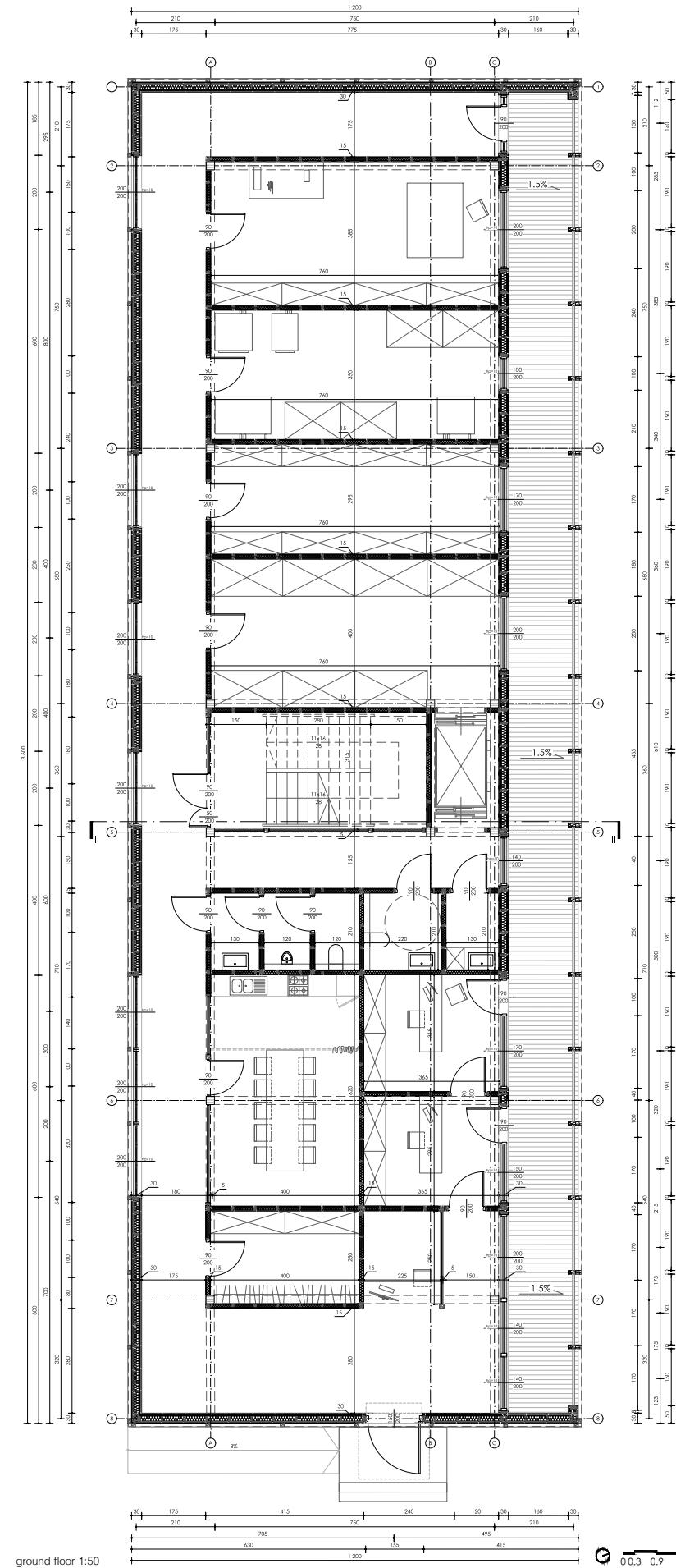
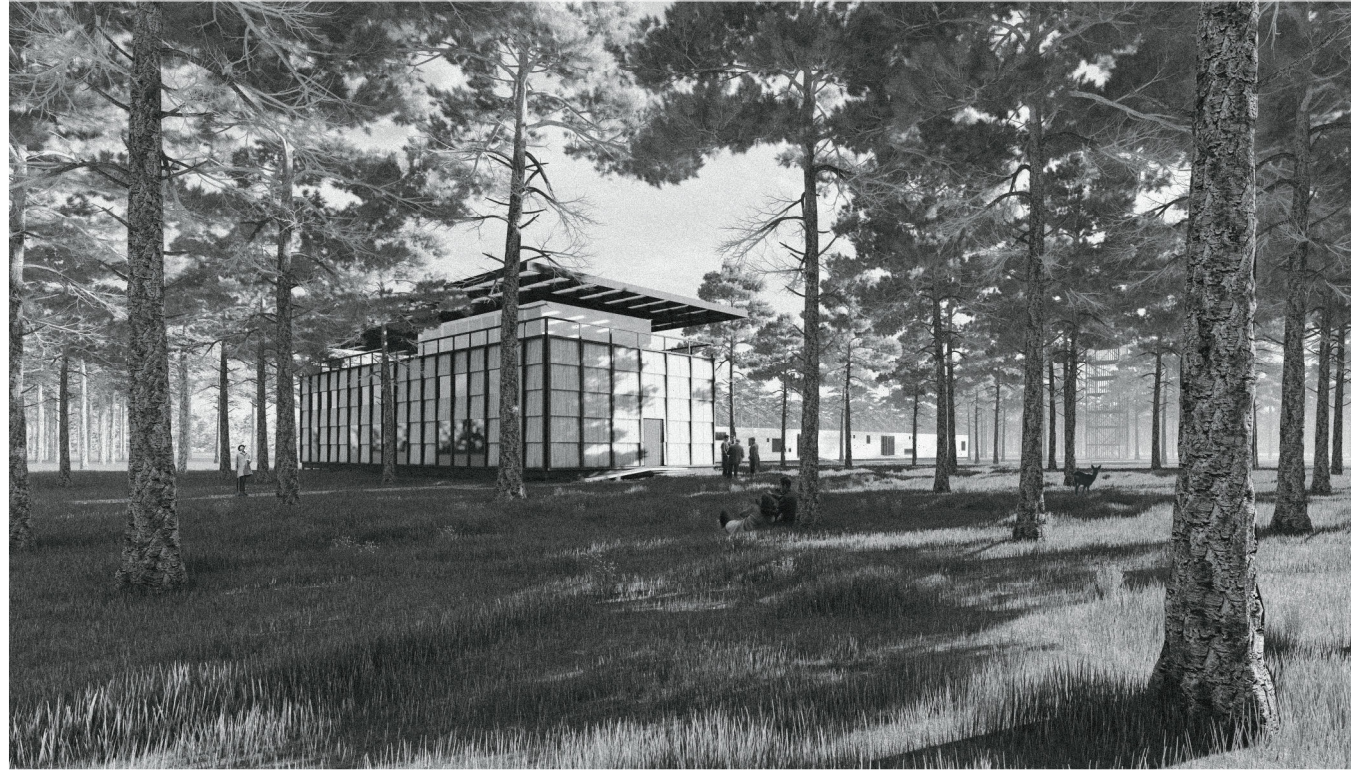
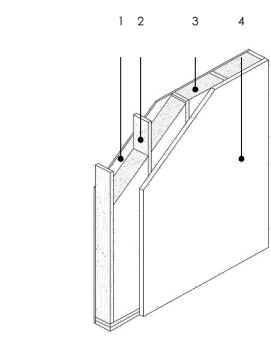


research and educational center design

dedicated to the protection of the natural landscape in Hel



The building was designed as a timber structure using natural and ecological materials (primarily wood-based), in accordance with the principles of both sustainable and energy-efficient design. External and internal partitions were conceived as a glued timber frame construction filled with wood wool insulation and boards made of wood fibers, ensuring minimal environmental impact. The selected CLT (cross-laminated timber) system provides all necessary components for the execution of individual parts of the building; these elements are fully compatible and allow for the creation of various configurations, in line with the designer's intent. Moreover, these products meet all fire safety requirements for a ZL III building category (i.e., the designed facility) as well as the thermal transmittance value (U-factor) resulting from the 2021 technical regulations.



- wooden cladding panels 2 cm
 - battens 4 cm
 - soil membrane
 - windproof layer (airtight sealing)
 - thermal insulation board made of wood fibres 6 cm
 - vapour barrier (airtight sealing)
 - OSB board 3 cm
 - girder studs: 5 x 25 cm / wood wool insulation or PIR 25 cm
 - vapour barrier
 - counter battens 2 cm
 - gypsum-fibre board 1.5 cm
- wooden facade grid 10 x 10 cm
 - wooden cladding panels 1 cm
 - windproof membrane
 - wood fibre insulation board 4 cm
 - girder studs: 5 x 25 cm / wood wool insulation 58 cm
 - gypsum-fibre board 1.5 cm
 - wood fibre insulation board 4 cm
 - vapour barrier
 - gypsum plaster 1 cm
- wooden panels 1 cm
 - insulation foil
 - screed 4 cm
 - protective foil
 - thermo-acoustic board made of wood fibres 6 cm
 - gypsum-fibre board 3 cm
 - girder studs: 5 x 25 cm / wood wool insulation 25 cm
 - protective foil
 - battens 3 cm
 - gypsum-fibre board 1.5 cm
- wooden panels 1 cm
 - insulation foil
 - screed 4 cm
 - vapour barrier
 - thermal insulation board made of wood fibres 6 cm
 - split protection layer
 - fixing system (concrete anchors)
 - reinforced concrete slab 20 cm
 - windproof layer
 - PIR thermal insulation 10 cm

