F1 GROUND FLOOR tiles
- finishing floor tiles 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- existing concrete levelling floor
- existing concrete floor structure

F2 GROUND FLOOR cement screed
- floating cement screed 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- existing concrete levelling floor
- existing concrete floor structure

F3 FIRST FLOOR/SECOND FLOOR 310/295 mm
- Finishing floor cork 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- plywood 20 mm
- air cavity 100 mm / 85 mm
- insulation 100 mm
- plywood 20 mm
- Finishing ceiling cork 20 mm

R1 EXISTING ROOF with insulation 175 mm
- existing Polonceau truss
- existing wooden beams ca. 100 x 250 mm
- existing wooden roof decking ca. 20 mm
- damp proof membrane
- insulation 155 mm
- damp open membrane
- Zinc with standing seams

R2 NEW ROOF glass structure
- existing Polonceau truss
- existing wooden beams ca. 166 x 250 mm
- glass roof structure, aluminum frame 60 x 200 mm
**F1 GROUND FLOOR**
- finishing floor (tiles) 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- existing concrete levelling floor
- existing concrete floor structure

**F2 FIRST FLOOR 625 mm**
- finishing floor (sport hall) 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- concrete hollow-core slab 150 mm (2500 mm span)
- air cavity 255
- suspended ceiling 70 mm

**F3 SWIMMING POOL 100 mm**
- ceramic tiles 10 mm
- cement mortar 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 40 mm
- existing concrete levelling floor
- existing concrete floor structure

**F4 IN-BETWEEN FLOOR 145 mm**
- finishing floor (cork) 20 mm
- insulation 30 mm
- damp proof membrane
- Cross laminated timber floor 5 layers 95 mm

**W1 PRESS HALL 320 mm**
- polycarbonate semi-transparent 16 mm
- air cavity 19 mm
- wooden frame 250 x 50 mm
- air cavity 19 mm
- polycarbonate semi-transparent 16 mm

**W2 SWIMMING POOL 450 mm**
- perforated plywood 20 mm
- insulation 100 mm (2/3 of total)
- damp proof membrane
- insulation 50 mm (1/3 of total)
- perforated plywood 20 mm

**R1 PRES HALL 320 mm**
- polycarbonate semi-transparent 16 mm
- air cavity 19 mm
- wooden frame 250 x 50 mm
- air cavity 19 mm
- polycarbonate semi-transparent 16 mm

**R2 EXISTING ROOF with insulation**
- roofing bitumen
- damp open membrane insulation 150 mm (minimal)
- damp proof membrane
- existing Bimsbeton roof 100 mm

**R3 ROOF SWIMMING POOL**
- pneumatic ETFE cushions with printing for shading
- steel roof structure Ø 200 mm
- steel tension bar
- open space for maintenance and air extraction
- protective layer (depending on existing)
- existing precast concrete HP shell structure

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**FRAGMENT 2 section 1:20**

**FRAGMENT 2 façade 1:20**

**FRAGMENT 2 floorplan 1:20**

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**Fragment 02 press hal/swimmingpool connection**

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**Graduation studio Heritage and Architecture, TU Delft**

**project The Ladder A. van Unen**
F1 GROUND FLOOR
- finishing floor (tiles) 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- existing concrete levelling floor
- existing concrete floor structure

F2 FIRST FLOOR 300 mm
- finishing floor (resident’s choice) 20 mm
- dry installed underfloor heating system 30 mm
- insulation 50 mm
- existing concrete levelling floor
- existing concrete floor structure

F3 MEZZANINE FLOOR 145 mm
- finishing floor (resident’s choice) 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- cross laminated timber floor 9 layers 95 mm

W1 FAÇADE 450 mm
- plasterboard 10 mm
- insulation 140 mm
- damp proof membrane
- existing masonry 100 mm
- cavity insulation 100 mm
- existing masonry 100 mm

R1 ROOF 500 mm
- substrate layer 120 mm (extensive green roof)
- filtering layer
- drainage / water-containing layer 55 mm
- roofing bitumen
- damp open membrane
- insulation 150 mm (minimal)
- damp proof membrane
- hollow-core beam floor 150 mm (5600 mm span)

W2 PARTY WALL (FAAY wall) 300 mm
120 mm fire resistance
- finishing floor (resident’s choice) 20 mm
- dry installed underfloor heating system 30 mm
- damp proof membrane
- insulation 50 mm
- concrete hollow-core slab 130 mm (2800 mm span)

Holes:
- Rockpanel 10 mm “Concrete Platinum”