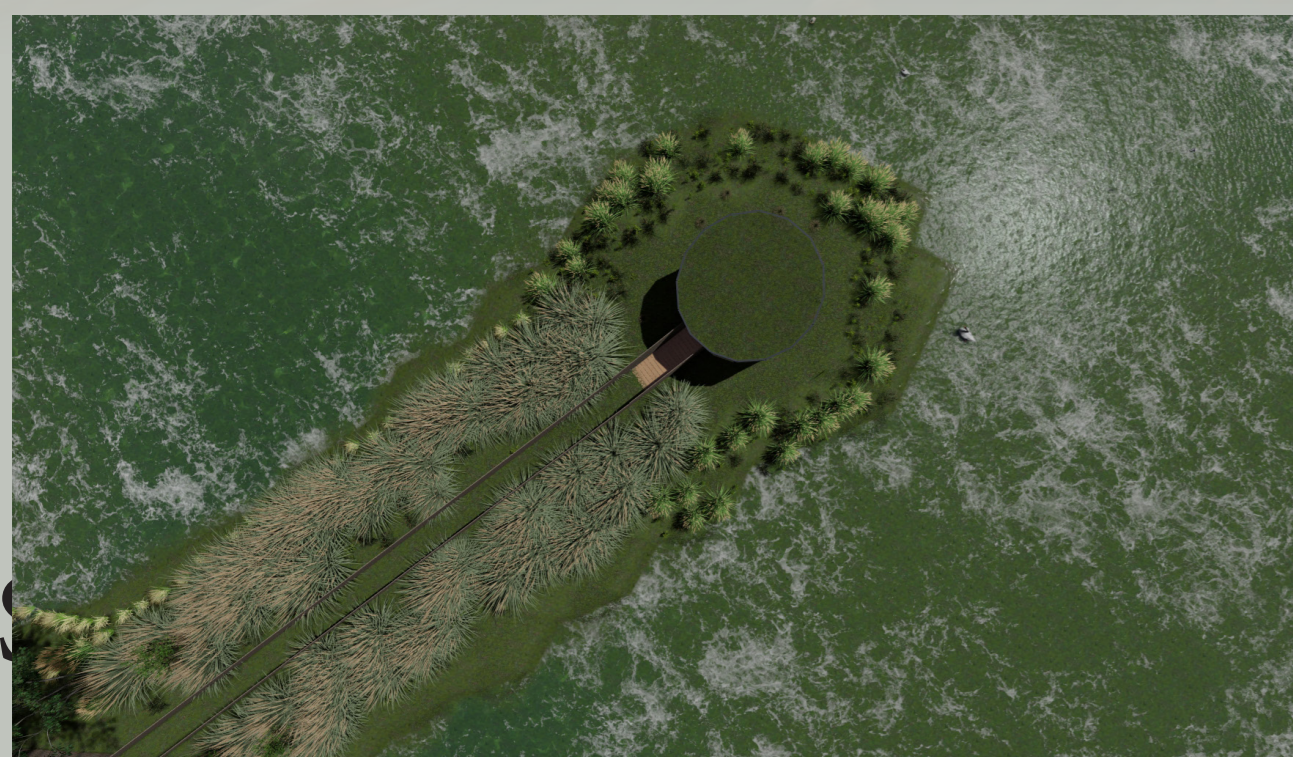
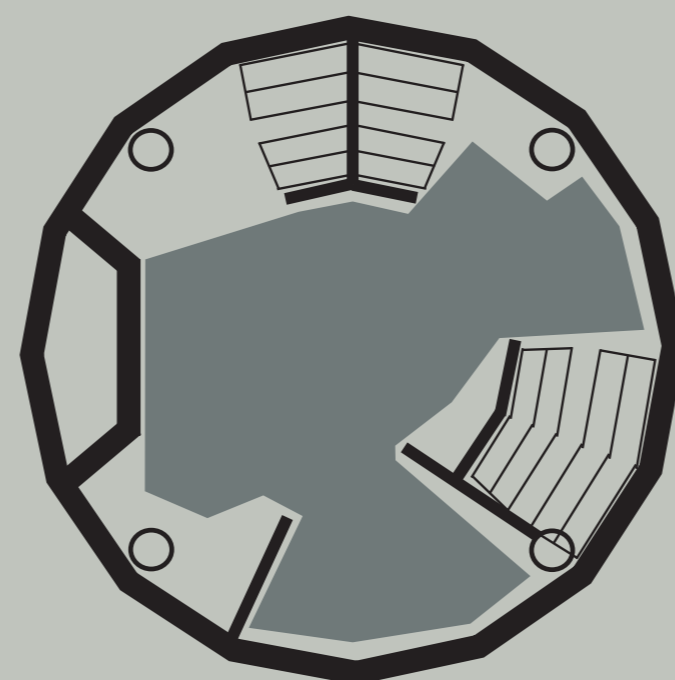


Vandal Proof Hut

For Staatsbosbeheer - Lauwersmeer, Ezumakeeg
Group 4/6



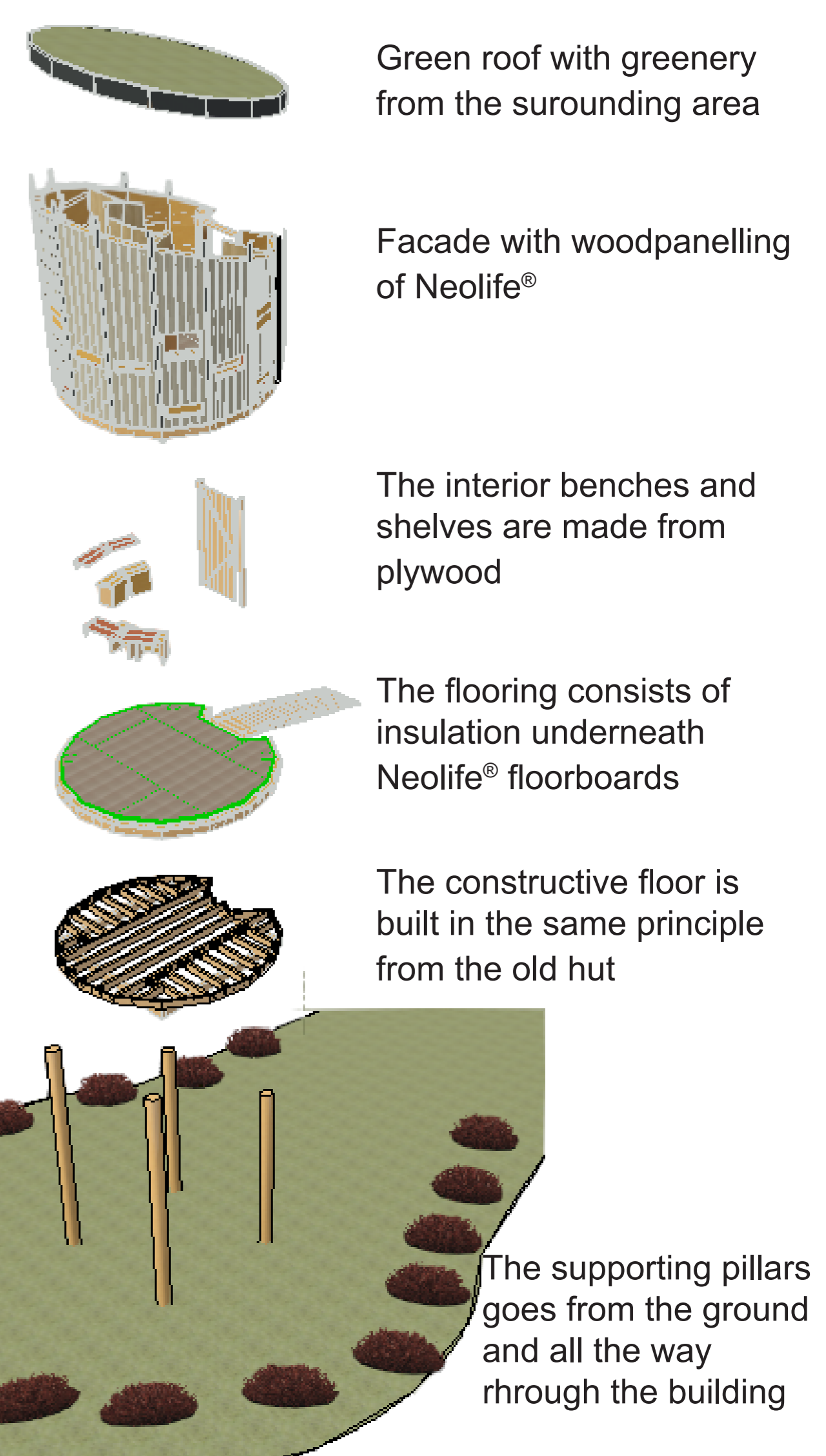
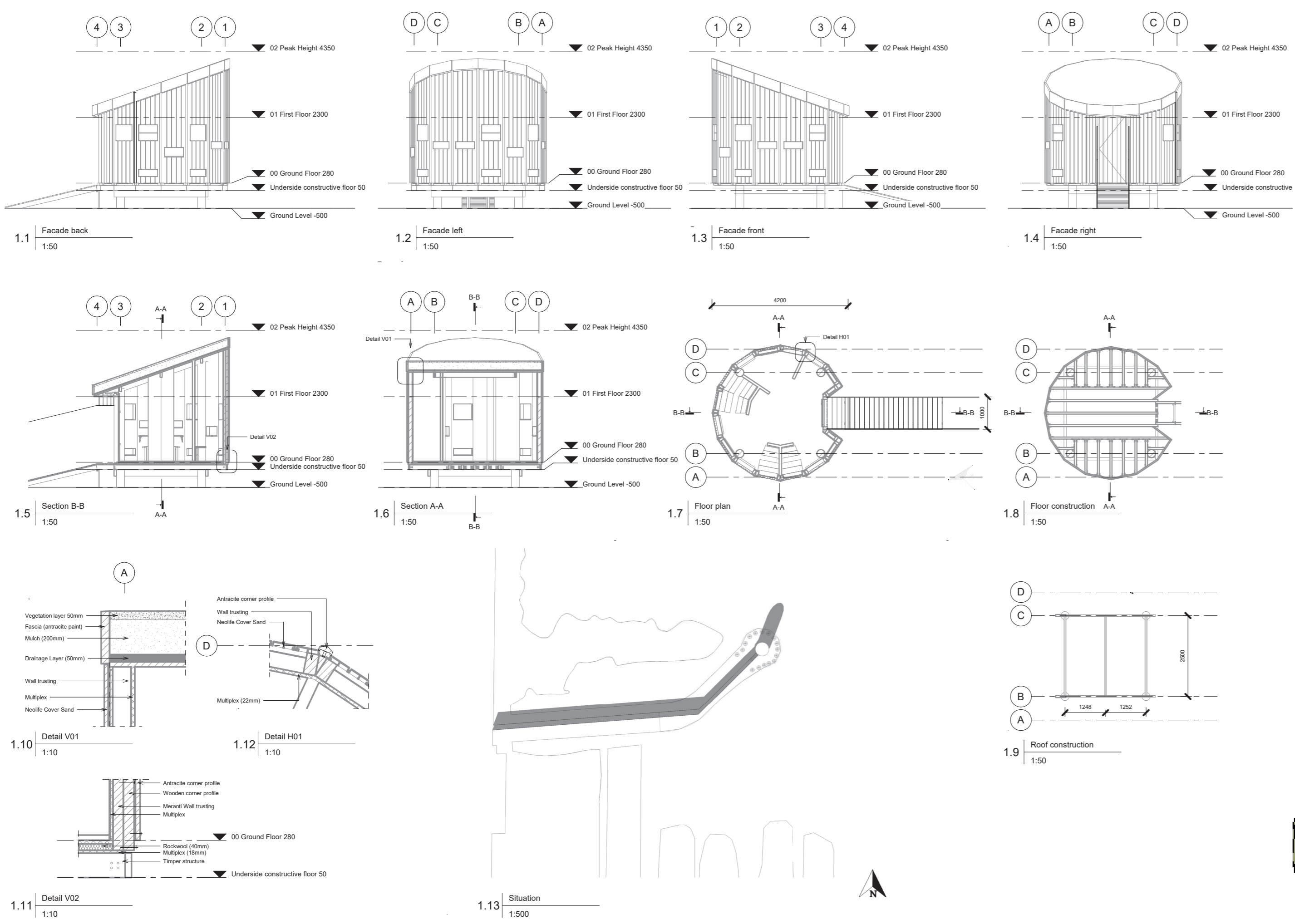
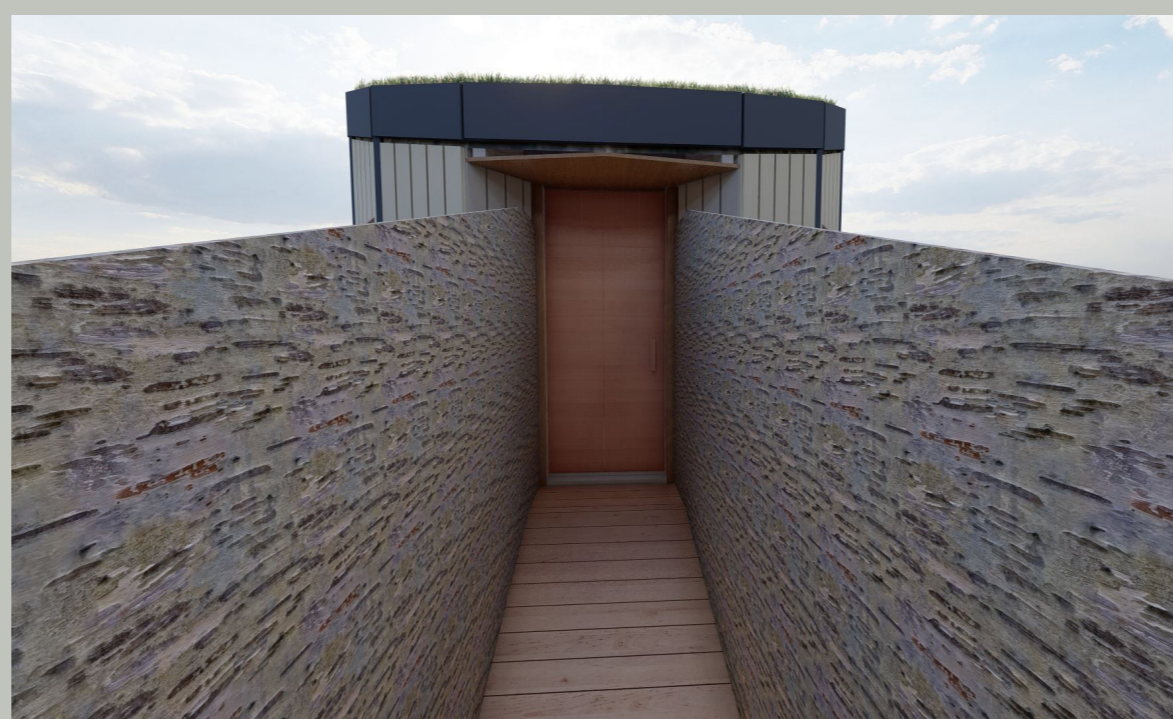
Integrated to the surrounding area
Seeing the hut from a birds perspective it blends in to the nature around it. The colours on the facade are colours from the surrounding colourpalette



Area accessible for wheelchair users



Vandal proof
The inside has dividing sections med up from plywood. Preventing groups to assemble and provides privacy for watchers and photographers



Green roof with greenery from the surrounding area

Facade with woodpanelling of Neolife®

The interior benches and shelves are made from plywood

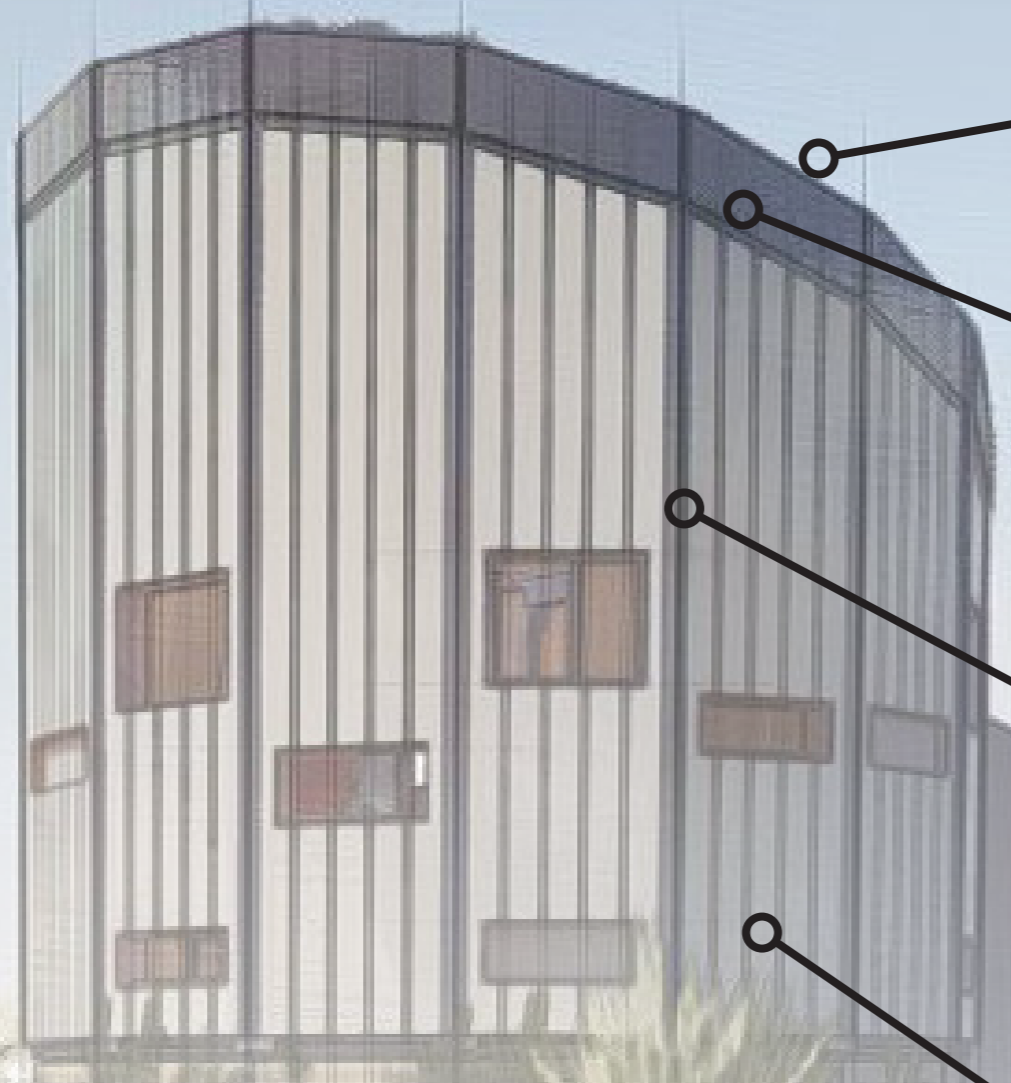
The flooring consists of insulation underneath Neolife® floorboards

The constructive floor is built in the same principle from the old hut

The supporting pillars goes from the ground and all the way through the building

Vandal Proof Hut

For Staatsbosbeheer - Lauwersmeer, Ezumakeeg
Group 4/6



Green roof

Materialization

With the guiding theme: Included exclusion we wanted to include and integrate the hut to the surrounding area through the material.

The exterior panelling is Neolife® which has a fire resistance rating Euroclass B. It's made from composite and 10% biosourced wood.

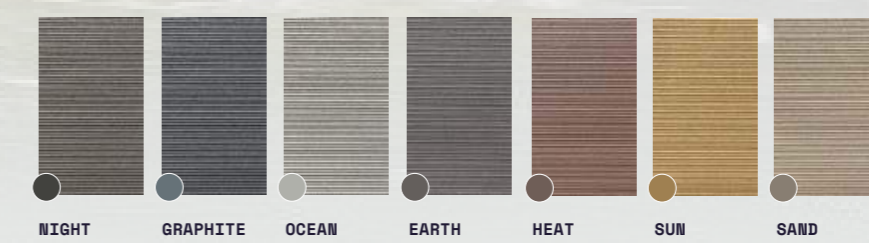
We recommend a green roof to "give back" to the surrounding nature and to make the hut blend in from a birds perspective. It's easy to maintain and can be installed with plants already in the area.

The separating material between the facade pieces and the roof side is wood painted in RAL 7016

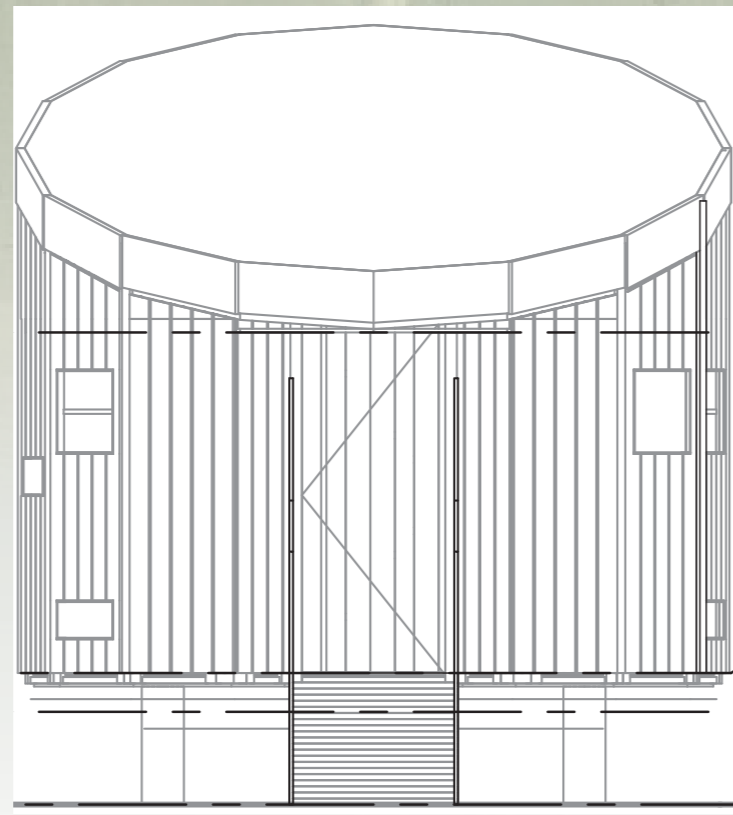
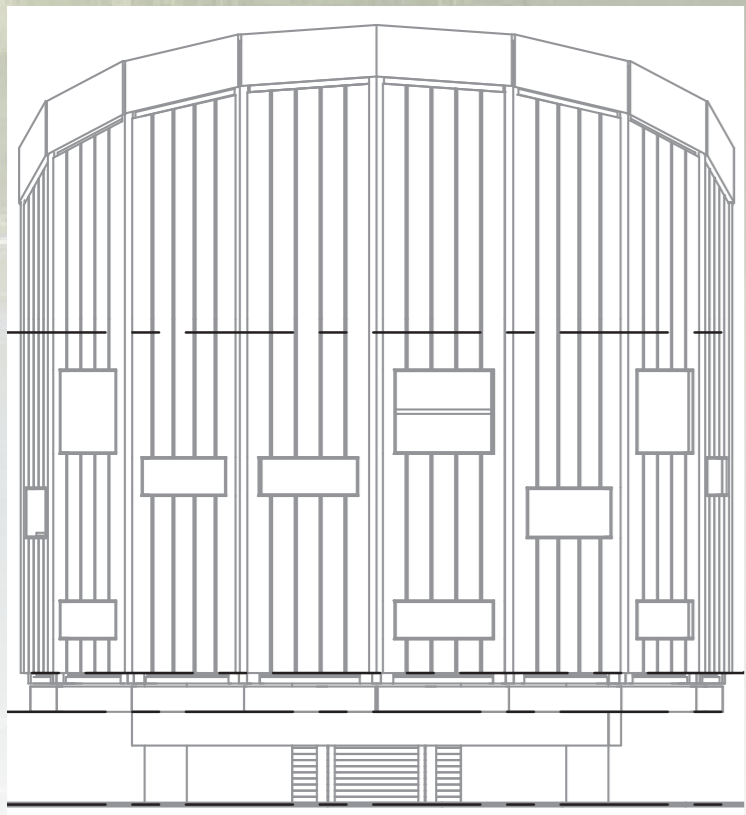
RAL 7016

Painted wood

Neolife® colour options

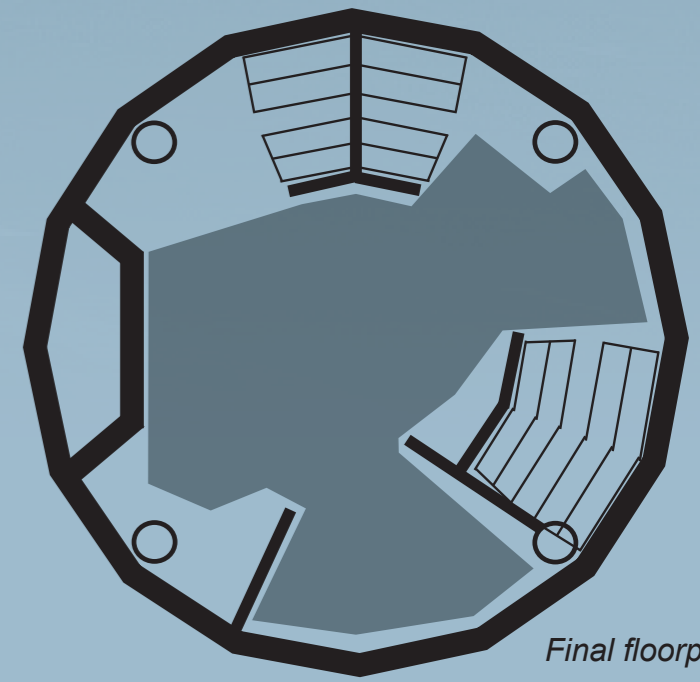


Neolife®



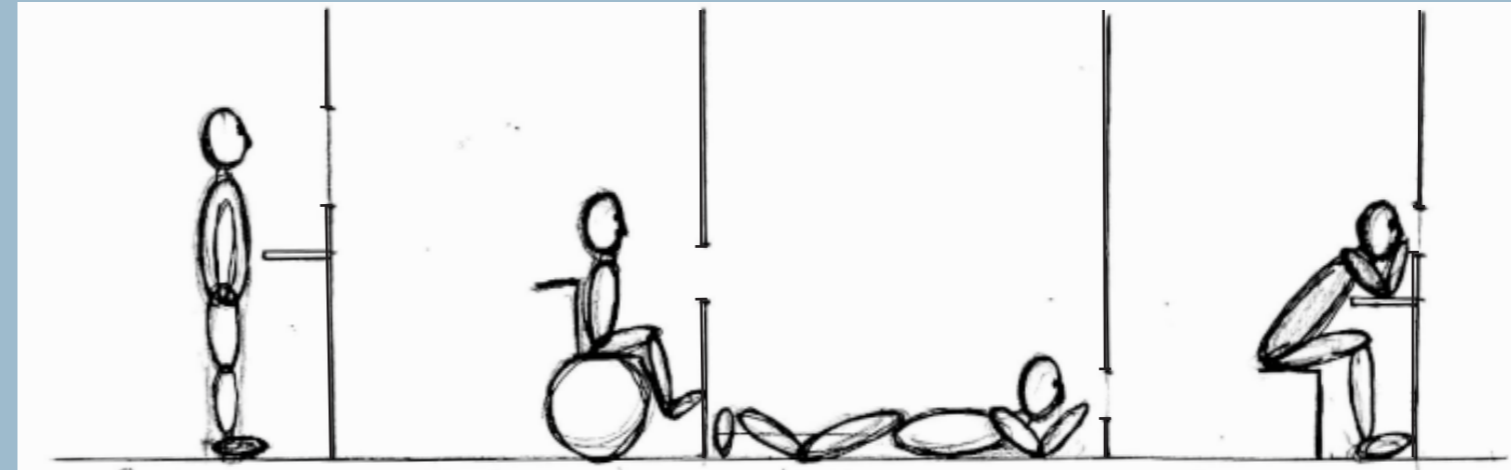
Floorplan and accessibility

The final floorplan combined with peephole placements accommodates wheelchair users, bird watchers and bird photographers all in one. The dividing walls functions as obstacles for bigger groups **even provides the watchers and photographers with more privacy**



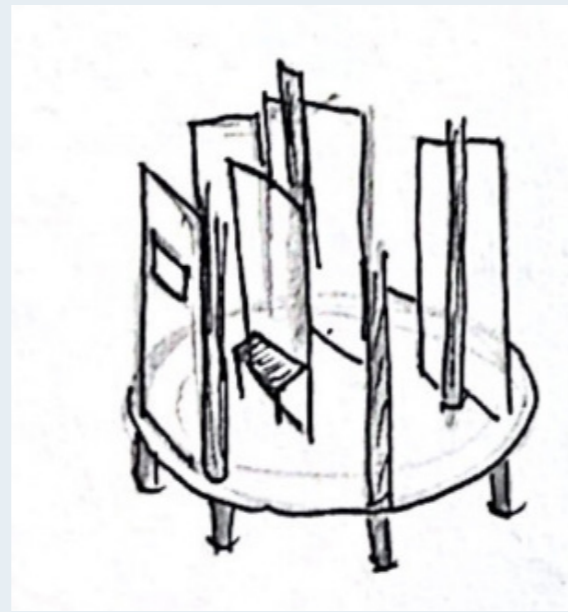
Final floorplan

Area accessible for wheelchair users



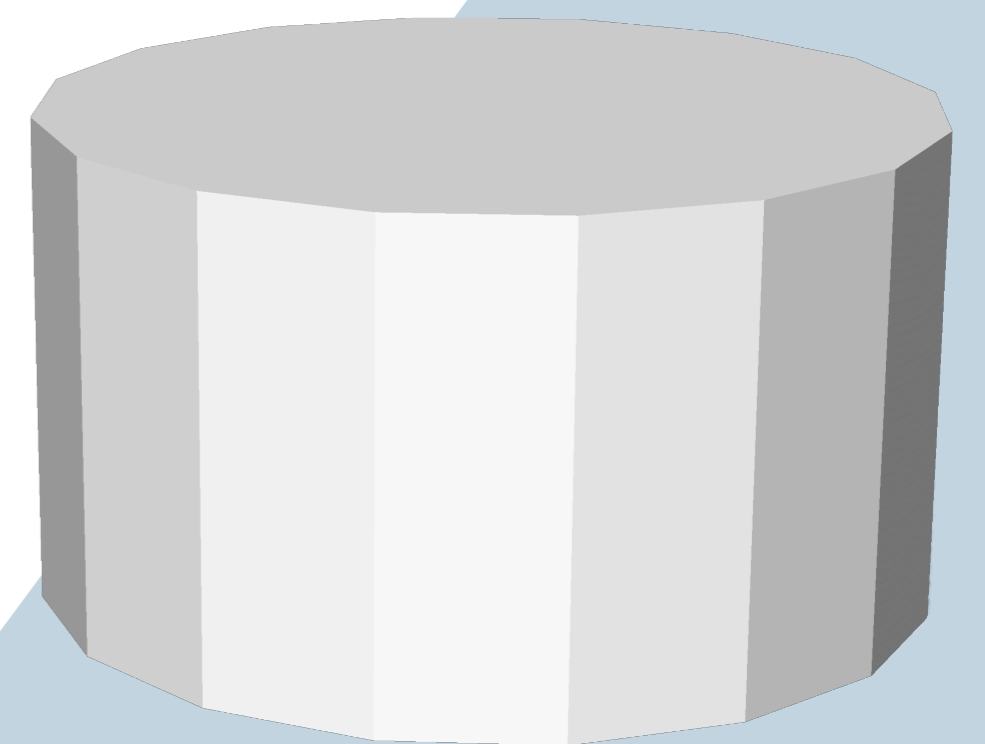
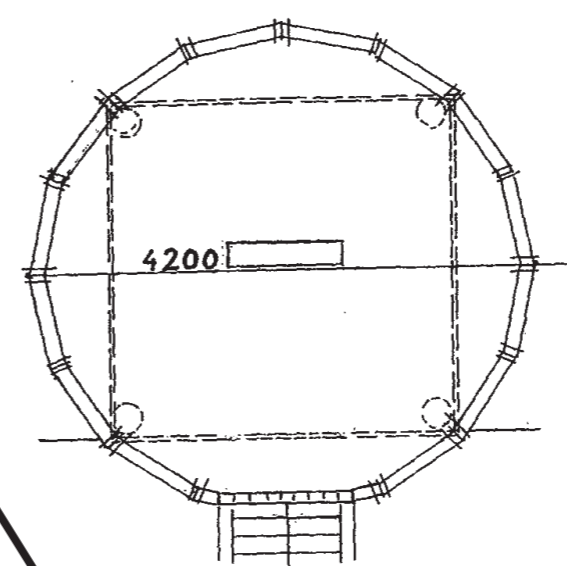
Vandal proof

The concept of making it vandalproof consist in the idea of making it **harder for groups to assemble** in the hut. By putting up obstacles you obtain to prevent bigger groups to assemble and thereby keep unwanted visitors out. But how does birdwatchers and photographers still feel like it's their space?



Shape and footprint

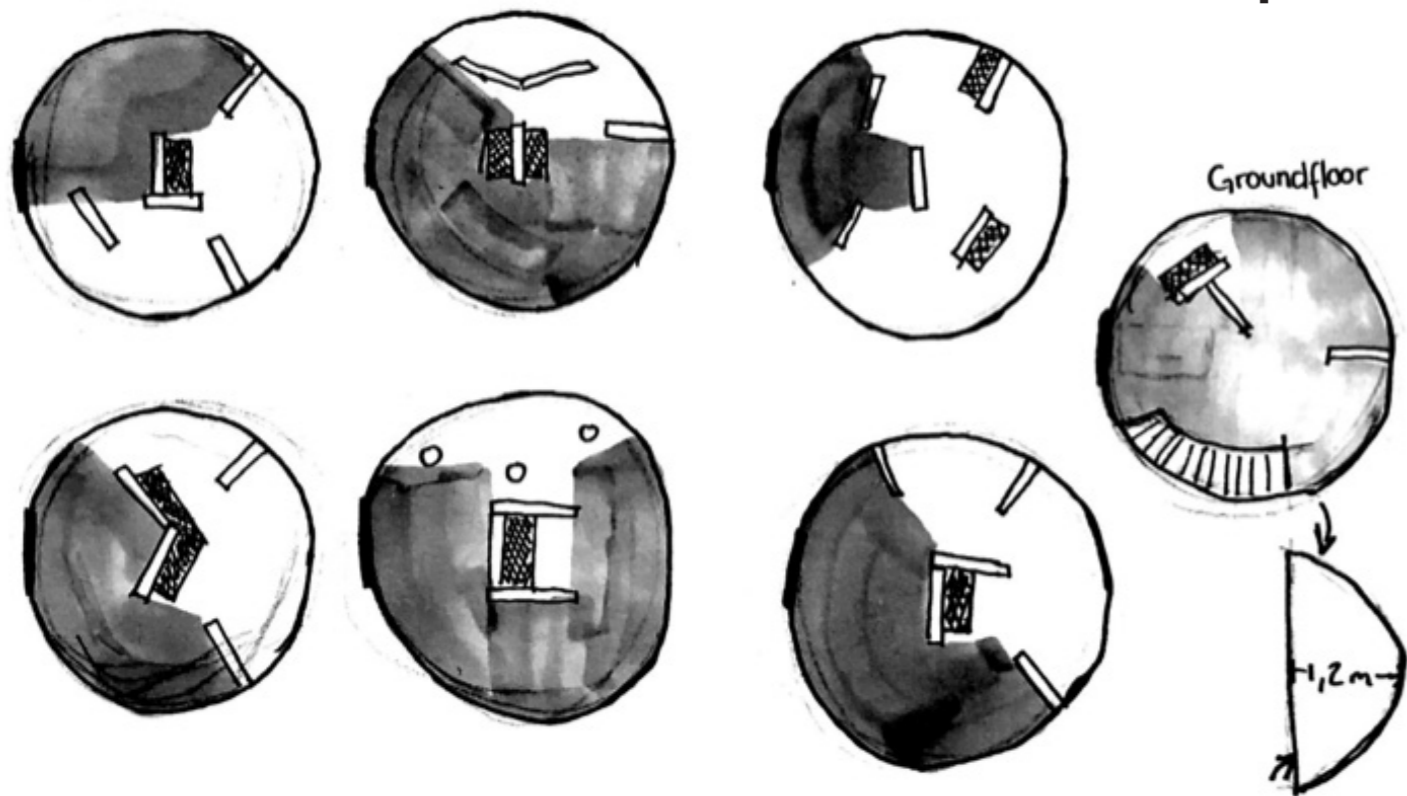
The first decision is to keep the footprint of the old hut and with that the also keep the overall shape of the building.



Space for wheelchairs, birdwatchers and photographers

To make the bird observation hut accessible for the people who are actually using it analyzing the floorplan is important. When putting up obstacles we don't want to make obstacles for wheelchair users. These are examples of floorplans and how the walls affect wheelchair users' routing

- = Seating area (bench)
- = Wall 75cm x 1.10m
- = Entrance
- = Accessible for Wheel Chair
- = pole



Ground floor

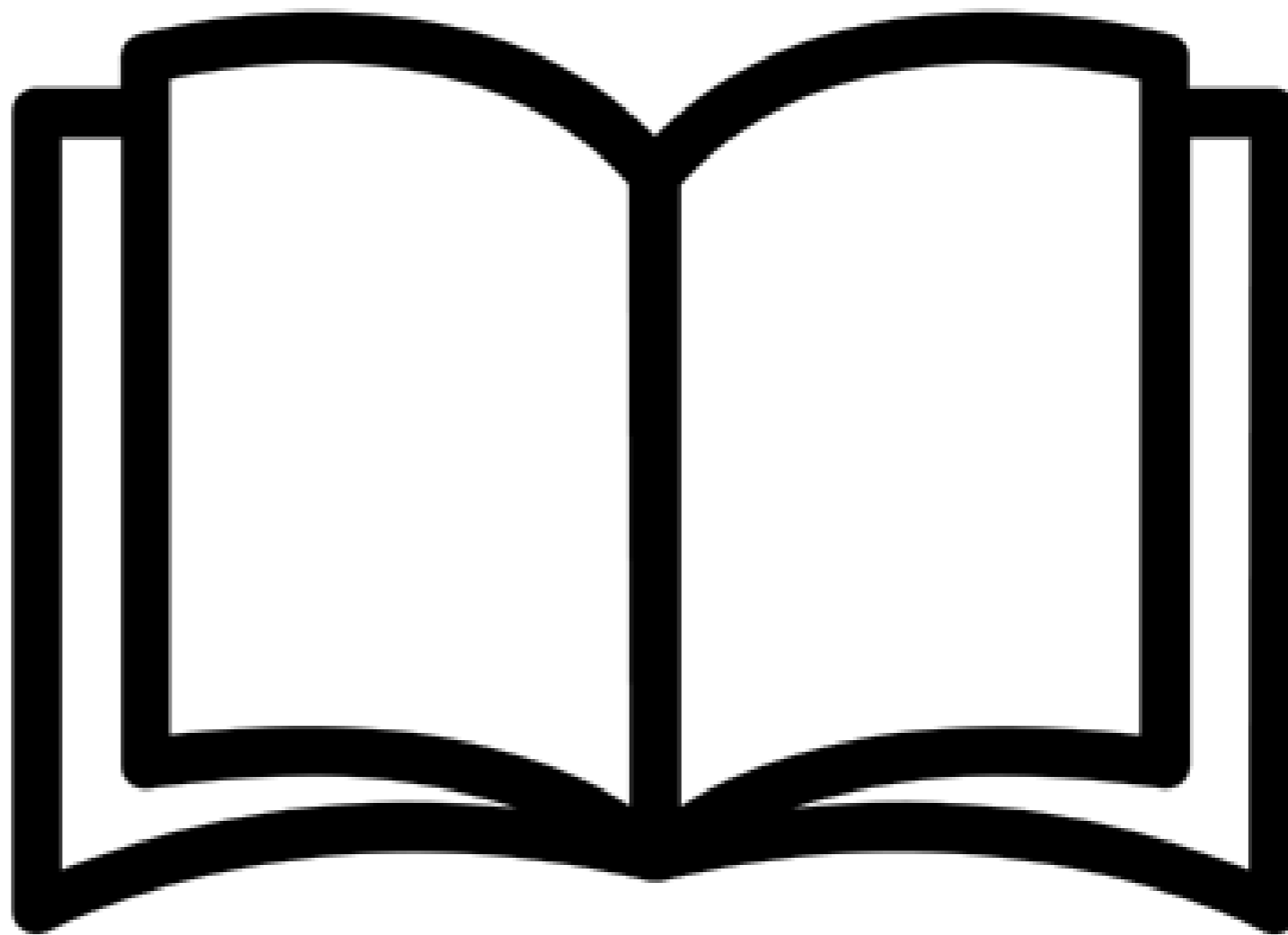


The bird observation hut at the Ezumakeeg unfortunately burned down in the spring of 2020. Presumably a fire caused by young people staying in the hut. Staatsbosbeheer are now ready to get a new bird observation hut built on the same place of the former hut.

The 4/6 Group therefor wanted to focus on how you can make an observation hut "vandal proof" while it still welcomes the people using it and fits into the surrounding area. With the guiding theme: **Included Exclusion**



bidbook





Fokkema, Mortensen, Vuijst and Zinger

Vandal proof bird observation hut



4 / 6 Architects



Introduction

This project takes place in the Lauwersmeer area and is commissioned by Staatsbosbeheer.

Lauwersmeer is a nature reserve in the northern part of the Netherlands on the border of Groningen and Friesland. The area is on a former seabed and has many different kinds of nature and animals. However the Lauwersmeer is mostly popular for its many birds. The reserve is located among one of the biggest migration routes for birds; the East Atlantic flyway.

Around the Lauwersmeer there are 3 bird observation huts. In 2020 there was one observation hut more; the Sylkajút at Ezumakeeg. Ezumakeeg is part of Lauwersmeer and is located on the western side of the reserve. It is a naturally closed off wetland. The Sylkajút was a popular observation hut for birdwatchers and –photographers. Unfortunately the hut was burned down, probably due to vandalism.



Right now Staatsbosbeheer has plans to rebuild an bird observation hut at the same place at Ezumakeeg for birdwatchers and –photographers.

Our goal is to design a new bird observation hut for Staatsbosbeheer that is something new, but still meets the wishes of Staatsbosbeheer and the future users of the hut.

Table of Contents

Our plan consists of a few different steps, that are processed in this bidbook. You can find the following aspects of our project on the pages:

Vision	2
Progress	2
Idea	3
Impression	4
Context	5
Facades	6
Sections	7
Floorplan	8
Details	9
Budget	10



Vision

For the design of the new bird observation hut, we wanted to make something inventive, but also not too different from the known, since the users did not have any complains about the old hut.

As a guiding theme we came to **'Included exclusion'**, which is based on our main focus point for the design. This will be further explained in the chapter 'idea'.

An important aspect for the design is that the nature reserve is part of the Natura 2000 areas. This is a list maintained by the European Commission. These areas are protected by special law and habitat guidelines. For something to be built in such an area it is very important the construction does not affect the natural surroundings.

The most important demands for our design are:

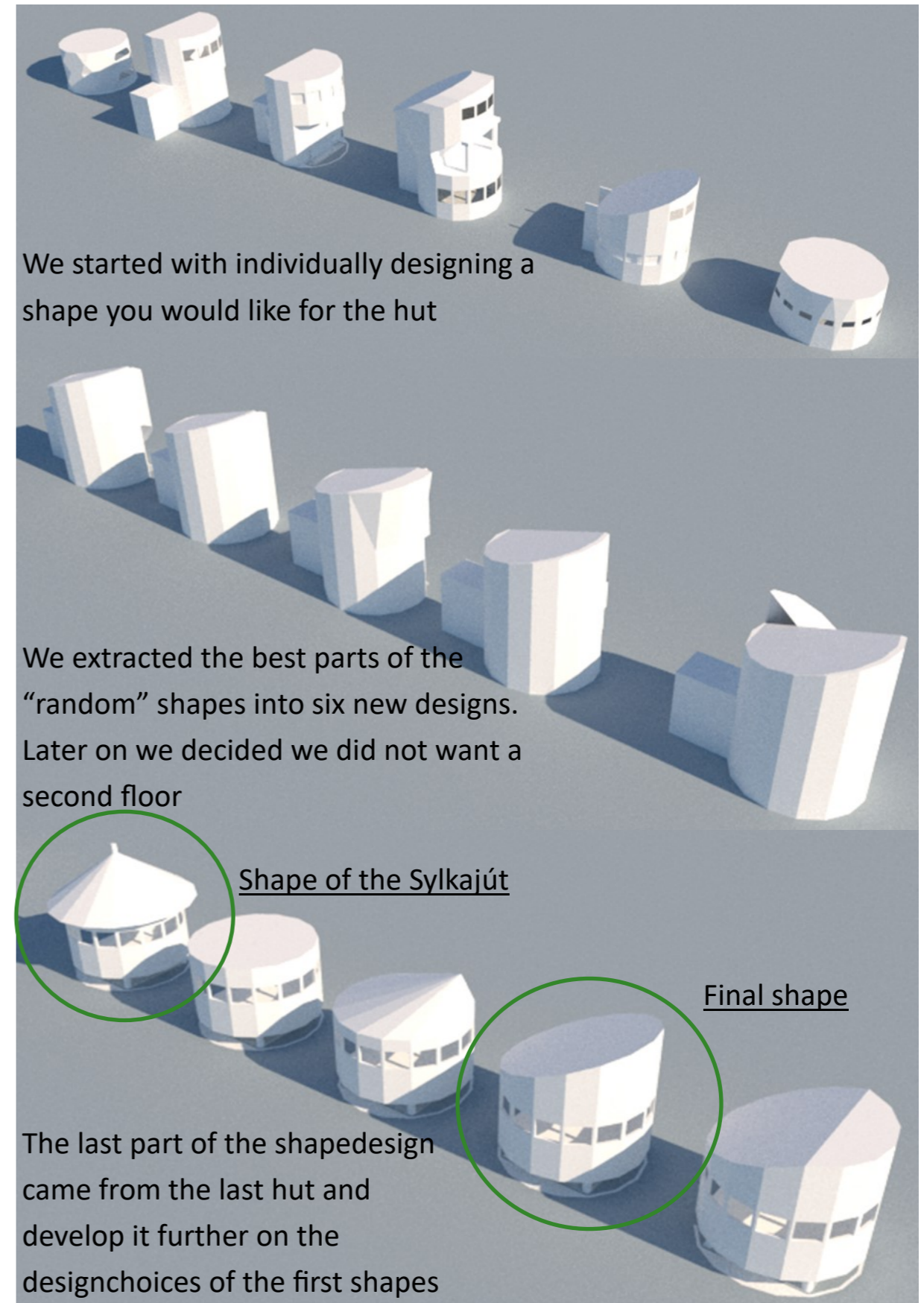
Vandal-proof Easy maintenance 360° view Sustainable Footprint



Staatsbosbeheer has also 3 main principles, which are important to the design: protect, experience and utilize nature.

We want an design with the same purpose, but then built to last.

Process



We started with individually designing a shape you would like for the hut

We extracted the best parts of the "random" shapes into six new designs. Later on we decided we did not want a second floor

Shape of the Sylkajút

Final shape

The last part of the shapedesign came from the last hut and develop it further on the designchoices of the first shapes

In the pictures above you can see the design process based only on the shape of the building.

Idea

The main focus of our design is about making the observation hut vandal-proof.

From our guiding theme **'Included exclusion'**, we decided to add separation walls in our floorplan. The idea behind this guiding theme is including the right users and excluding the people with the wrong intentions. The effect of these walls is:

Less group gathering



Neolife panels

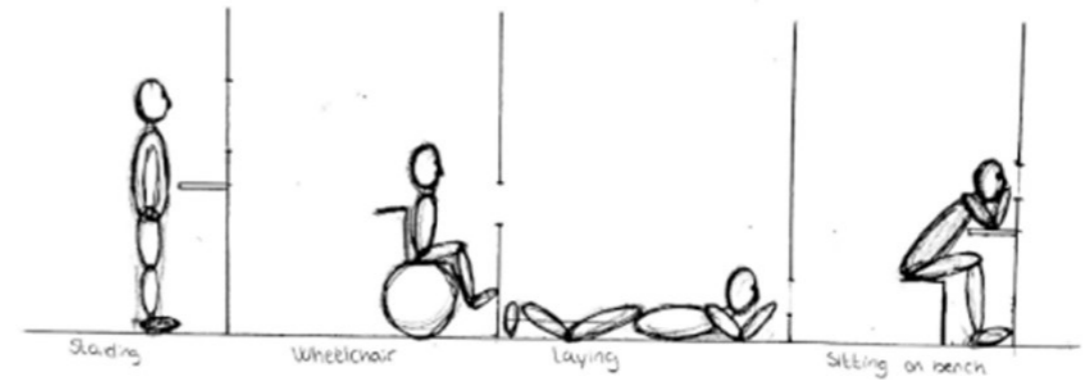
More privacy



Fire retardant



Treated plywood

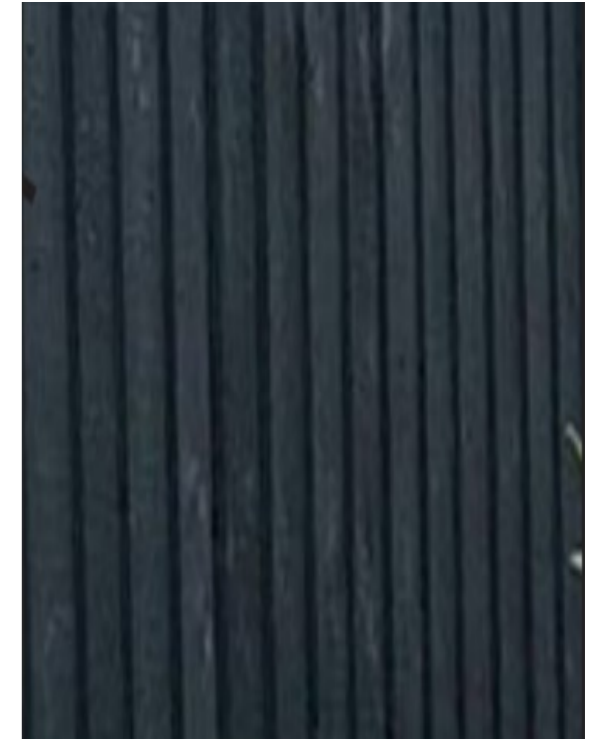


Another important part of our design is the accessibility for everyone that wants to visit the bird observation hut. We made the hut wheelchair accessible and used peepholes on different heights

Green roof



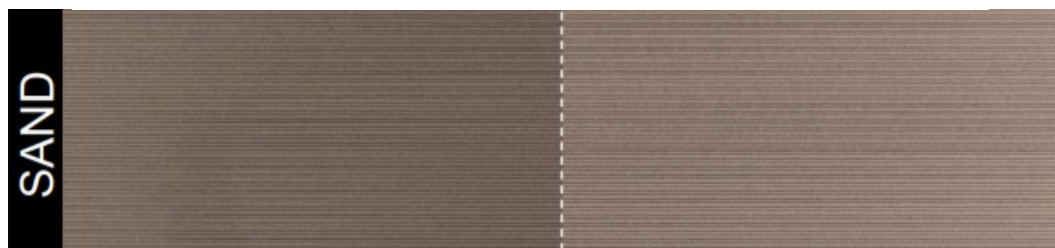
Painted meranti wood



14



Day 1 : Installation—After 10 weeks

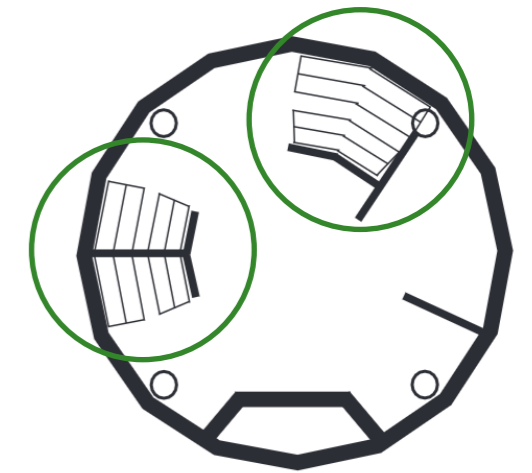
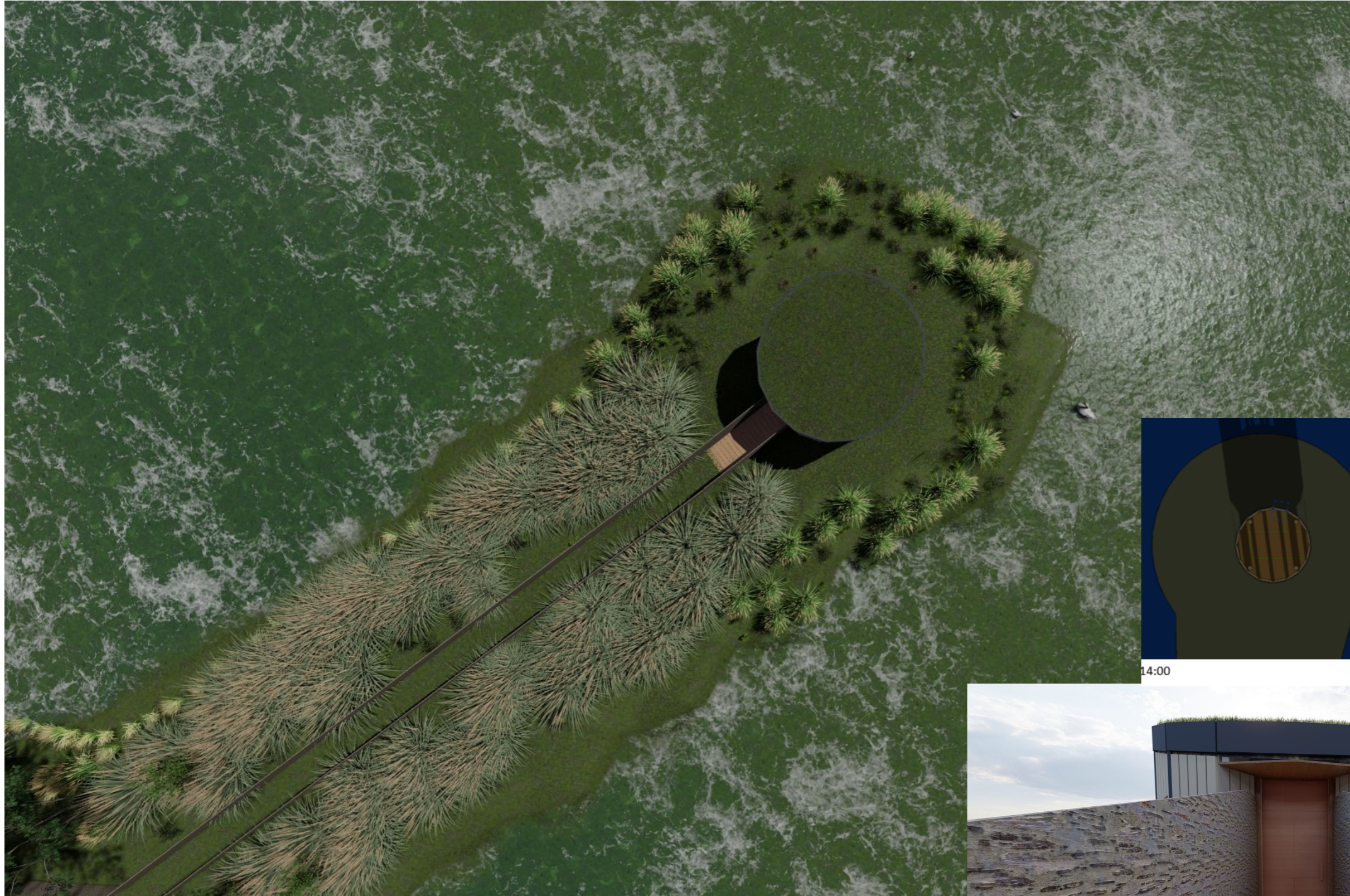


With the guiding theme: **'Included exclusion'** we wanted to include and integrate the hut to the surrounding area through the material. The exterior paneling is Neolife® which has a fire resistance rating Euroclass B. It's made from composite and 10% biosourced wood. We recommend a green roof to "give back" to the surrounding nature and to make the hut blend in from a birds perspective. It's easy to maintain and can be installed with plants already in the area. The separating material between the facade pieces and the roof side is wood painted in RAL 7016

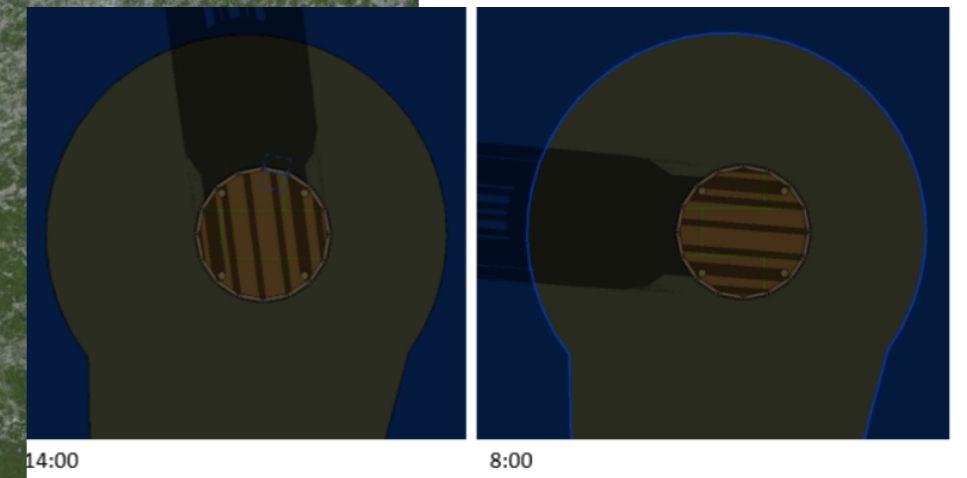
Impression



Context



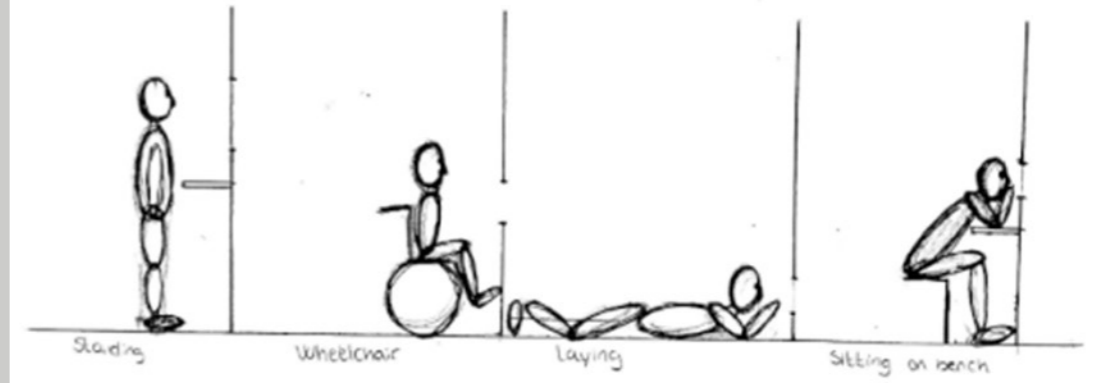
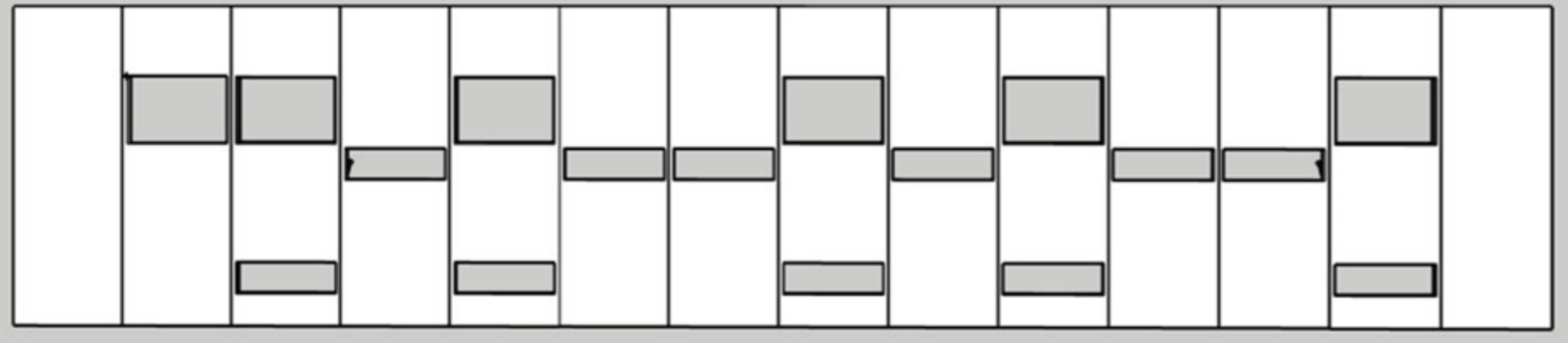
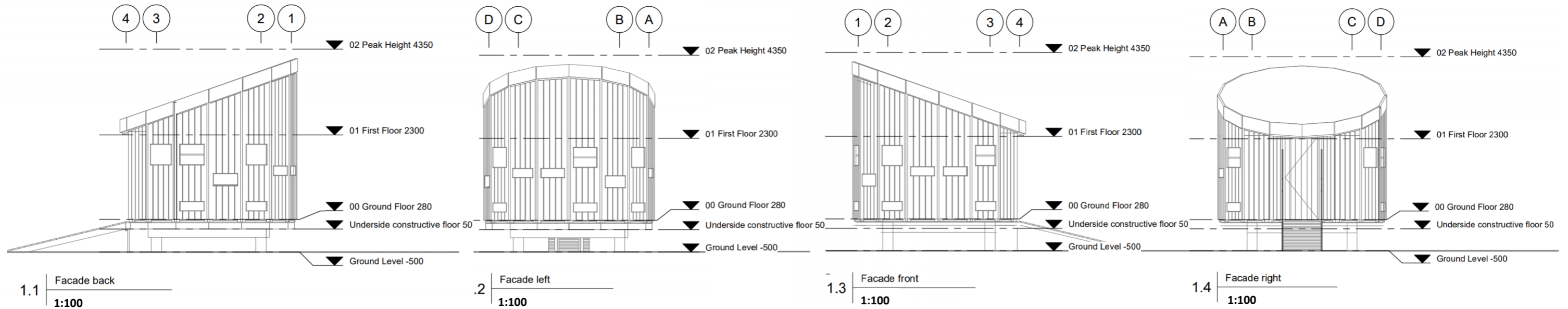
The stand of the sun had an big influence on the floor-plan. We placed the benches in a way you will have the sun in your back.



In this picture you can see the design blends in with the surroundings really well. This integration to the surrounding area makes it not only an comfortable place for the visitors, but also for the birds to be around. The screens around the path are from reed, this way the birds are not disturbed when entering the hut



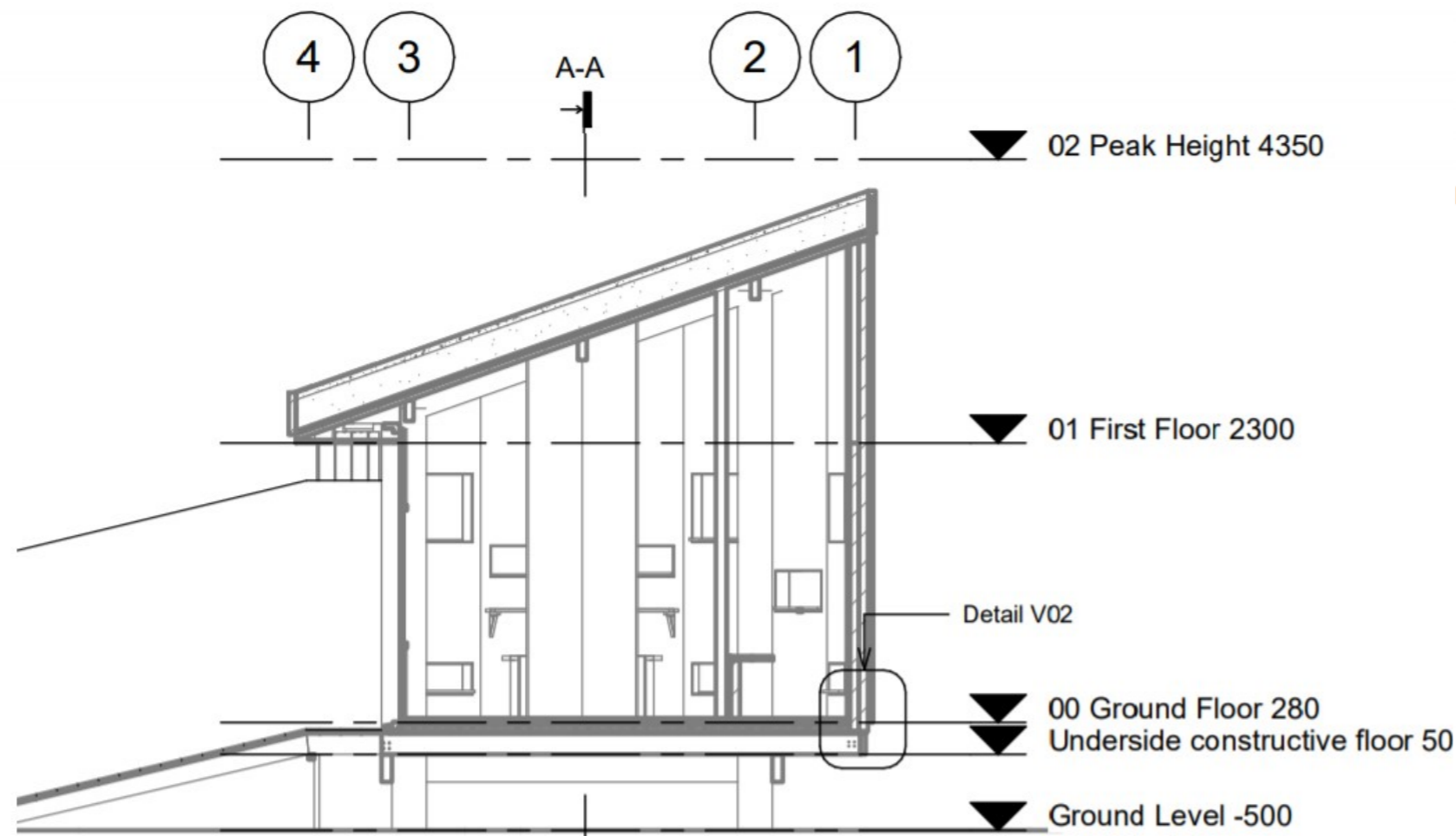
Facades



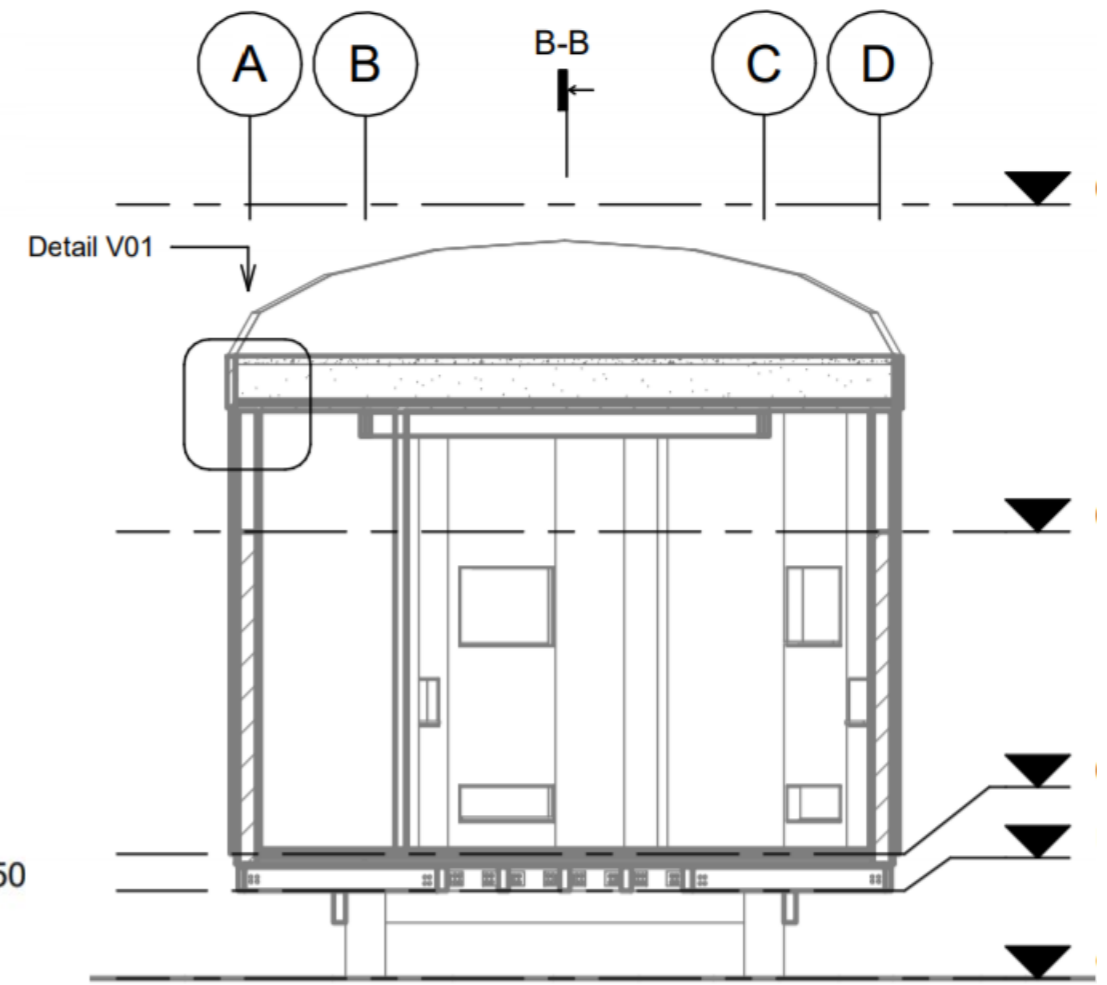
When you unfold the facade panels into one straight line (as above) you can see the pattern of the different peepholes. The holes are composed in a balanced manner. The lowest holes are for photographers who want to take pictures just above the water. The middle holes are for sitting users and persons in a wheelchair. The top peepholes are bigger, this way the length of the person does not affect their view. All peepholes are lockable with shutters.



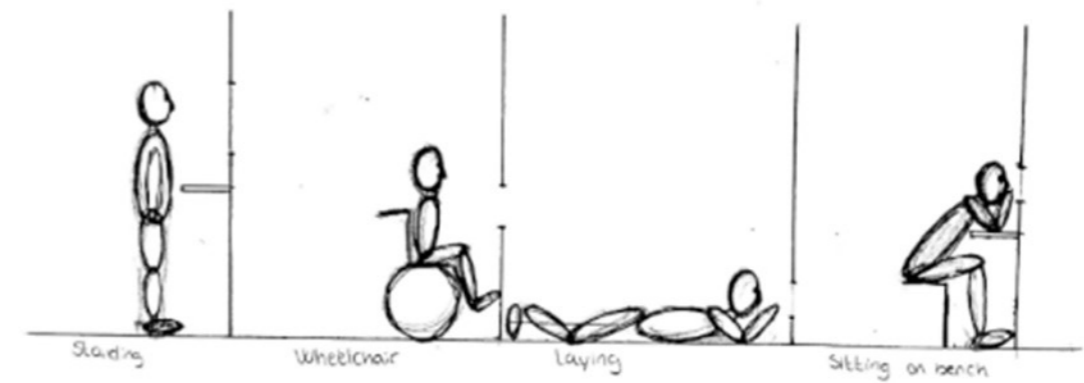
Sections



1.5 Section B-B
1:50

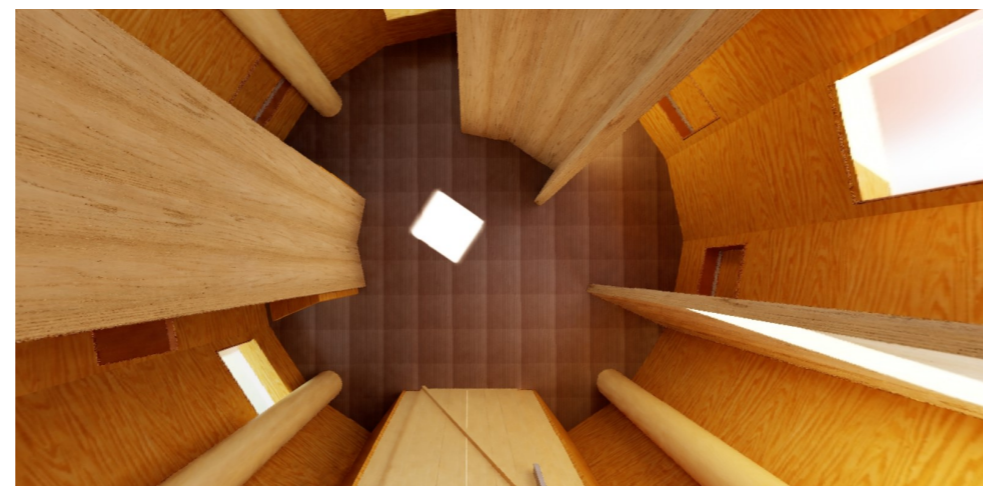
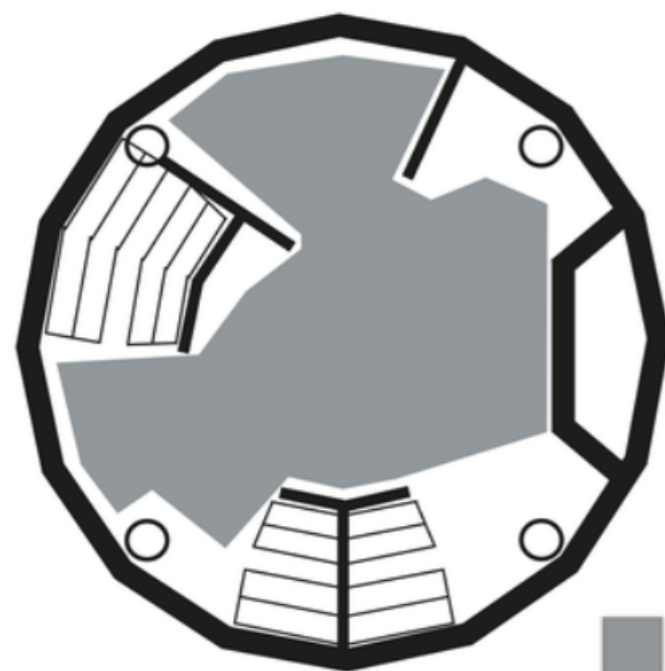
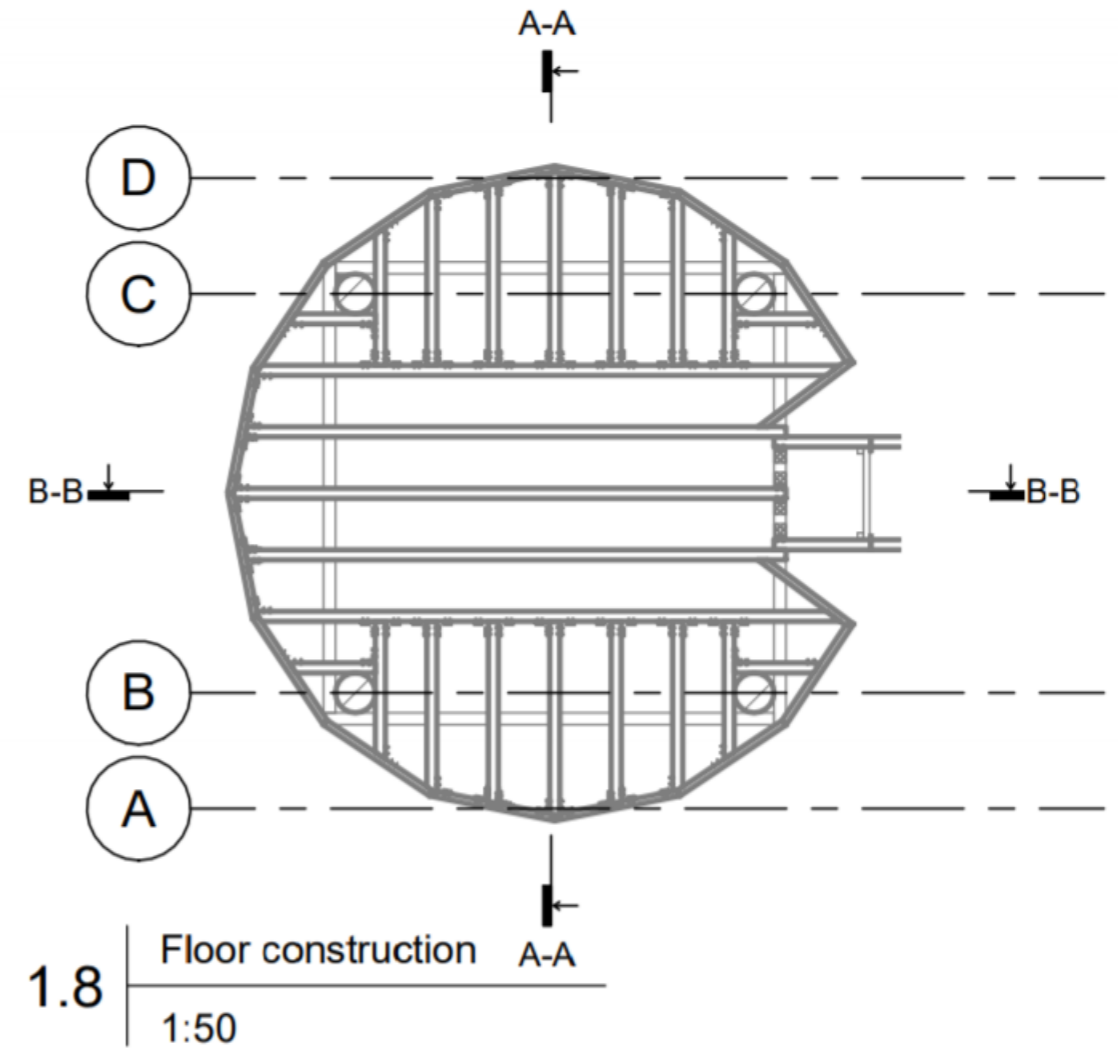
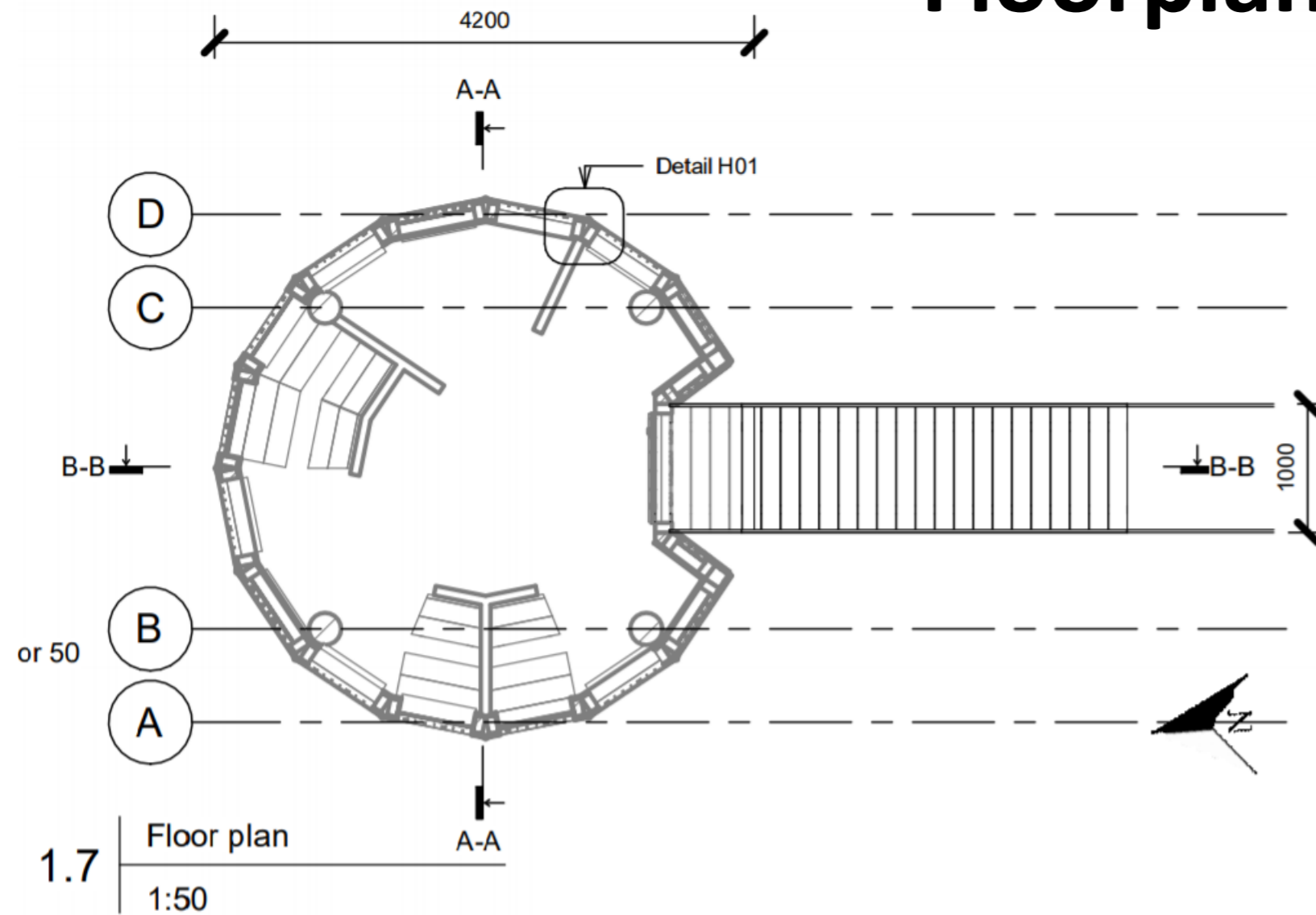


1.6 Section A-A
1:50



In the sections you can also see that the peepholes are on different heights. In the impression you see one of the holes being closed of, this is possible for all peepholes.

Floorplan



We used the exact same footprint as the old hut.

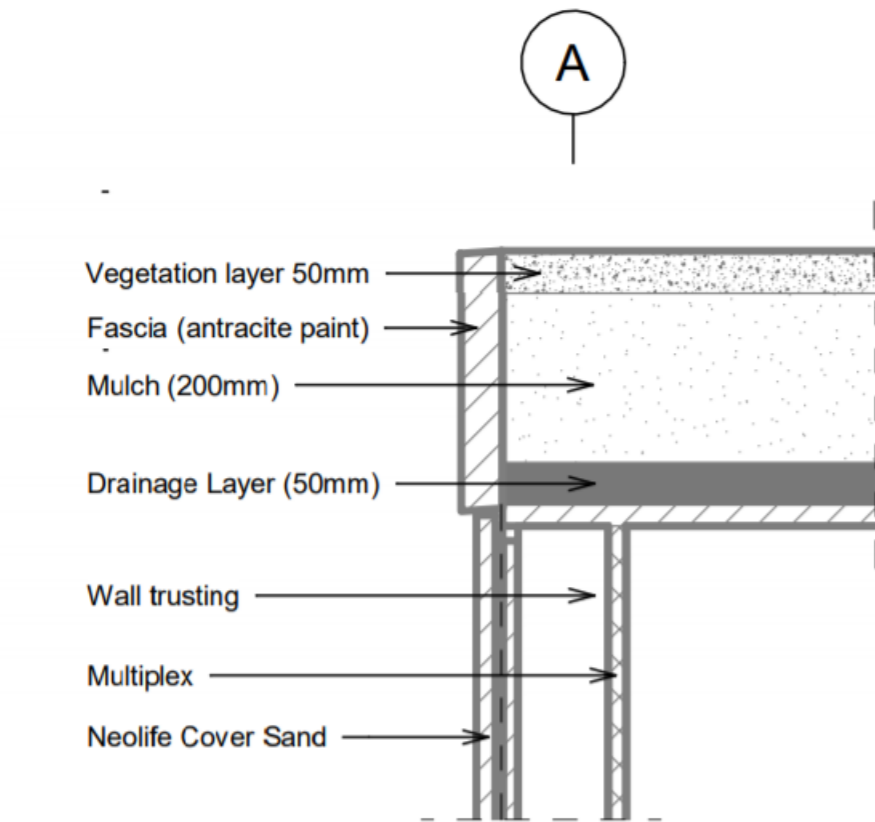
In the floorplan you can see the separation walls that make the observation hut vandal-proof.

Next to 2 out of 3 of the separation walls, there are benches and a small platform to rest your elbows while watching the birds.

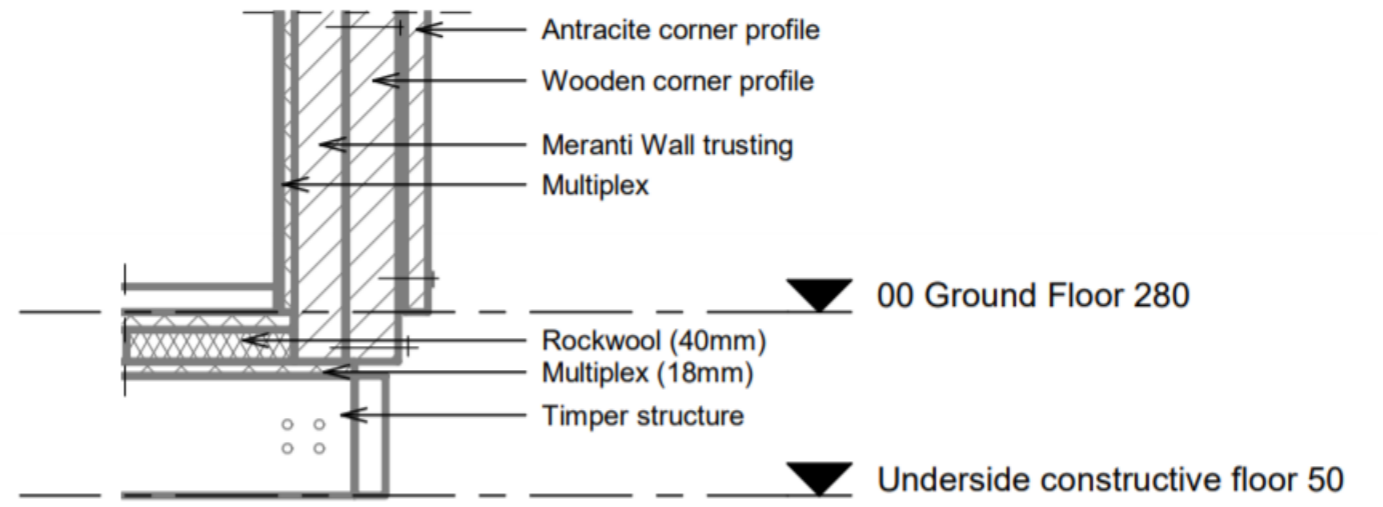
The interior of the hut should be too cramped to gather with groups. The walls and benches create a radial spatial organization and space within a space.

Almost the whole hut is accessible for wheelchair users.

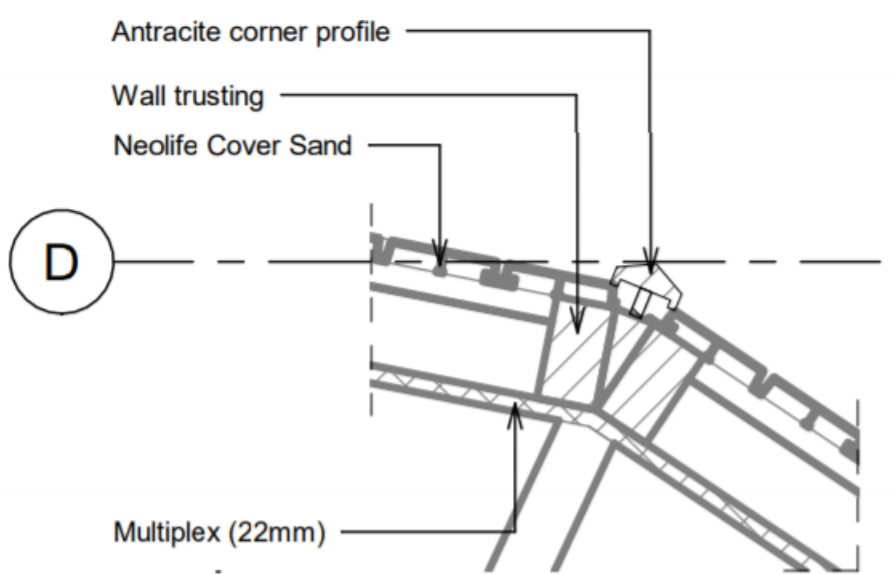
Details



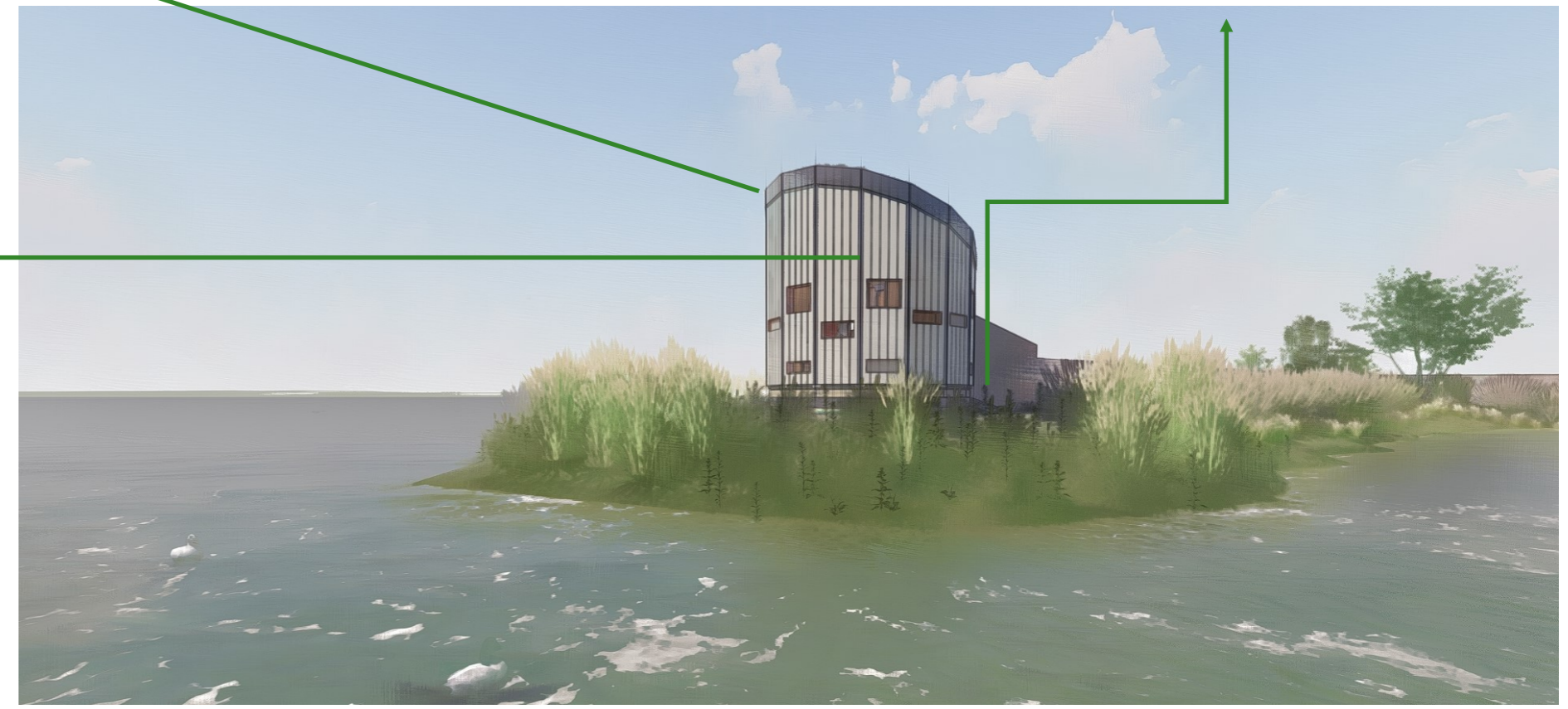
1.10 | Detail V01
1:10



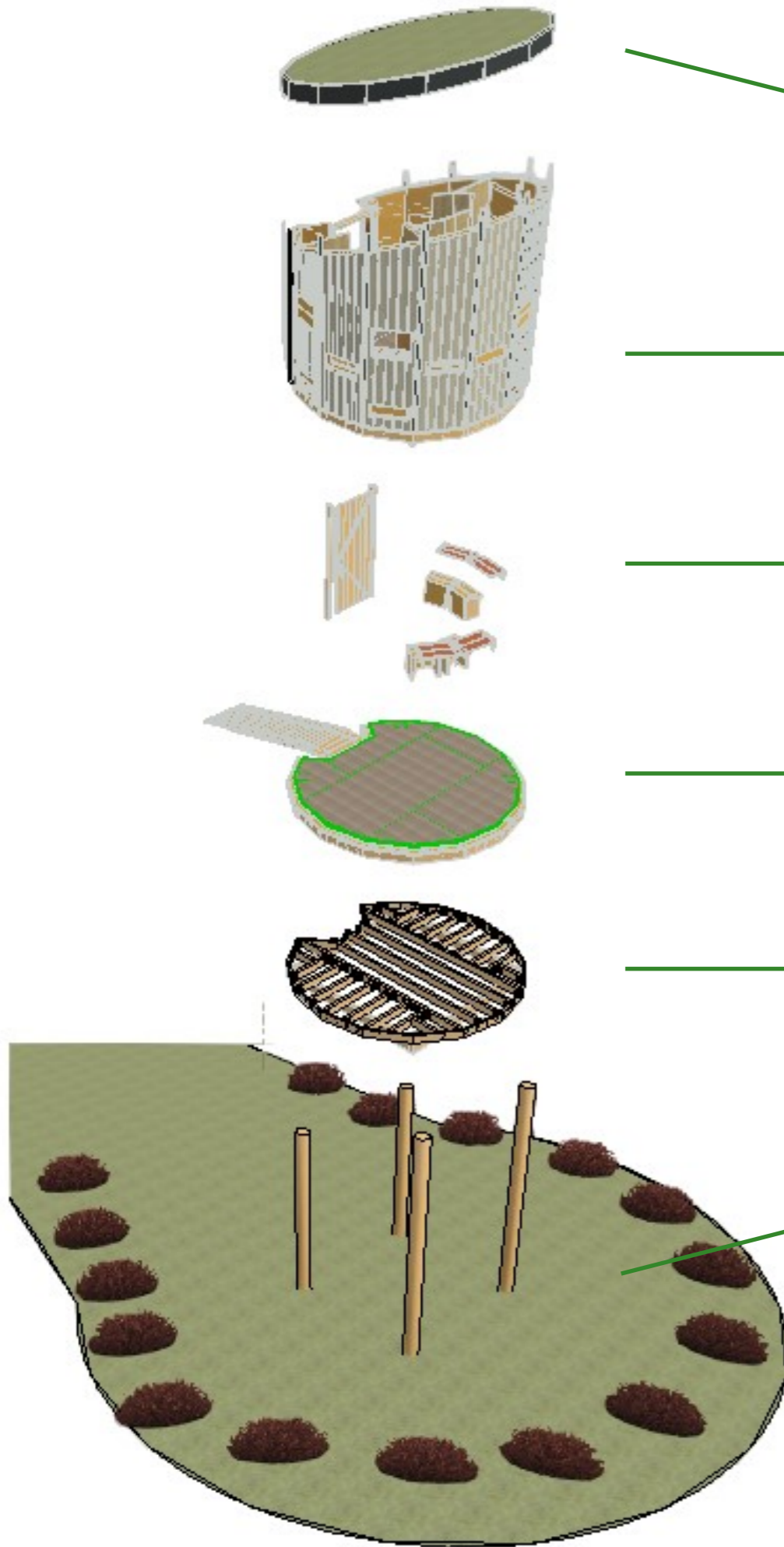
1.11 | Detail V02
1:10



1.12 | Detail H01
1:10



Budget

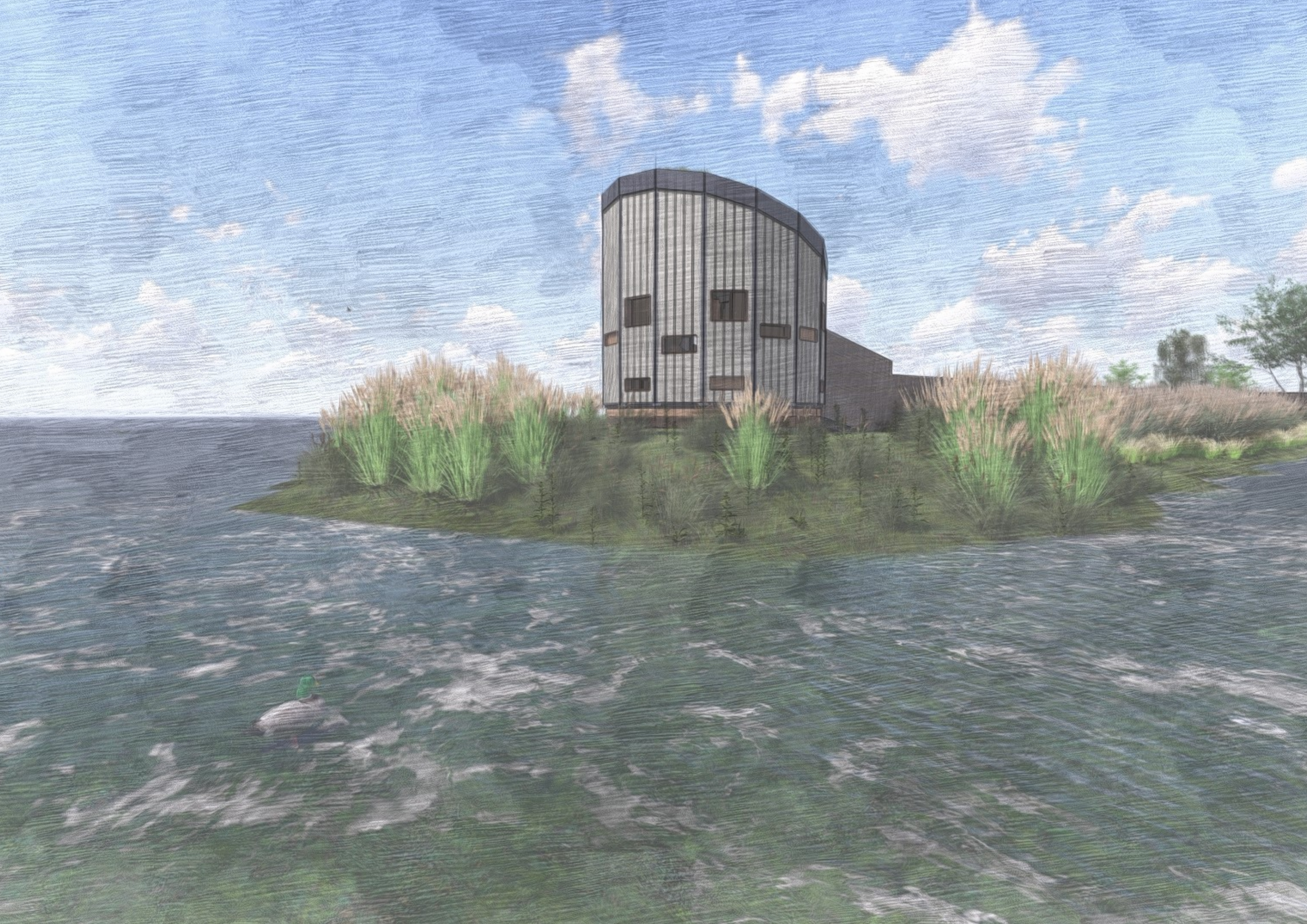


Roof: €1900	
Facades: €8500	
Framing: €2050	
Interior: €680	
Floor: €2390	
Construction: €3700	
Foundation: €3000	
Site layout: €1700	
Total material:	€23.920
Equipment + man-hours:	€15.150
Total:	€39.070

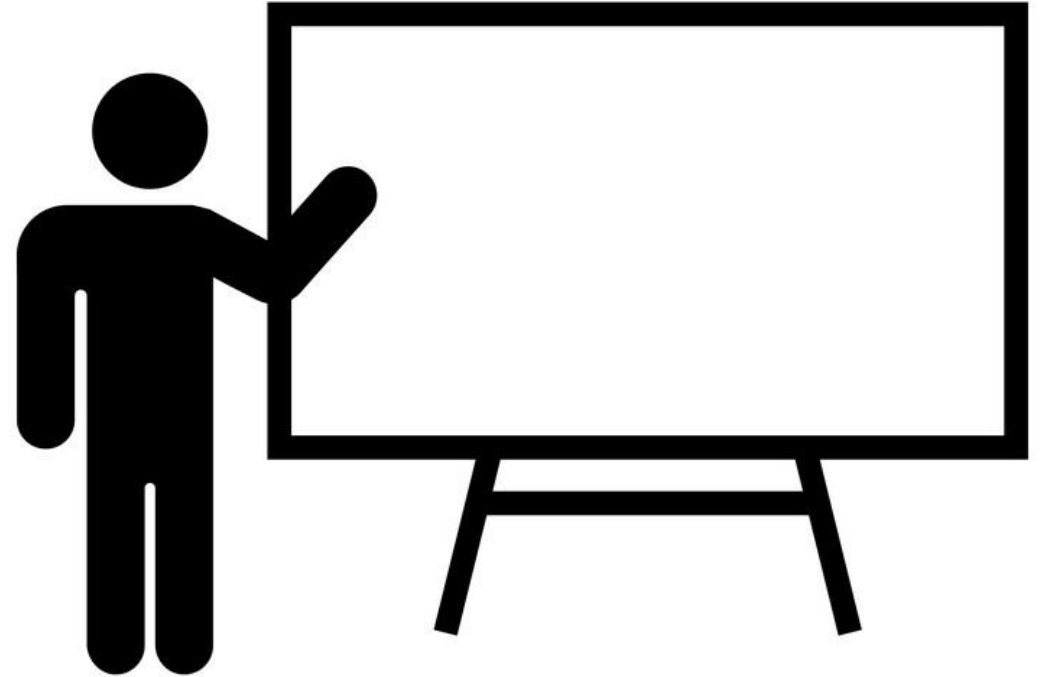
Staatsbosbeheer set a budget of €75.000.
 In the structure left you can see the costs of building our design would fit perfectly within the budget. There is even room for some adjustments or additions.

Our design is sustainable in the use of materials, inventive in its structure and fills the wishes and needs of the future users.

With this design, the Lauwersmeer will get a piece of cherished history back, but in a new, sustainable, vandal-proof skin.



Presentation



To rise from the ashes

A proposal for a new bird hide



Introduction

4 / 6 Architects

Problem





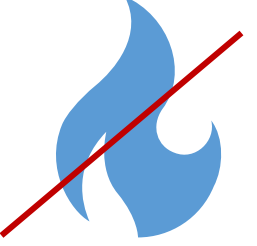
Seperating walls



Less group gathering



More Privacy



Vandal proof

Materialization



Neolife®

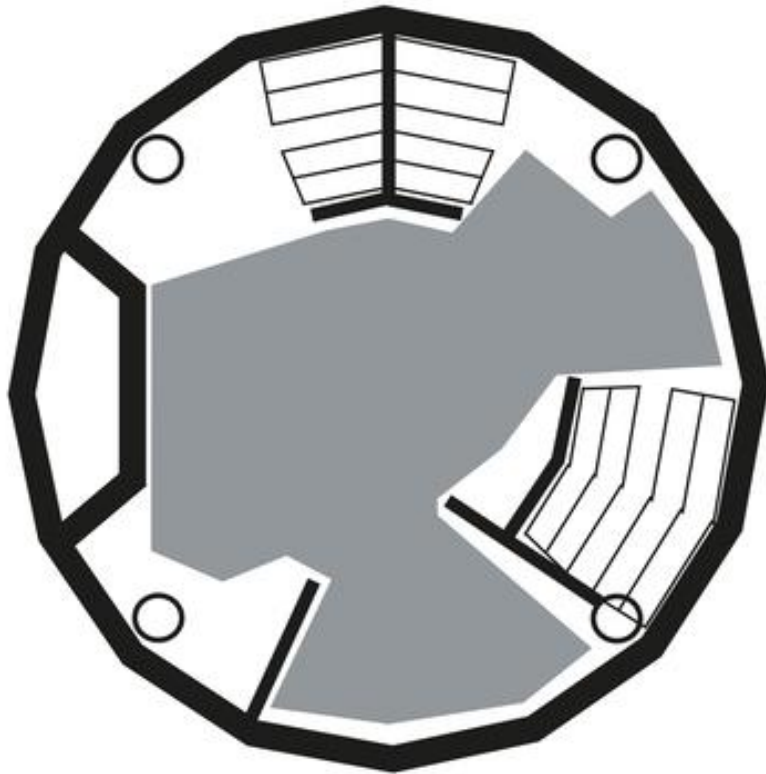


Treated plywood

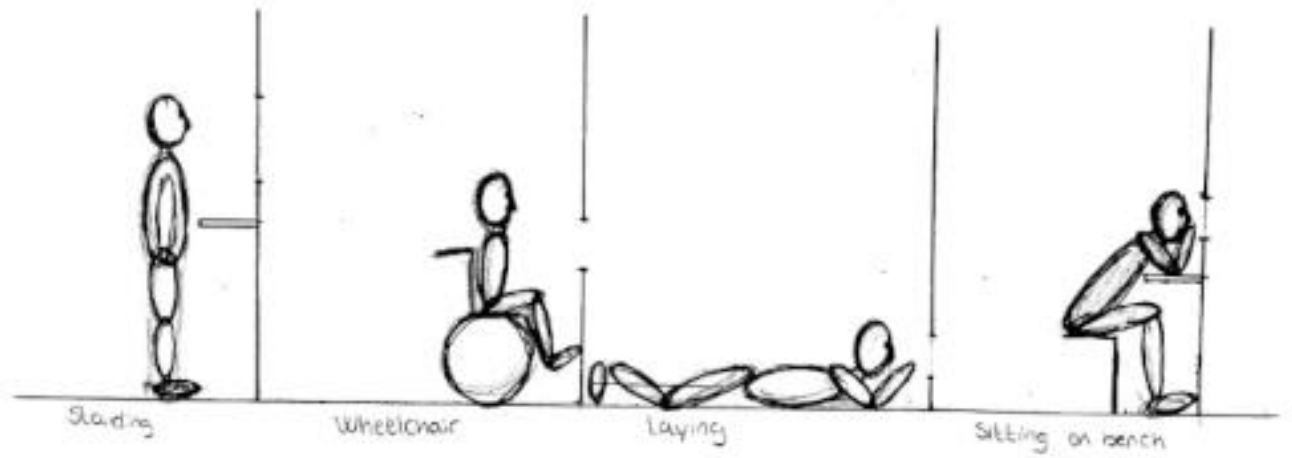


Green roofing

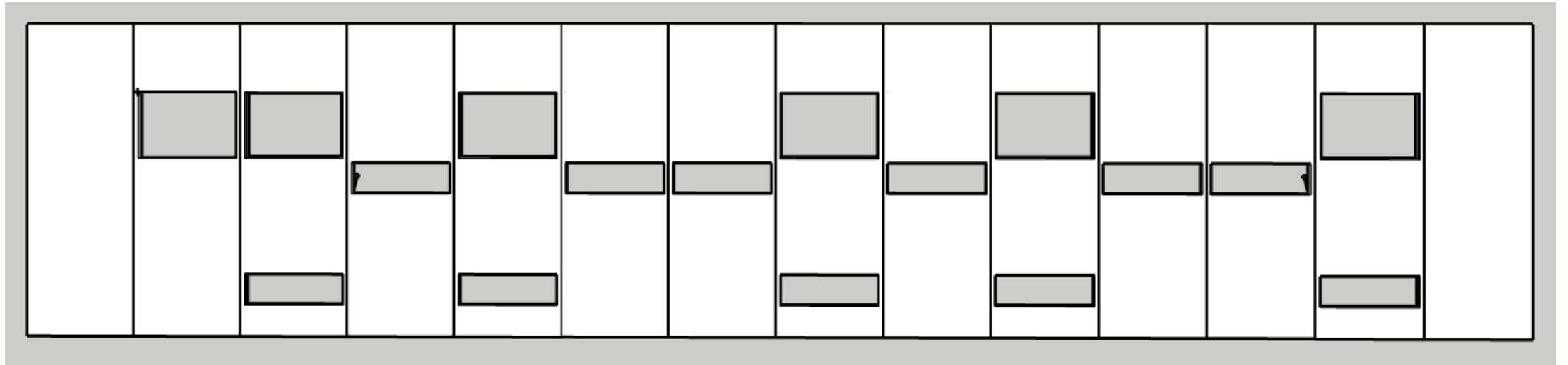
How it works



■ Area accessible for wheelchair users



How it works



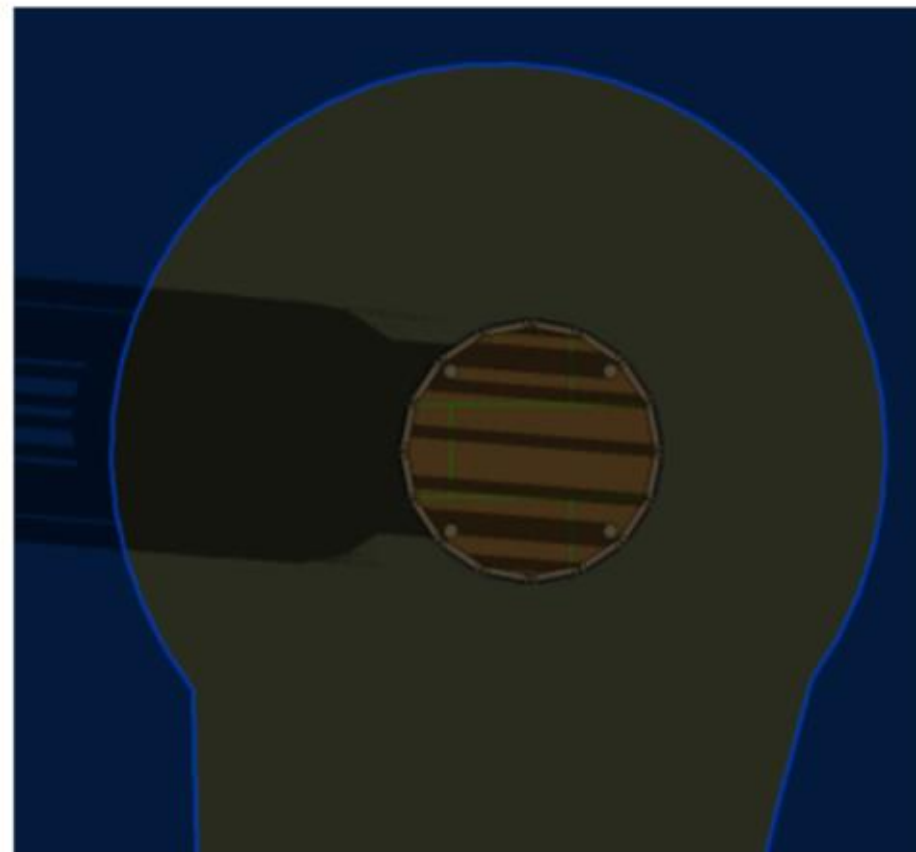




How the sun works



14:00



8:00

Other demands



Easy maintainance



360° view



Ecological

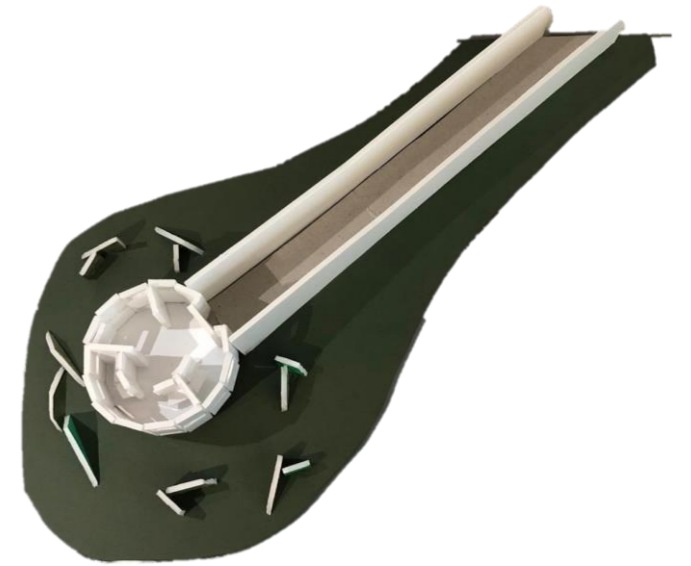
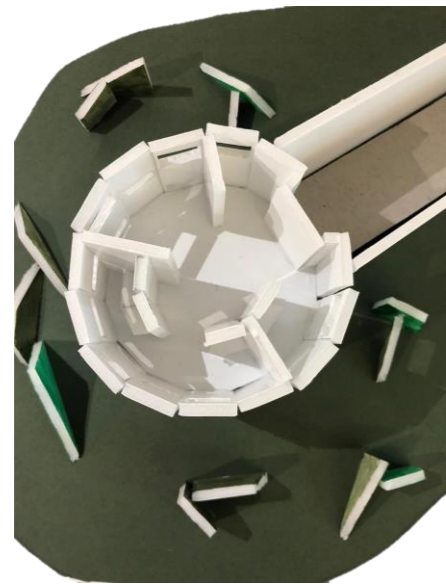
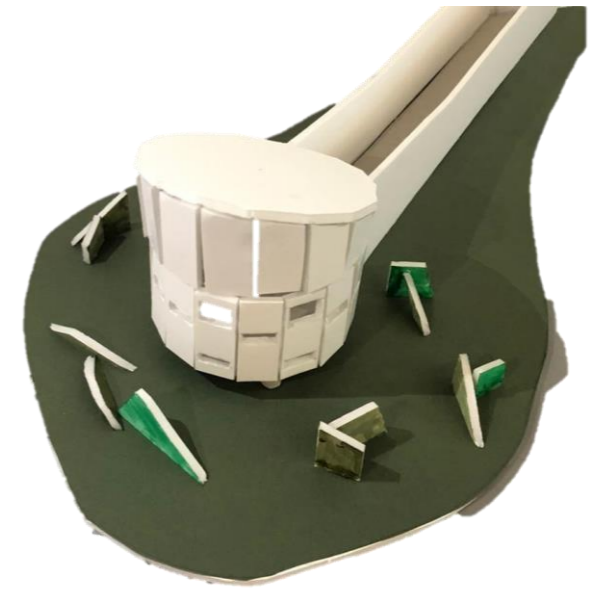
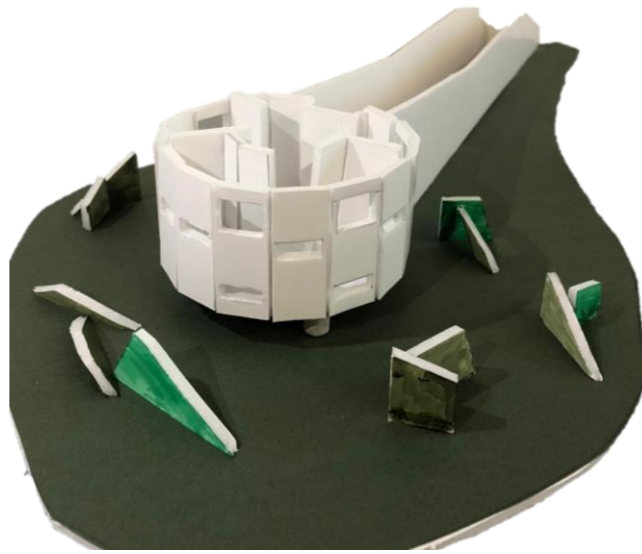


Within the same footprint

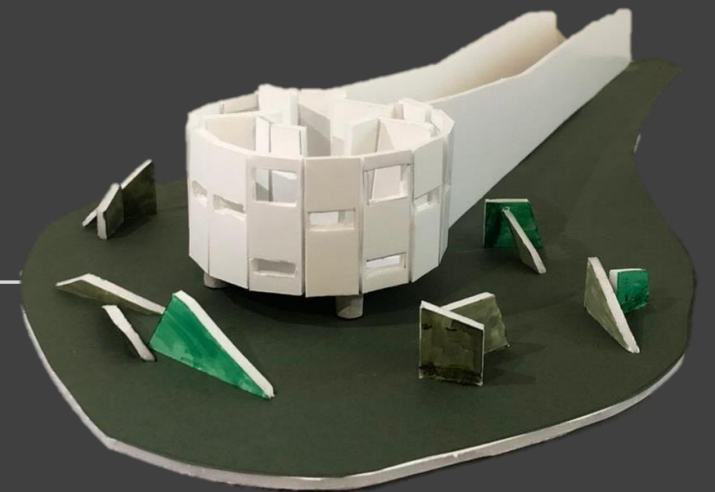
Budget



The same purpose, made to last



The model



Responsibility Areas

Nicky Fokkema

- Bidbook
- Budget
- Research

Stefan Vuijst

- Technical drawings
- Renderings
- CAD
- Location and historical research
- Reference study

Marco Zinger

- Model
- Presentation
- Materialization
- Peepholes

Sofie Bull Mortensen

- Analysis of demands of client
- Floorplan analysis and diagrams
- Walls, benches
- Presentation poster, Process poster

Everybody

- Initial design propositions