# Pegged in Posts and Pillars

by Marius Hauland Næss and Sigurd Strøm Nørsterud

Dystlandhaugen is a farm in Nes, Akershus with ambitions. Ambitions to create a modern and visionary rural environment for urban people desiring qualities the capital city and its land costs cannot offer. In light of the municipality's focus on attractive and sustainable housing, the project seeks to provide new and innovative housing concepts with complimentary functions. A new barn designed and built by students at AHO was completed in June 2016, receiving national and international attention. As a continuation of its concept, the farm land owner Terje Maarud intends to design and build eight housing units on four adjacent plots to the barn. To realise the "urban farming" ambitions, the project develops strong housing concepts to attract creative, resourceful and, to a certain degree, collective people.

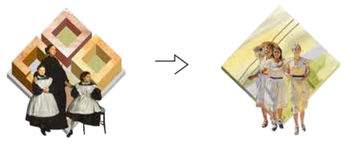
The site is located on a forested height overlooking the characteristic cultural landscape of surrounding open farmlands, making the extensive sky dome an important element of the place. In contrast, the plots are characterised by tall trees and largely untouched forest floor. A large 1980 house and a garage occupy one of the plots, and a small cabin another. Currently the house is rented and in need of renovation, while the cabin may be moved or demolished.

Our concept may be seen in light of the winning proposals "Stev om stav og stolper" by Lund & Slåtto architects and "Bete Beitski" by Turid Haaland for the Norwegian cabin competition by Ål municipality in 1966. Today's commercial developments of the cabin, make use of its principles of prefabricated modules that allow flexible and custom tailored cabins – within a timeless and honest design. These principles are also important for our housing project at Dystlandhaugen, in addition to a place-specific approach. The vertical quality of the immediate plots in contrast to the horizontality of the surroundings was important to work with for our proposal.

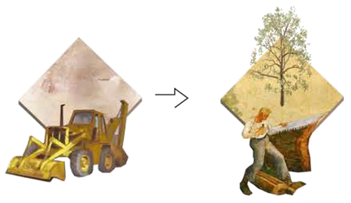
The housing units explore a concept of living in vertically stacked spaces, accommodating a range of activities, functions and atmospheres. The construction consists of 16 columns in a grid of four 3x3m areas spaced 1m apart. The load bearing columns allows flexibility in the vertical positioning of slabs, providing clear boundaries between spaces and a variety of ceiling heights. All vertical communication is facilitated in the 1m in-between space, creating a sequence of spaces from the forest floor to the tree tops. Each unit may be accessed on the first floor from a common raised walkway and platform above the forest floor.

To maintain the principles of modularity in a vertical context, the wall elements, stairs and window openings have a common denominator of 175mm. This building set accommodates a range of different floor plan solutions and unit sizes to respond to the specific place and client's requirements. The building aspires to minimise its footprint by being raised on pillars and its construction time with pre-fabricated elements. Timber is the main material throughout the project, exploring its benefits in uses from construction to finishes.

AMBITIONS



FROM URBAN CITY LIFE TO URBAN LIFE ON THE OUTSKIRTS

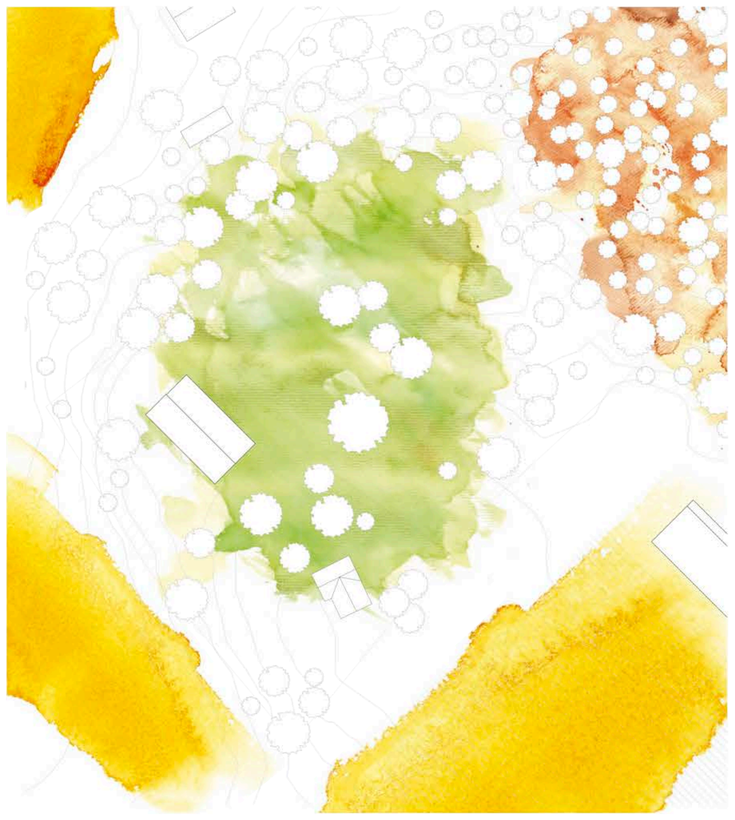


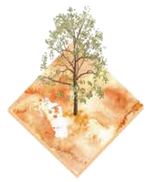
FROM EXPLOITATION TO CAREFUL INTERVENTION

FROM PASSIVE SPECTATOR TO ACTIVE PARTICIPANT

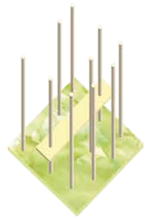
FROM INDIVIDUALITY TO COLLECTIVISM

SITE QUALITIES

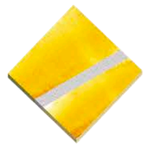




NATURAL LANDSCAPE

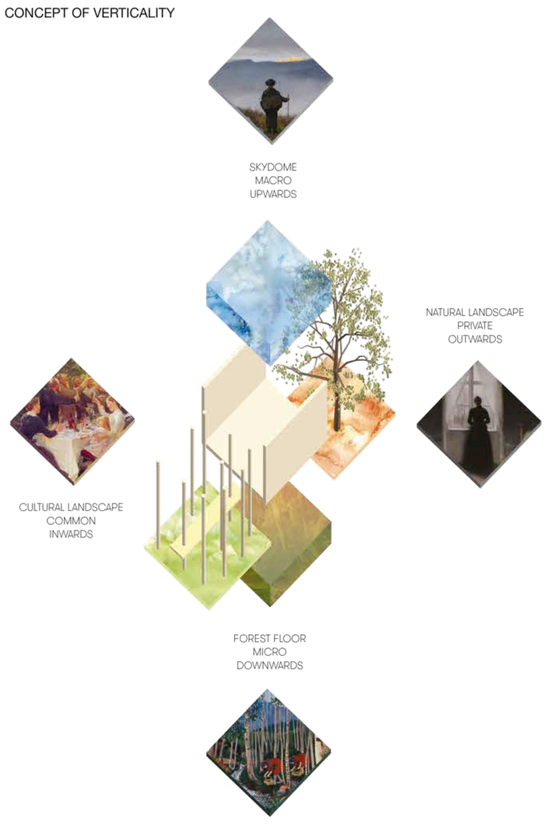


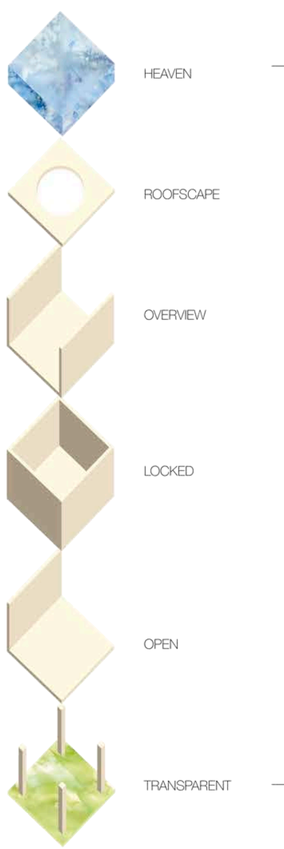
INHABITED LANDSCAPE

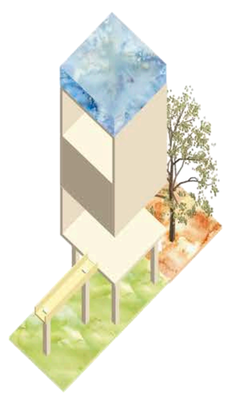


CULTURAL LANDSCAPE

CONCEPT OF VERTICALITY



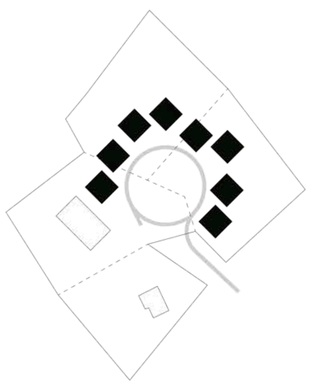
DENSITY FIGURES

| | |
|---|---|
| Typology: | cluster / detached |
| Stories: | 3-4 floors |
| Site area: | 5 492 m2 |

ALTERNATIVE 1

Our chosen solution with a high degree of shared space.

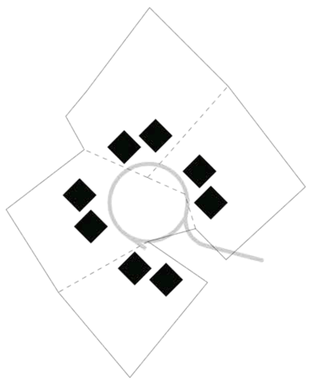
| | |
|---|---|
| Site area: | 5 300 m2 |
| Units: | 8 dwellings + existing |
| Gross area: | 1 574 m2 |
| Footprint: | 662 m2 |
| FAR: | 29,7 % |
| COV: | 12,6 % |



ALTERNATIVE 2

Solution with eight units - two units per site. No buildings kept.

| | |
|---|---|
| Site area: | 5 300 m2 |
| Units: | 8 dwellings |
| Stories: | 4 floors |
| Gross area: | 1 282 m2 |
| Footprint: | 475 m2 |
| FAR: | 24,2 % |
| COV: | 8,6 % |



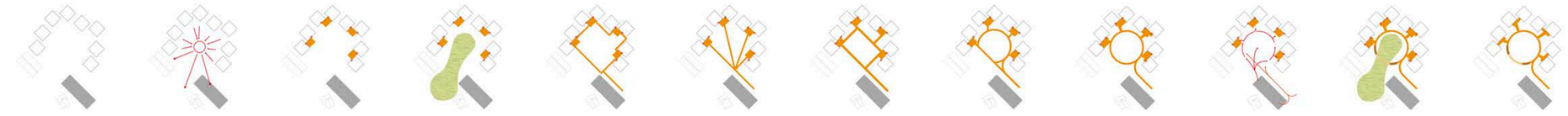
ALTERNATIVE 3

Solution with six new units - kept old house.

| | |
|---|---|
| Site area: | 5 300 m2 |
| Units: | 6 dwellings + existing |
| Stories: | 4 floors |
| Gross area: | 1 212 m2 |
| Footprint: | 496 m2 |
| FAR: | 22,9 % |
| COV: | 9,36 % |



DEVELOPMENT OF WALKWAY DESIGN



1. Building volumes + parking lot
2. Orientation towards a common area
3. Entrances and shared terraces
4. Connecting the garden area and the common area
5. Walkways along the facades providing max untouched space in the middle
6. Shortest connections without an angled system
7. Shortest connections with a 45 degree angled system
8. Cleaner system connecting the shared terraces and providing untouched space
9. Cutting sharp angles and shorten distances
10. Arrows showing minimum movement to connect to the different houses
11. Connecting the south part of the walkway system to the ground
12. Re-shaping the terraces so they follow the logic of the circle form

SITE PLAN AND STRATEGY

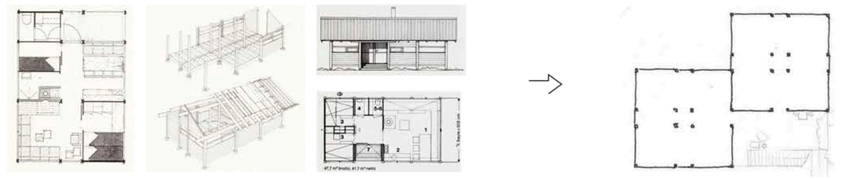
1:200

## LANDSCAPE SECTIONS

1:500


## HISTORICAL REFERENCE

The project takes insipration from the construction logic and circulation strategy of the 1960s "Älhytta" and "Bete Beitski".

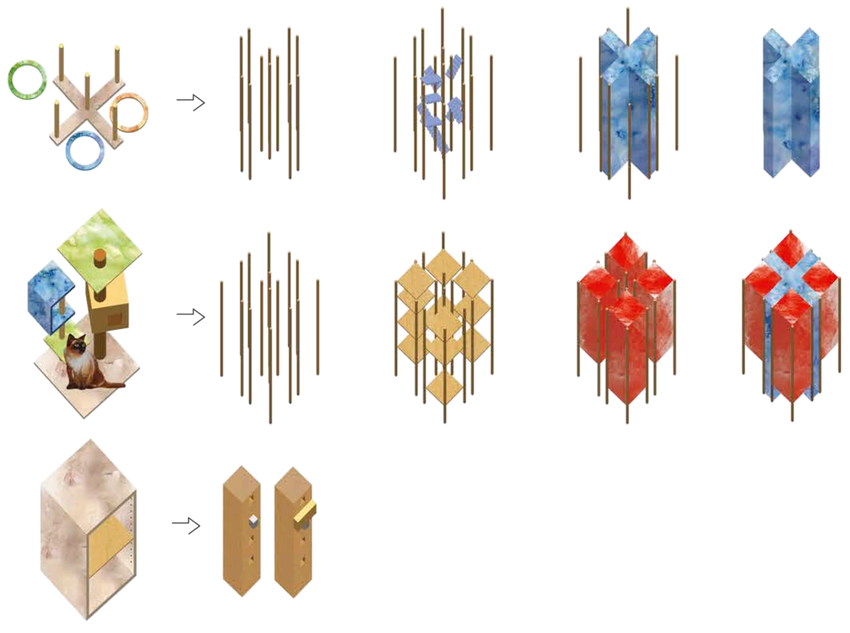


## CONCEPTUAL COMPARISONS

A game of ring toss – vertical circulation in a transparent core through the building.

A cat tower – vertical living on the landings of the stair.

A flexible shelf – levels and ceiling heights free to position on pegs in the columns.



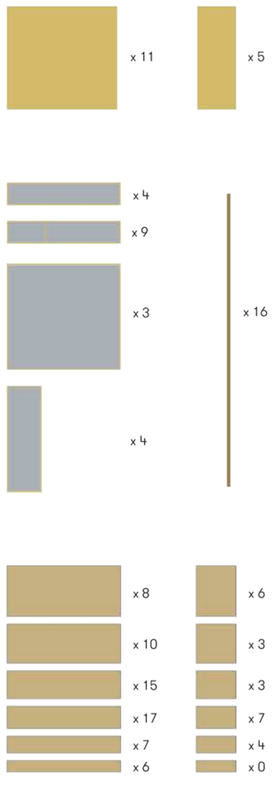
## CONSTRUCTION ELEMENTS

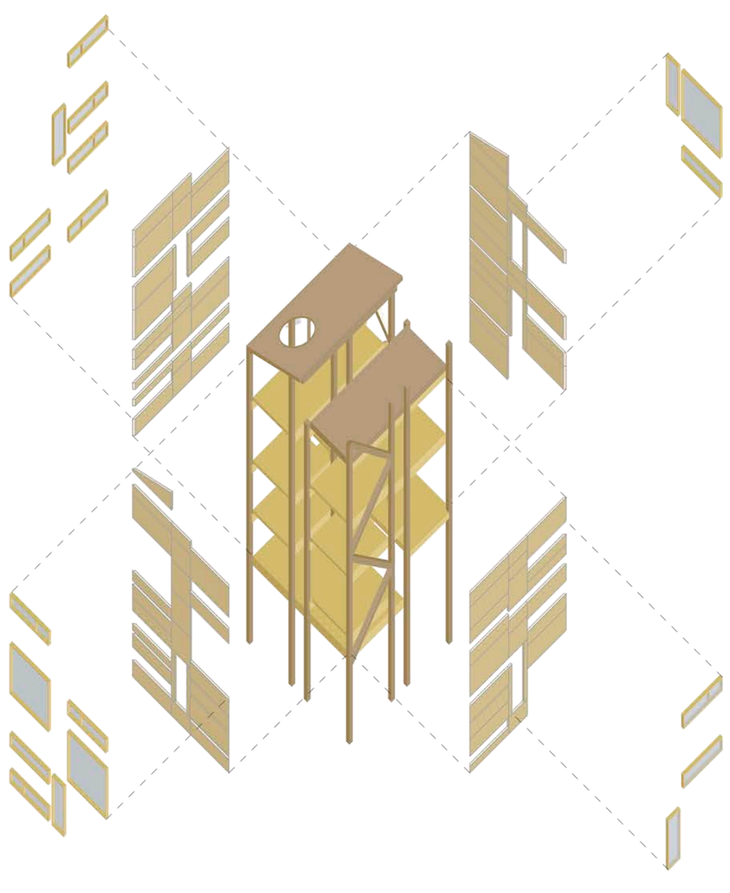
Slabs are composed of brettstapel construction into two compatible sizes.

Columns rest on steel poles with minimal intervention on the site.

Windows are floor-to-ceiling or low and wide strips, flexible in position.

Walls are composed of elements in modules of 175mm, non-loadbearing from slab to slab.



## WALKWAY CONSTRUCTION

ALTERNATIVE 1

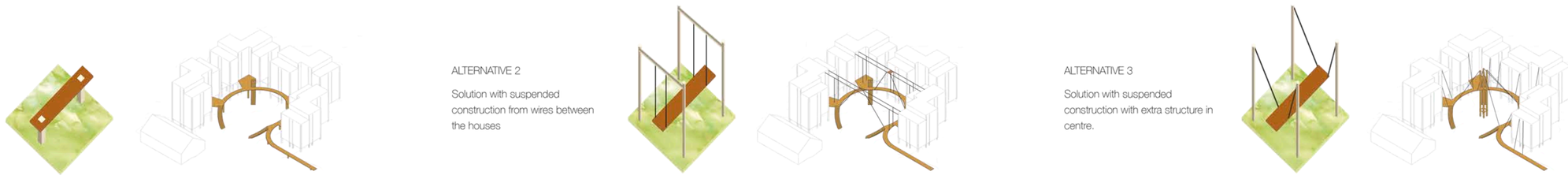
Our suggestion with walkway supported on pillars.

ALTERNATIVE 2

Solution with suspended construction from wires between the houses

ALTERNATIVE 3

Solution with suspended construction with extra structure in centre.



## COMMON FACILITIES AND ACTIVITIES

KVELDSSOLA

VERKSTEDET

FELLESHUSET

FRUKTHAGEN

LANGBORDET

SKOGEN

BLÅBÆRSKOGEN

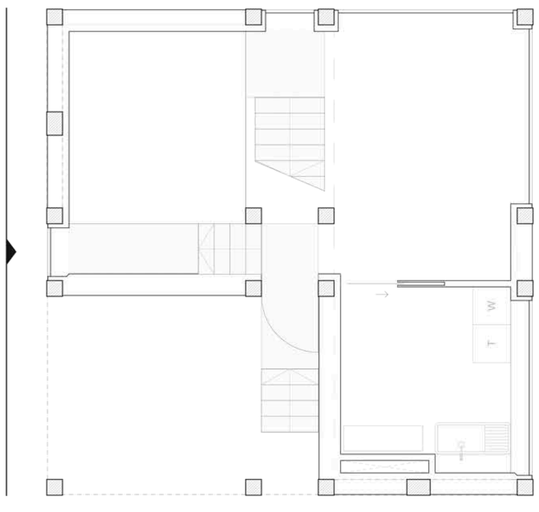
GAMLEHYTTA

LÅVEN

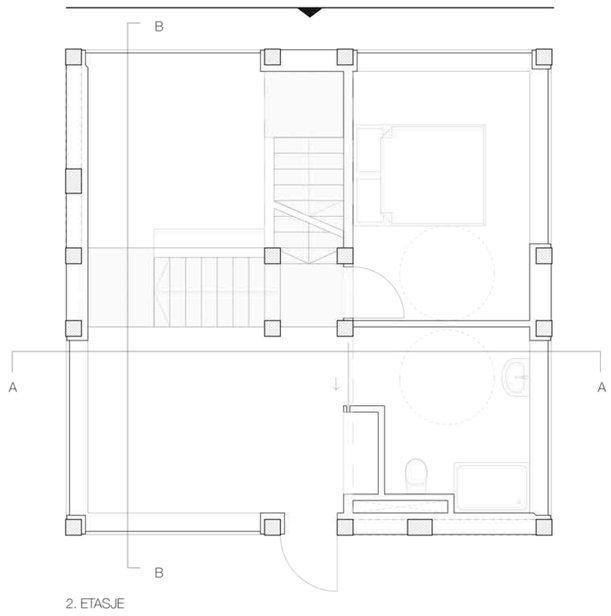
GRØNNSAKSHAGEN

FAÇADES
1:50

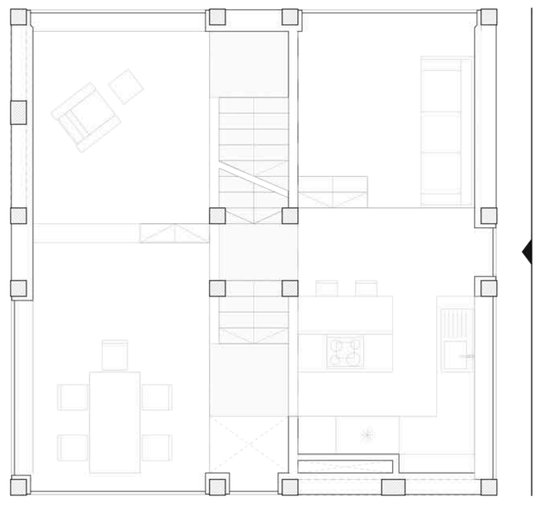
PLANS
1:50



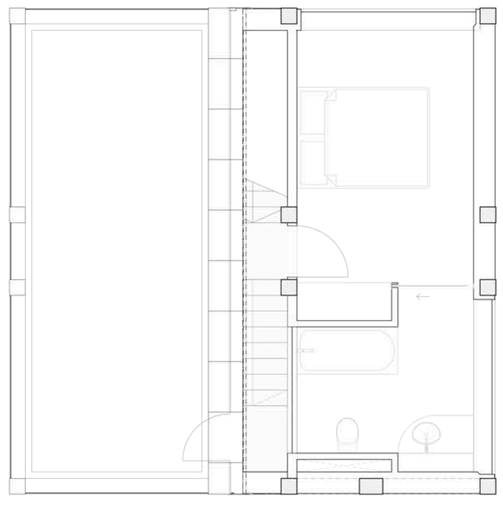
1. ETASJE




2. ETASJE



3. ETASJE

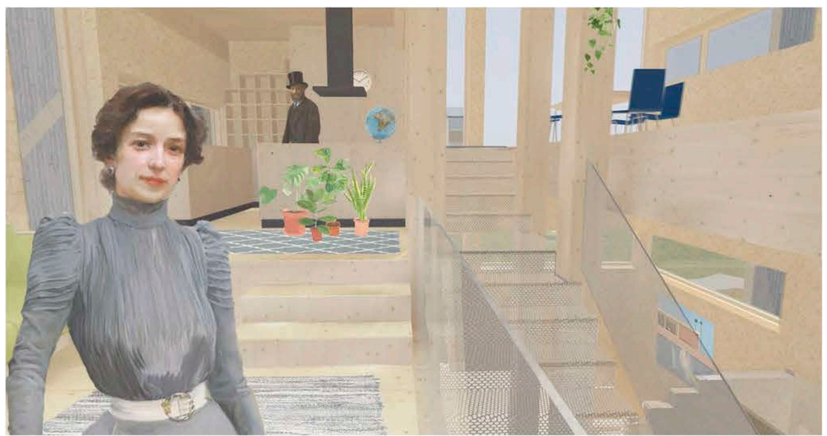


4. ETASJE / TAKTERRASSE

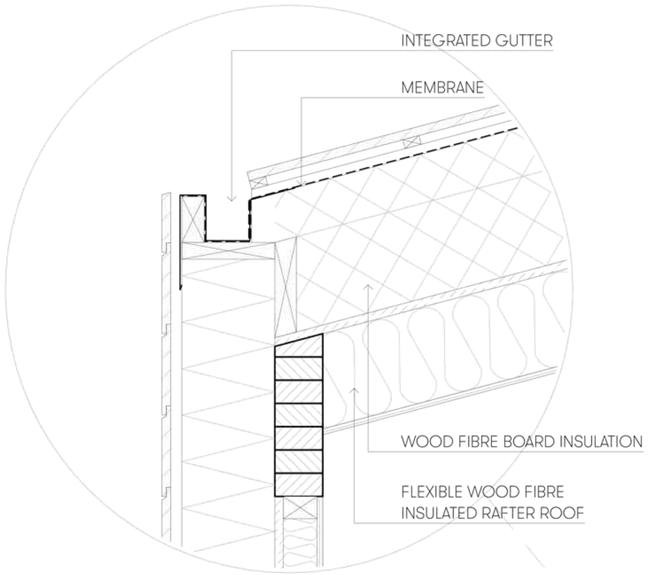
SECTION A-A
1:50

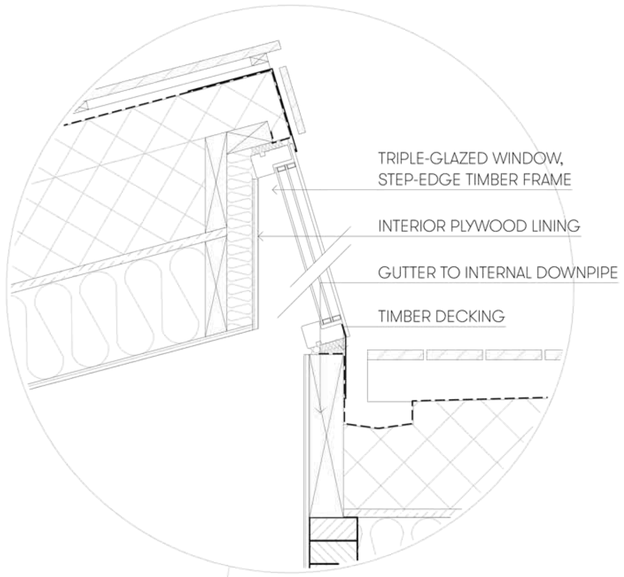
SECTION B-B
1:50

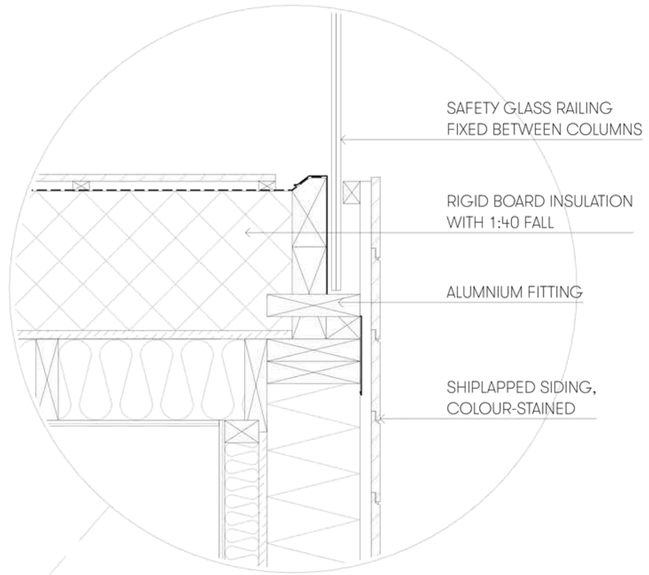
VISUALISATIONS

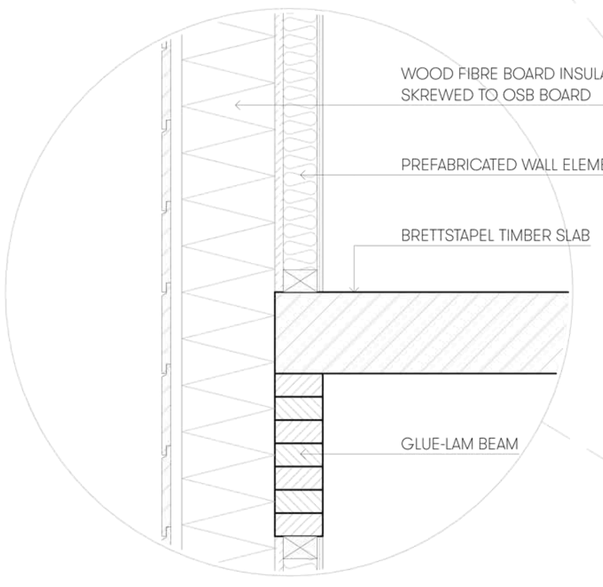


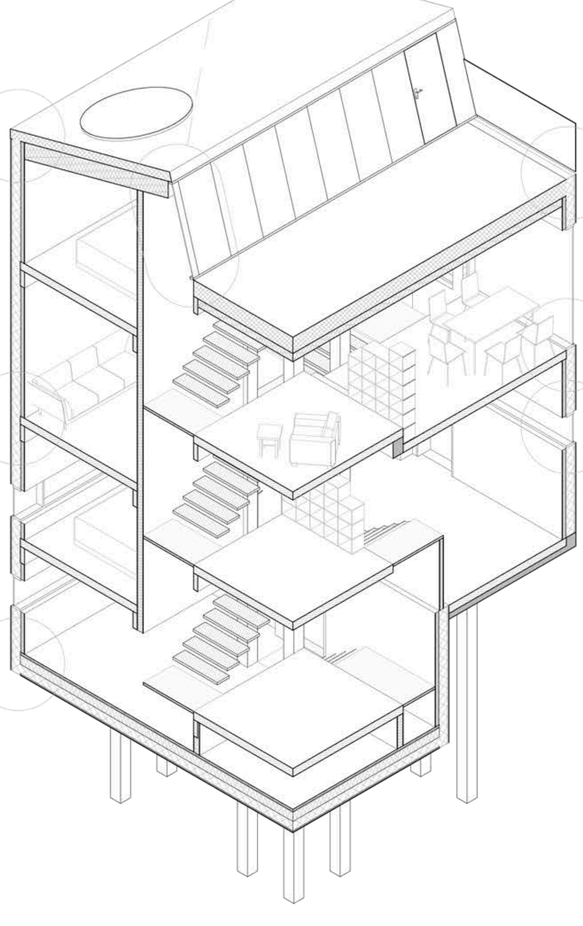
VERTICAL DETAILS
1:7,5

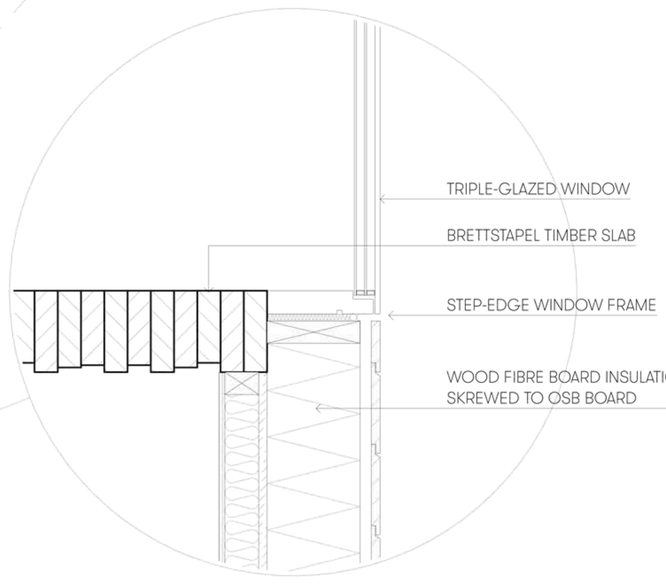


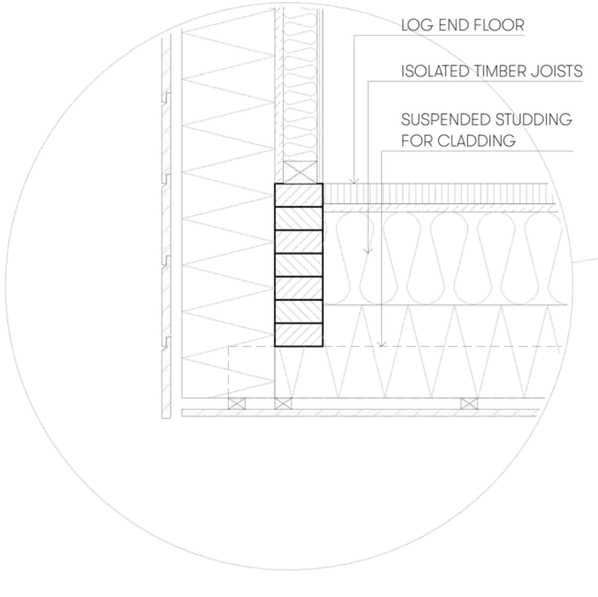



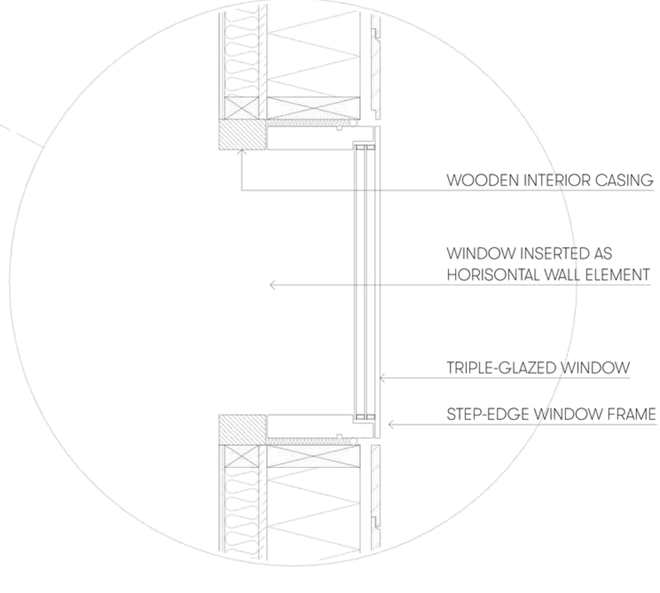






HORISONTAL DETAILS
1:7,5