

A photograph of a dining room with a wooden wall and ceiling. A window with a white frame looks out onto a green landscape. A wooden table is set with white plates, glasses, and napkins. White chairs with wooden legs are around the table. A modern, ribbed pendant light hangs above the table.

HOUT BAY HOUSE

SHOW HOUSE

& INTERNATIONAL RESEARCH PROJECT

**SURFACE DEGRADATION OF WOODEN
CLADDING** (SIBERIAN LARCH
& THERMALLY TREATED PINE)
**TEMPERATURES AND HUMIDITY
IN THE WALLS**

Wall composition:
 84 mm Novatop
 80/120 mm insulation
 100/60 mm ventilated air gap
 SECA cladding (part of eastern wall cement fibre board cladding)



Roof overhangs prevent overheating of the walls and protect the cladding. In HBH we used Novatop Static for the roof overhangs - spruce is treated with OSMO.

Good quality double glazed windows are a necessary part of a well insulated airtight construction. In HBH you can see Oak and PVC windows (basement) and Spruce with grey finish (upper part).

A possible extension (two more bedrooms with one bathroom) can be added in case this will be necessary in the future.

There are 4 different solid wood floorings used in the house: Oak in the living room and kitchen, thermally treated Ash in the bathroom and Siberian Larch - with transparent oil in the western bedroom and with white oil in the eastern bedroom

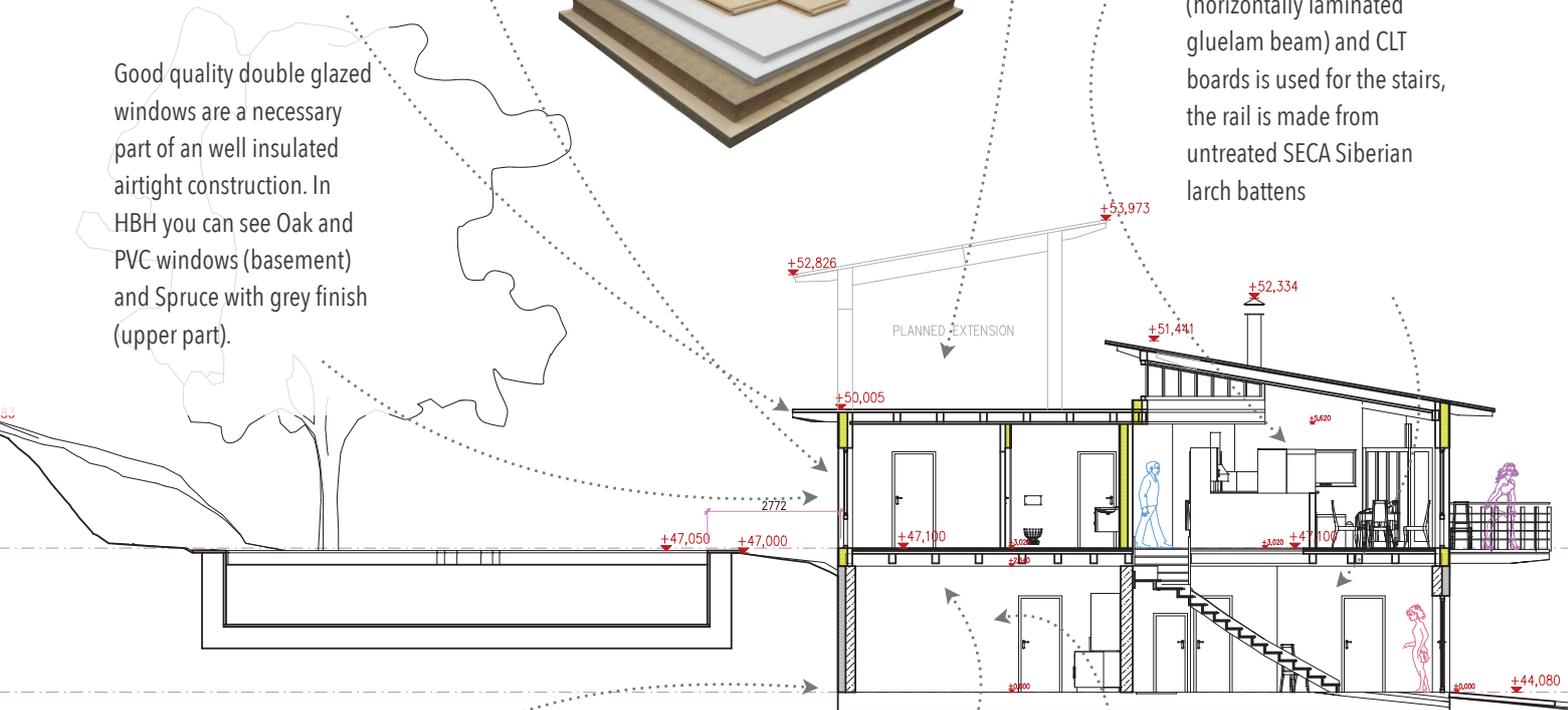
The composition of the **flooring** is shown in the office:
 19 mm solid wood flooring
 40 mm wood fibre insulation
 25 mm fermacell flooring element
 15 mm solid wood flooring



Wooden walls can be also covered (depends on architect and investor), in case of HBH we used fermacell gypsum fibre boards, which also improve fire protection and sound insulation - for more information see fermacell page in the HWZi brochure.

The wooden walls are protected with light white wash treatment, untreated spruce will turn yellow (as visible on samples) and will probably get dirty. In the office you can see a connection of panels by screw (one is not covered), for more options of connections see the Novatop folder.

Combination of BSH (horizontally laminated gluelam beam) and CLT boards is used for the stairs, the rail is made from untreated SECA Siberian larch battens



Brick & mortar basement creates enough space for a big garage, entrance, second bathroom and technical room, at the same time shows how easily a CLT timber construction can be used as an extension of an existing building.

For the ceiling of the basement area we used DUO beams which are bearing the flooring composition of the timber construction - this solution is not the best for the acoustics of the building, a Novatop ceiling panel would be better. This solution has been chosen because the basement is not used as a living area.

In the technical room located in the basement, you can find the electrical and plumbing connection, which is easily accessible for any kind of repairing or upgrades. In the HBH construction the cables are hidden in the CLT wall or in the partitioning (i.e. plumbing) to go the shortest way under the flooring.



Visit our homepage www.hwz.co.za for more information, results of the research, short movie about the construction and more details about the research project.

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