

# Hoofstuk 8

Gevolgtrekking

Fig.203: Strubekop vanuit die noorde

Fig.204: Regs, terreinplan





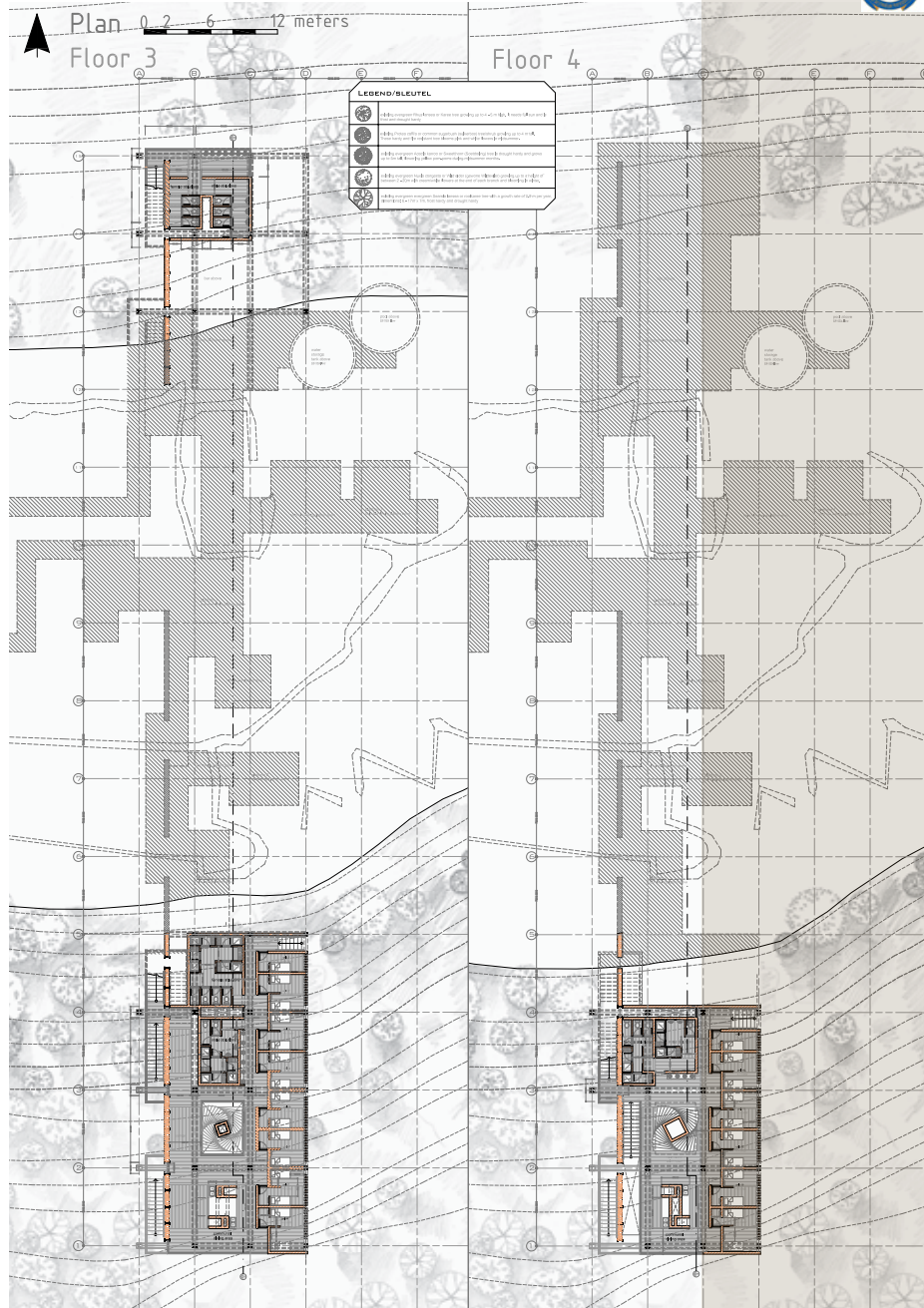


Fig.207: Vloerplan 3 & 4, nie volgens skaal.

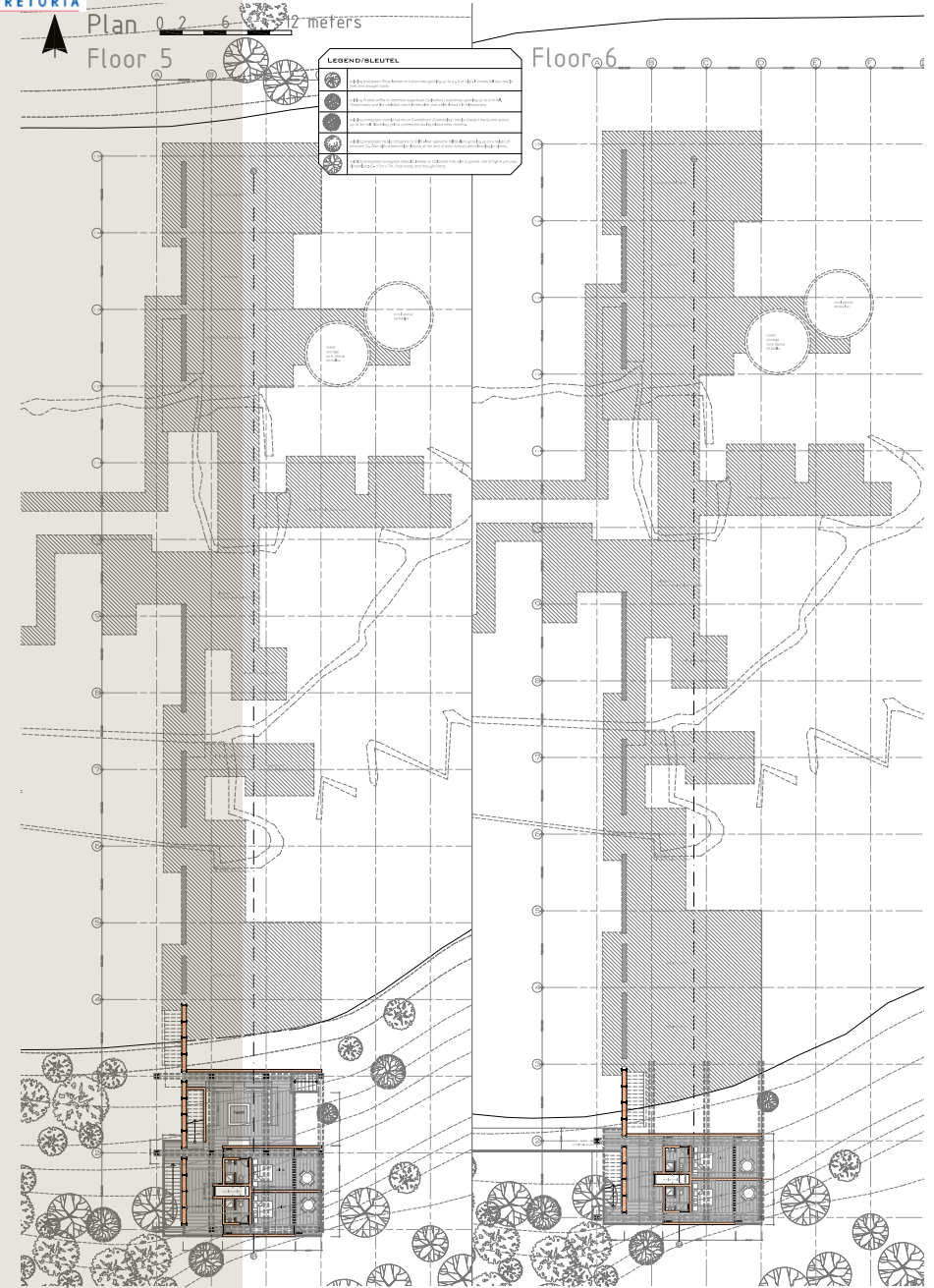
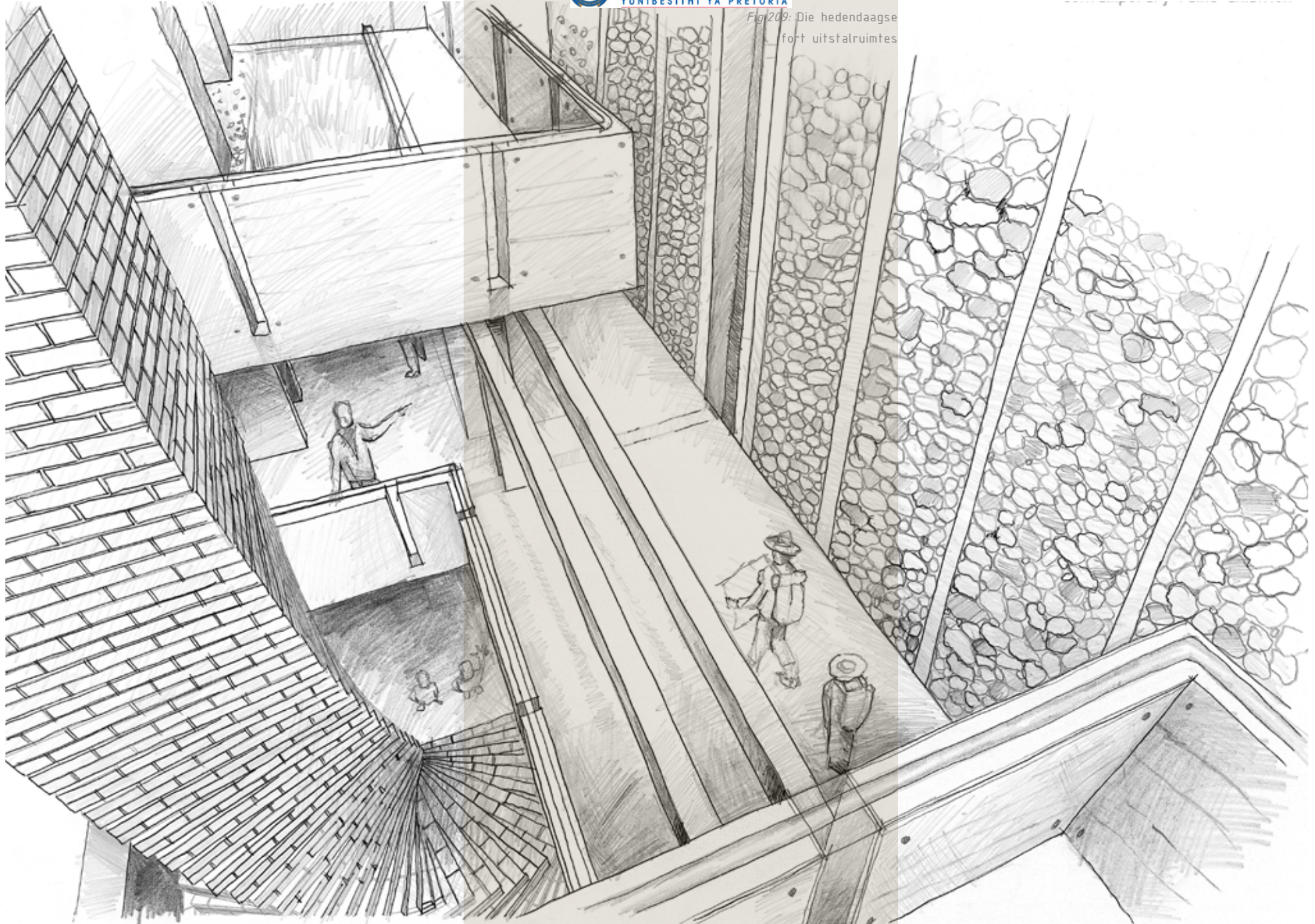
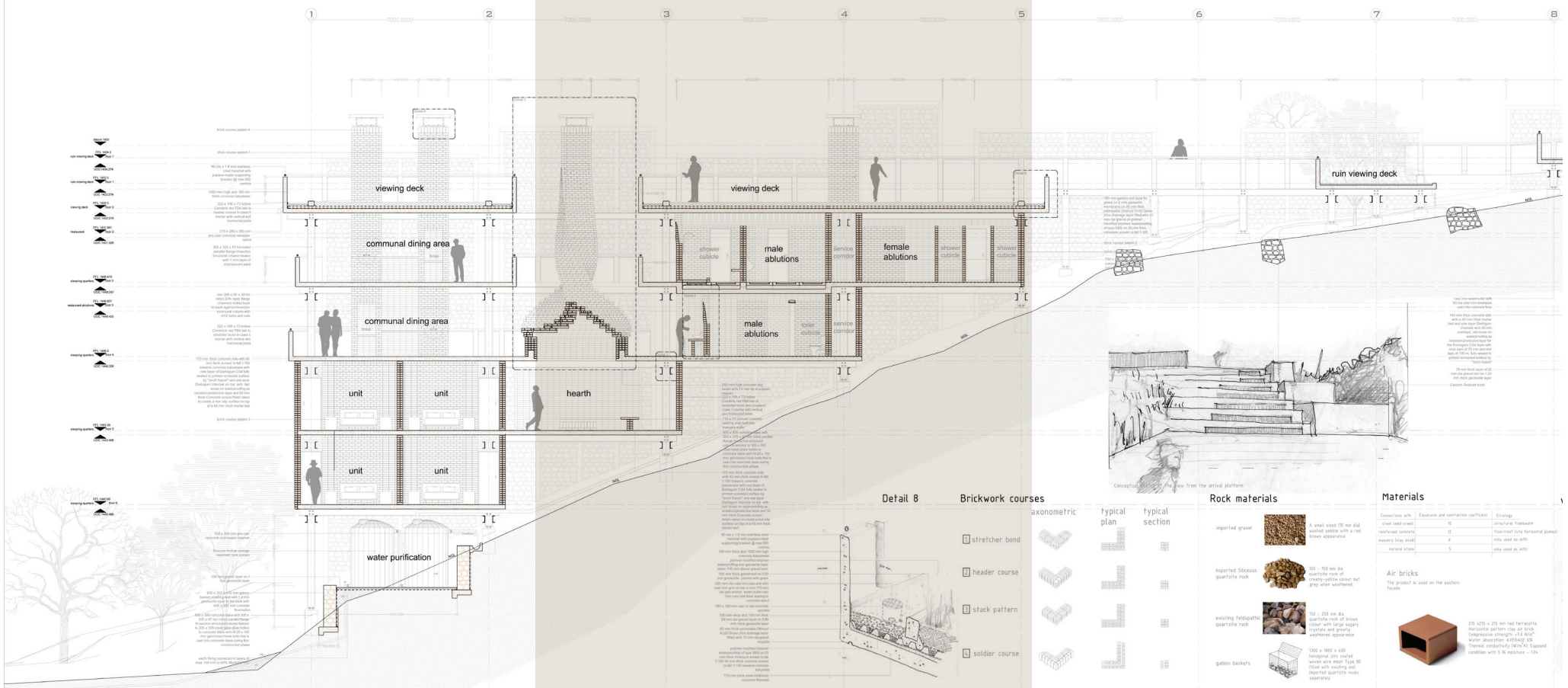


Fig.208: Vloerplan 5 & 6, nie volgens skaal.

Fig 209: Die hedendaagse  
fort uitstalruimtes



Section B-B 1:50



Section B-B 1:50

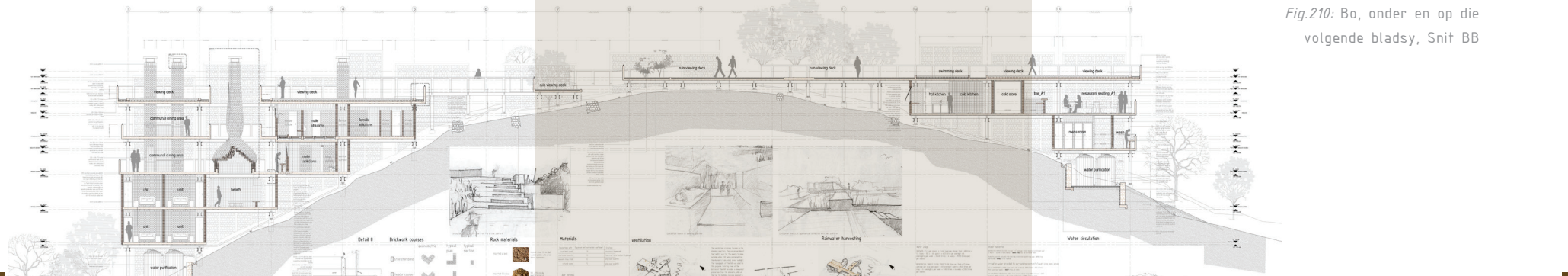
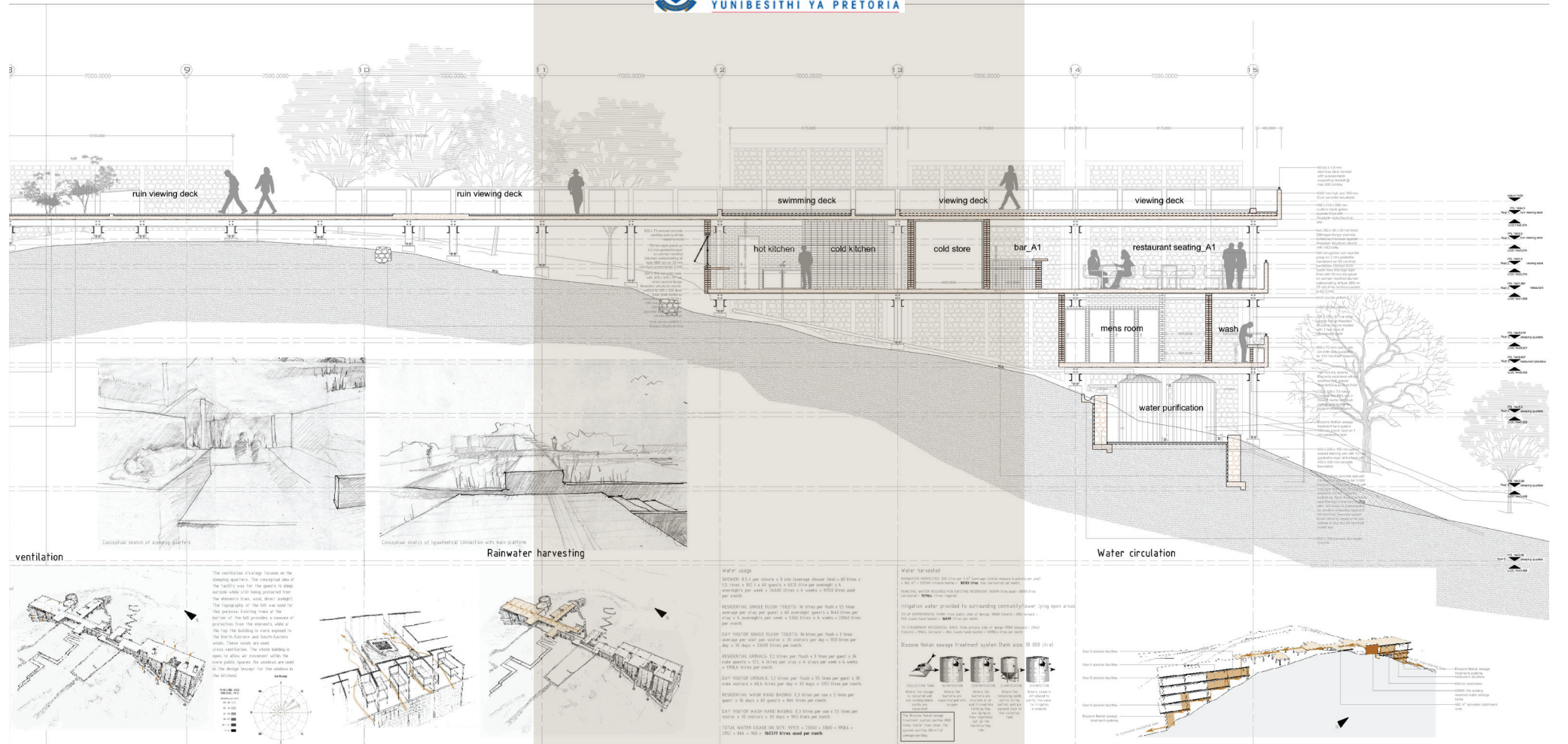
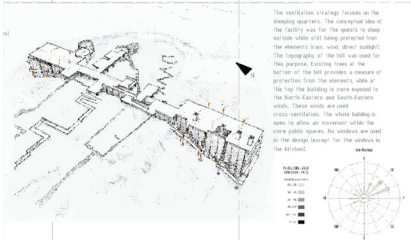


Fig.210: Bo, onder en op die volgende bladsy, Snit BB

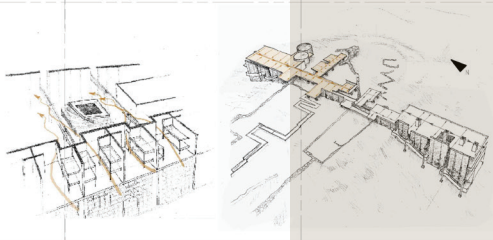


ventilation



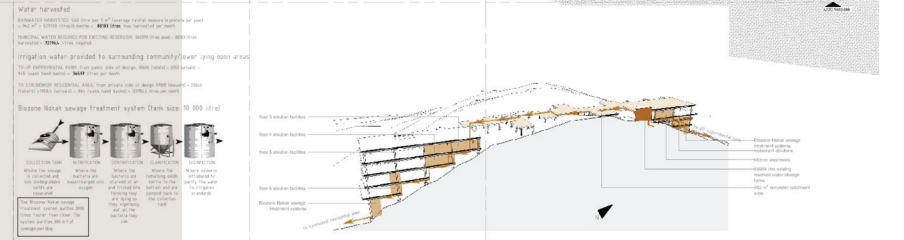
The ventilation strategy focuses on the sleeping quarters. The conceptual idea of the facility was for the spaces to sleep outside when not being protected from the elements (rain, wind, direct sunlight). The topography of the hill was used for this purpose. Existing trees at the bottom of the hill provide a measure of protection from the dominant side of the top. The building is more exposed to the North-Eastern and South-Eastern winds. These winds are used for cross-ventilation. The wind breaking is done by using the existing trees to the north. The wind breaking is done by using the existing trees to the north.

Rainwater harvesting



**Water usage**  
 1000 litres = 0.1 per minute x 8 min coverage shower head = 80 litres x 1.5 litres = 120 litres per shower x 4 showers per day = 480 litres per day x 4 weeks = 1920 litres used per month  
 RESIDENTIAL SINGLE FLOOR TOILETS: 50 litres per flush x 15 flushes average per visit per visitor x 10 overnight guests x 144 litres per day x 4 weeks per visit x 4 weeks = 1920 litres used per month  
 DAY VISITOR SINGLE FLOOR TOILETS: 10 litres per flush x 8 flushes average per visit per visitor x 10 visitors per day x 100 litres per day x 4 weeks = 4000 litres per month  
 RESIDENTIAL URINALS: 1.2 litres per flush x 3 flushes per guest x 30 male guests x 100 litres per day x 4 weeks = 1440 litres per month  
 DAY VISITOR URINALS: 1.2 litres per flush x 15 flushes per guest x 30 male visitors x 100 litres per day x 10 days = 3600 litres per month  
 RESIDENTIAL WASH HAND BASINS: 0.3 litres per use x 3 uses per guest x 10 days x 40 guests = 360 litres per month  
 DAY VISITOR WASH HAND BASINS: 0.3 litres per use x 15 uses per visitor x 10 visitors x 20 days = 360 litres per month  
**TOTAL WATER LEASE ON SITE: 1920 + 1920 + 4000 + 1440 + 3600 + 360 + 360 = 14200 litres used per month**

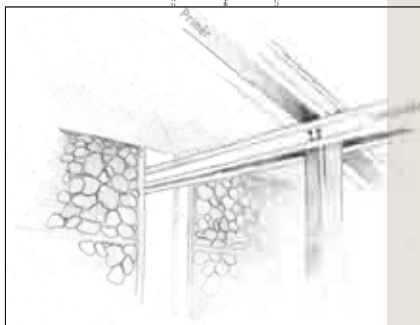
Water circulation



**Water harvested**  
 1000 litres = 0.1 per minute x 8 min coverage shower head = 80 litres x 1.5 litres = 120 litres per shower x 4 showers per day = 480 litres per day x 4 weeks = 1920 litres used per month  
 RESIDENTIAL SINGLE FLOOR TOILETS: 50 litres per flush x 15 flushes average per visit per visitor x 10 overnight guests x 144 litres per day x 4 weeks per visit x 4 weeks = 1920 litres used per month  
 DAY VISITOR SINGLE FLOOR TOILETS: 10 litres per flush x 8 flushes average per visit per visitor x 10 visitors per day x 100 litres per day x 4 weeks = 4000 litres per month  
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**TOTAL WATER LEASE ON SITE: 1920 + 1920 + 4000 + 1440 + 3600 + 360 + 360 = 14200 litres used per month**

### Detail 1

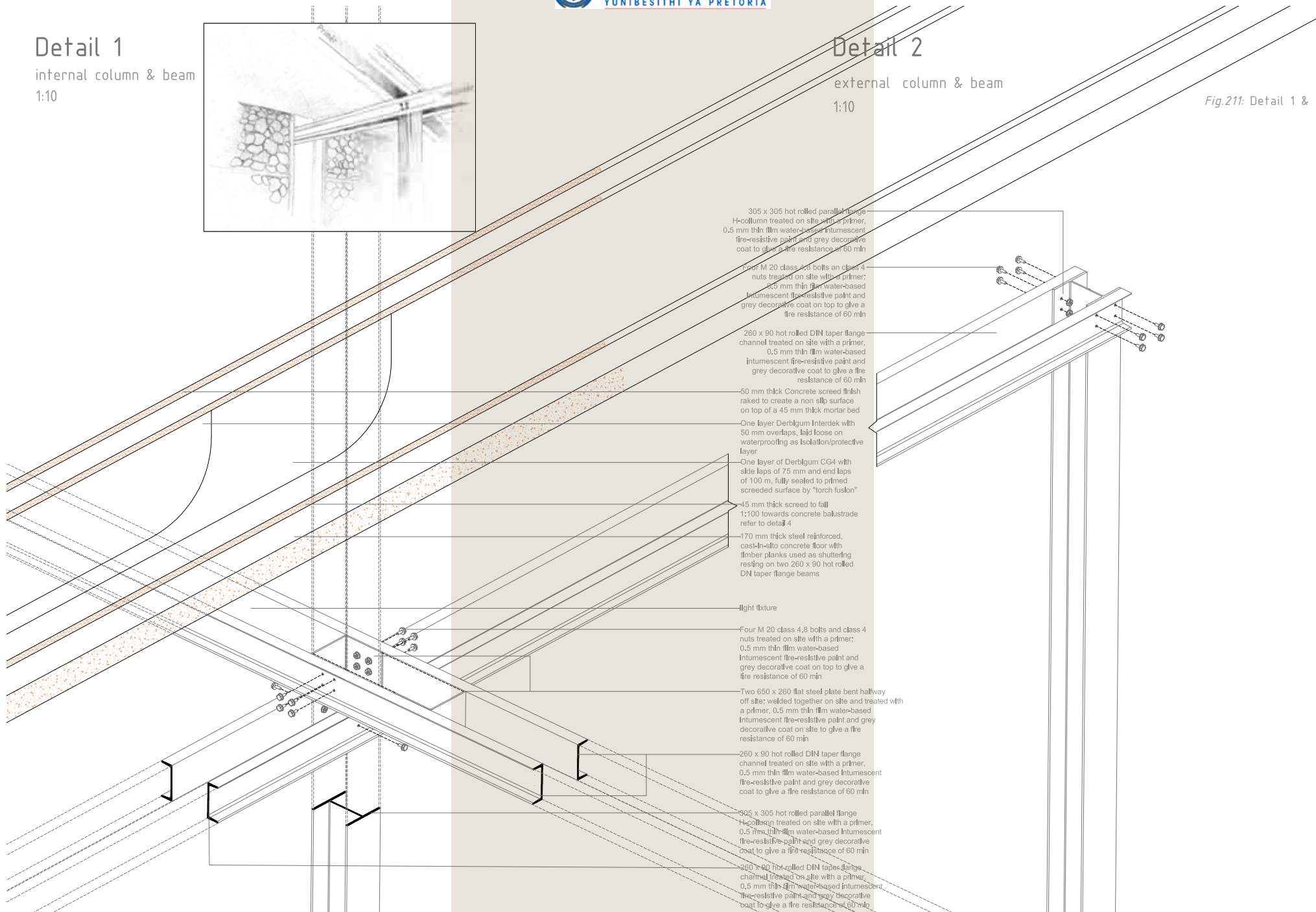
internal column & beam  
1:10



### Detail 2

external column & beam  
1:10

Fig.211: Detail 1 & 2



305 x 305 hot rolled parallel flange H-column treated on site with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

Four M 20 class 4,8 bolts and class 4 nuts treated on site with a primer; 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat on top to give a fire resistance of 60 min

260 x 90 hot rolled DIN taper flange channel treated on site with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

50 mm thick Concrete screed finish raked to create a non slip surface on top of a 45 mm thick mortar bed

One layer Derbiqum Interdek with 50 mm overlaps, laid loose on waterproofing as Isolatlon/protective layer

One layer of Derbiqum CG4 with side laps of 75 mm and end laps of 100 mm, fully sealed to primed screeded surface by "torch fusion"

45 mm thick screed to fall 1:100 towards concrete balustrade refer to detail 4

170 mm thick steel reinforced, cast-in-situ concrete floor with timber planks used as shuttering resting on two 260 x 90 hot rolled DIN taper flange beams

light fixture

Four M 20 class 4,8 bolts and class 4 nuts treated on site with a primer; 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat on top to give a fire resistance of 60 min

Two 650 x 260 flat steel plate bent halfway off site; welded together on site and treated with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat on site to give a fire resistance of 60 min

260 x 90 hot rolled DIN taper flange channel treated on site with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

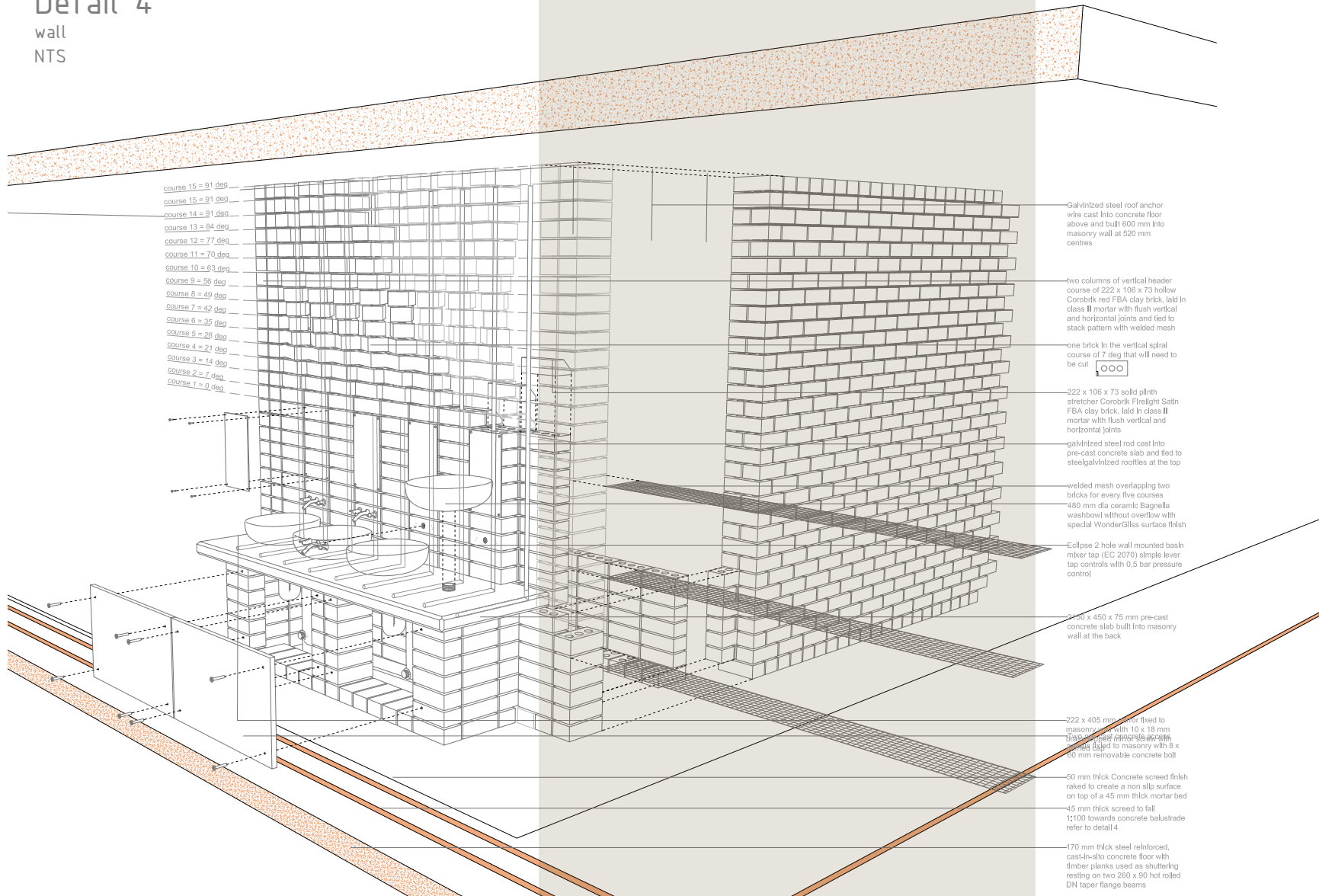
305 x 305 hot rolled parallel flange H-column treated on site with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

260 x 90 hot rolled DIN taper flange channel treated on site with a primer, 0,5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min



# Detail 4

wall  
NTS



course 15 = 91 deg  
course 15 = 91 deg  
course 14 = 91 deg  
course 13 = 84 deg  
course 12 = 77 deg  
course 11 = 70 deg  
course 10 = 63 deg  
course 9 = 56 deg  
course 8 = 49 deg  
course 7 = 42 deg  
course 6 = 35 deg  
course 5 = 28 deg  
course 4 = 21 deg  
course 3 = 14 deg  
course 2 = 7 deg  
course 1 = 0 deg

Galvanized steel roof anchor wire cast into concrete floor above and built 600 mm into masonry wall at 520 mm centres

two columns of vertical header course of 222 x 106 x 73 hollow Corobrik red FBA clay brick, laid in class II mortar with flush vertical and horizontal joints and tied to stack pattern with welded mesh

one brick in the vertical spiral course of 7 deg that will need to be cut



222 x 106 x 73 solid plinth stretcher Corobrik Firelight Salth FBA clay brick, laid in class II mortar with flush vertical and horizontal joints

galvanized steel rod cast into pre-cast concrete slab and tied to steel galvanized roof ties at the top

welded mesh overlapping two bricks for every five courses  
480 mm dia ceramic Bagnella washbowl without overflow with special WonderGloss surface finish

Eclipse 2 hole wall mounted basin mixer tap (EC 2070) simple lever tap controls with 0.5 bar pressure control

222 x 450 x 75 mm pre-cast concrete slab built into masonry wall at the back

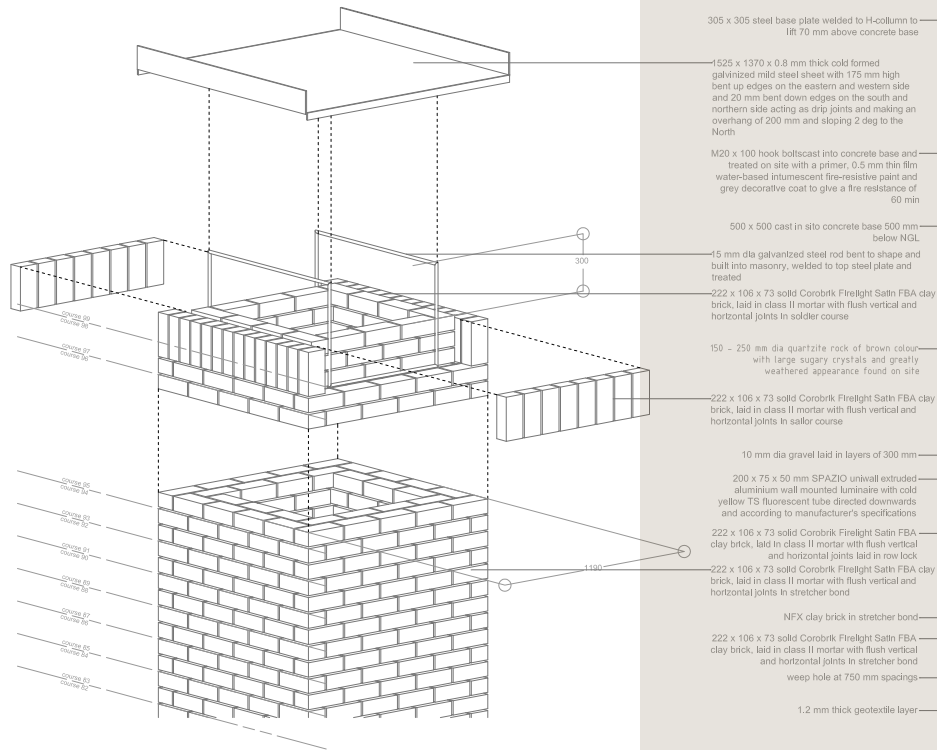
222 x 405 mm floor fixed to masonry wall with 10 x 18 mm timber floor joists  
timber floor joists fixed to masonry with 8 x 60 mm removable concrete bolt

50 mm thick Concrete screed finish raked to create a non-slip surface on top of a 45 mm thick mortar bed  
45 mm thick screed to fall 1:100 towards concrete balustrade refer to detail 4

170 mm thick steel reinforced, cast-in-situ concrete floor with timber planks used as shuttering resting on two 260 x 90 hot rolled DN taper flange beams

Fig.214: Detail 4, nie volgens skaal.

### Detail 5 chimney top 1:10



### Detail 6 column footing 1:5

305 x 305 hot rolled parallel flange H-column treated on site with a primer, 0.5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

305 x 305 steel base plate welded to H-column to lift 70 mm above concrete base

1525 x 1370 x 0.8 mm thick cold formed galvanized mild steel sheet with 175 mm high bent up edges on the eastern and western side and 20 mm bent down edges on the south and northern side acting as drip joints and making an overhang of 200 mm and sloping 2 deg to the North

M20 x 100 hook bolts cast into concrete base and treated on site with a primer, 0.5 mm thin film water-based intumescent fire-resistive paint and grey decorative coat to give a fire resistance of 60 min

500 x 500 cast in situ concrete base 500 mm below NGL

15 mm dia galvanized steel rod bent to shape and built into masonry, welded to top steel plate and treated

222 x 106 x 73 solid Corobrik Firelight Satin FBA clay brick, laid in class II mortar with flush vertical and horizontal joints in soldier course

150 - 250 mm dia quartzite rock of brown colour with large sugary crystals and greatly weathered appearance found on site

222 x 106 x 73 solid Corobrik Firelight Satin FBA clay brick, laid in class II mortar with flush vertical and horizontal joints in soldier course

10 mm dia gravel laid in layers of 300 mm

200 x 75 x 50 mm SPAZIO uniwall extruded aluminium wall mounted luminaire with cold yellow TS fluorescent tube directed downwards and according to manufacturer's specifications

222 x 106 x 73 solid Corobrik Firelight Satin FBA clay brick, laid in class II mortar with flush vertical and horizontal joints laid in row lock

222 x 106 x 73 solid Corobrik Firelight Satin FBA clay brick, laid in class II mortar with flush vertical and horizontal joints in stretcher bond

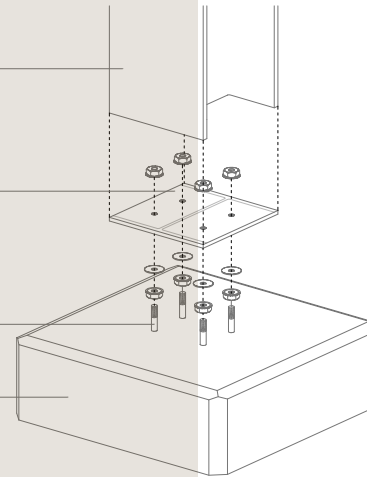
NFX clay brick in stretcher bond

222 x 106 x 73 solid Corobrik Firelight Satin FBA clay brick, laid in class II mortar with flush vertical and horizontal joints in stretcher bond

weep hole at 750 mm spacings

1.2 mm thick geotextile layer

200 x 600 reinforced concrete strip foundation built 300 mm below NGL



### Detail 7 Access route section 1:20

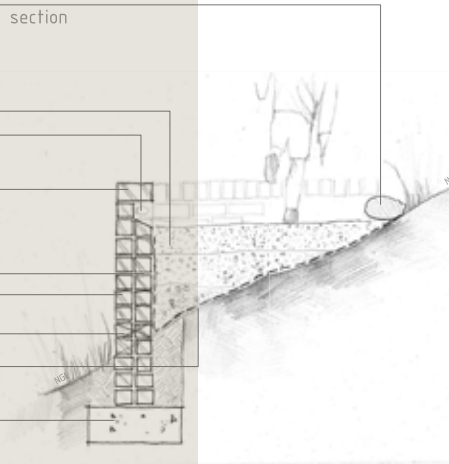


Fig.215: Detail 5, 6 & 7, nie volgens skaal.

Fig.216: Die ingang tot platform 1.



Fig.217: Die liniêre vorm van die gebou in die landskap

Fig.218: Regs bo, die uitsig na die ooste

Fig.219: Regs onder, die uitsig na die noorde.

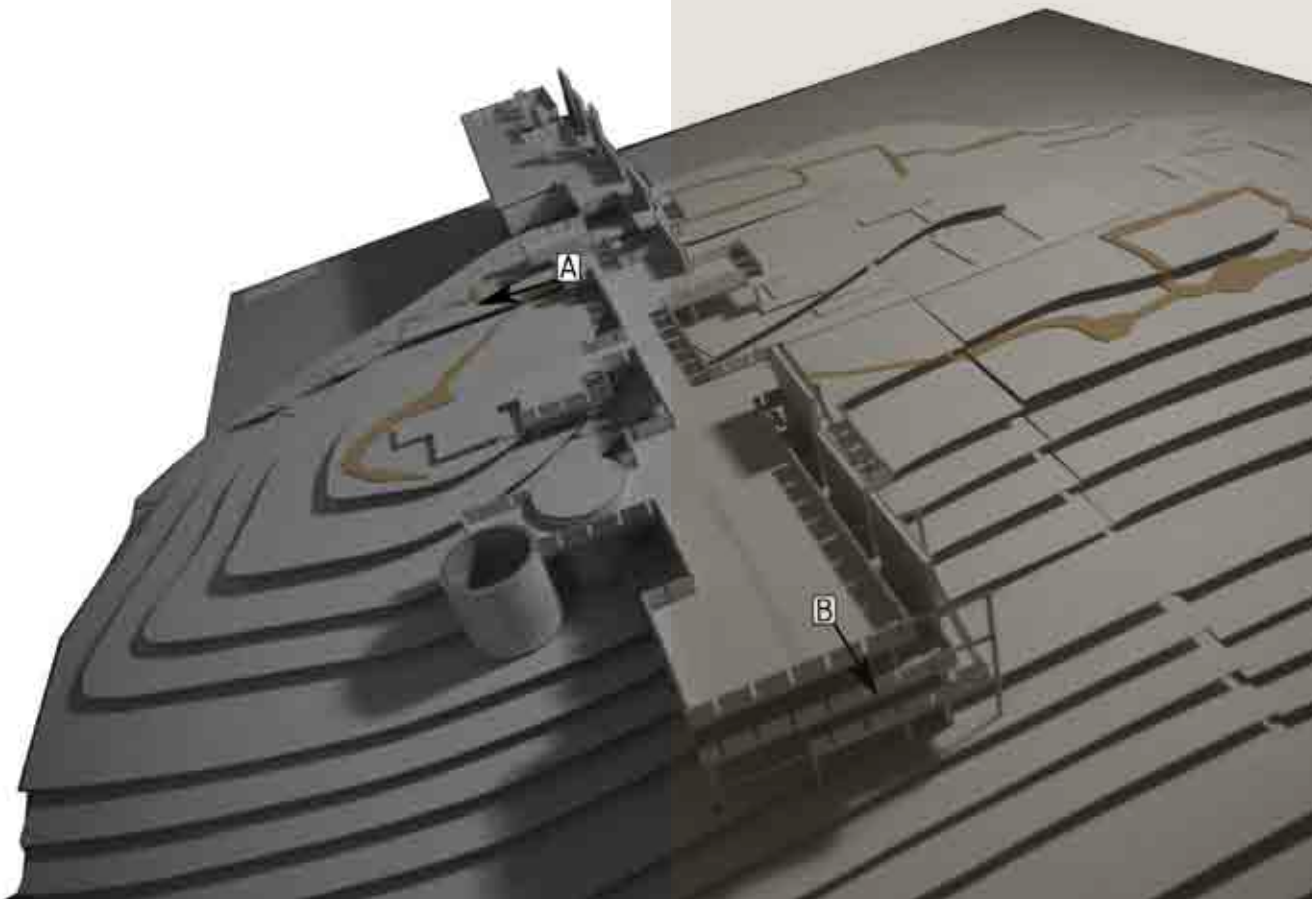


Fig.220: Die drumpel in  
die landskap

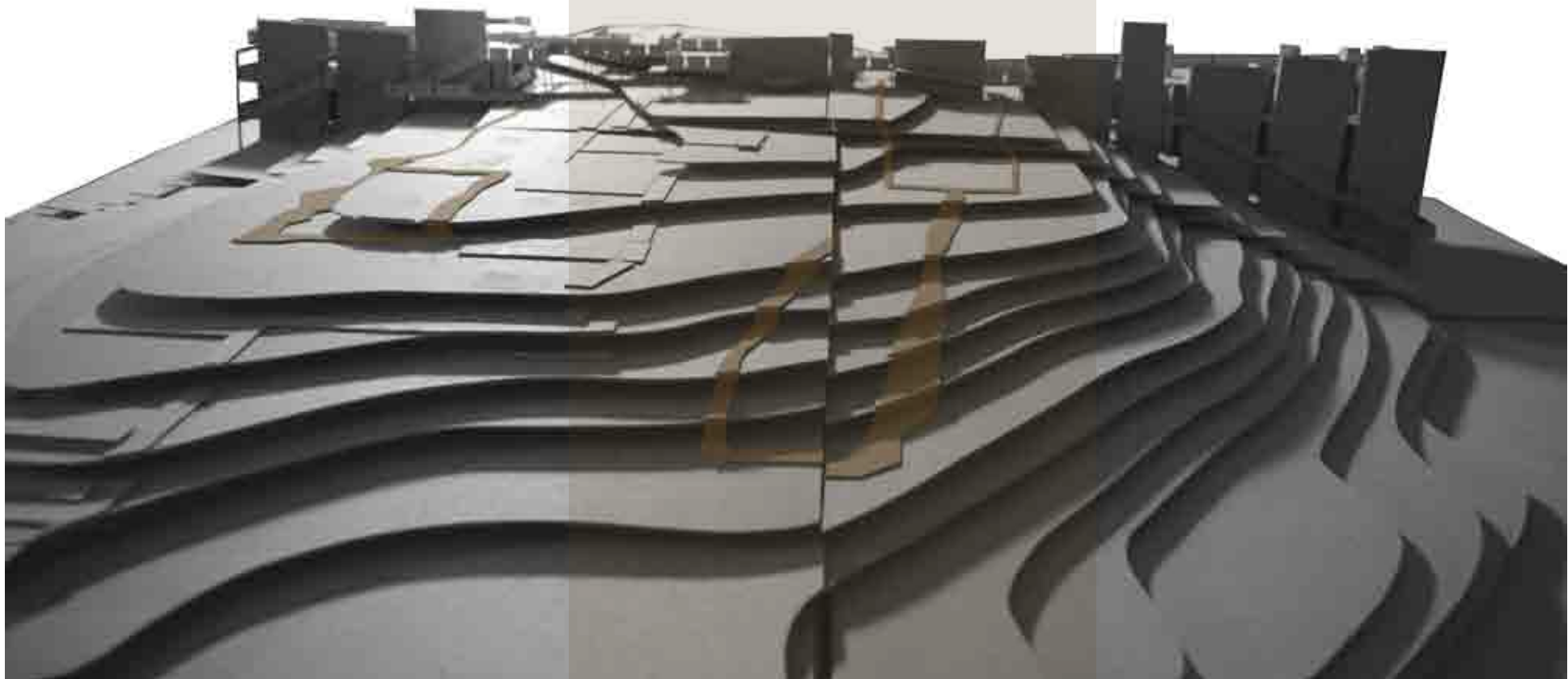
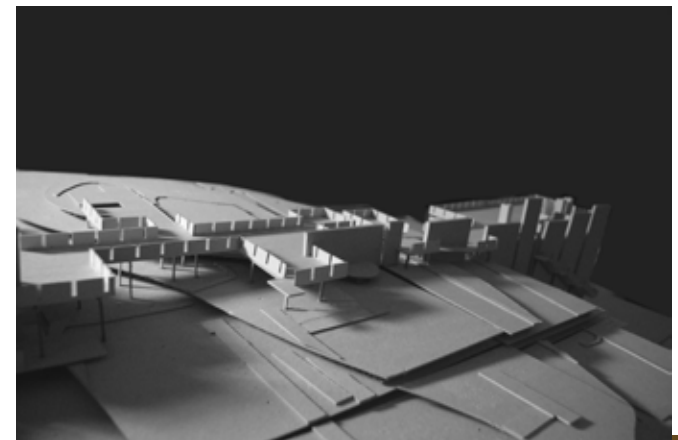
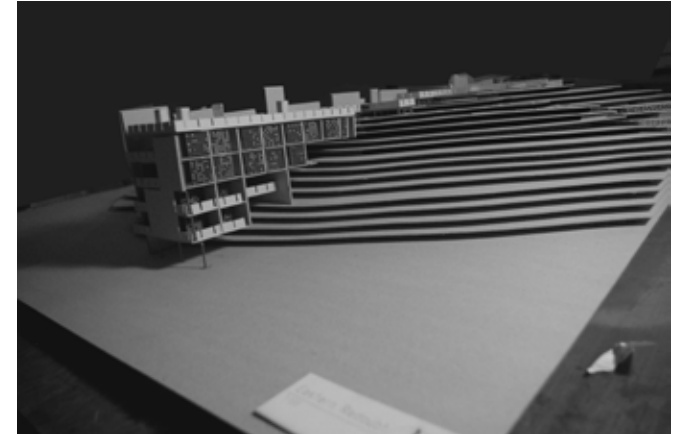
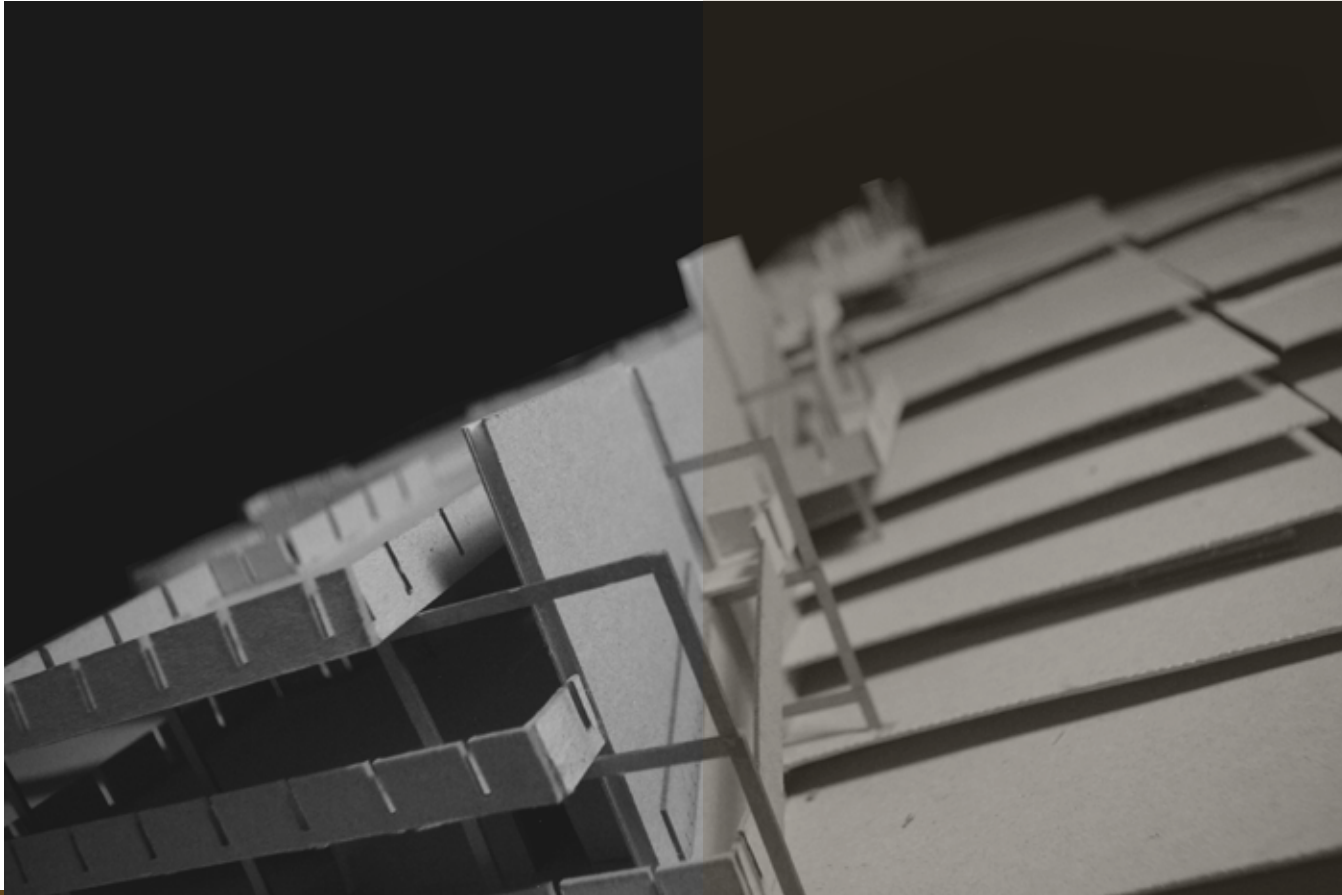


Fig.221: Die restaurant

Fig.222: Regs bo, die oostelike fasade

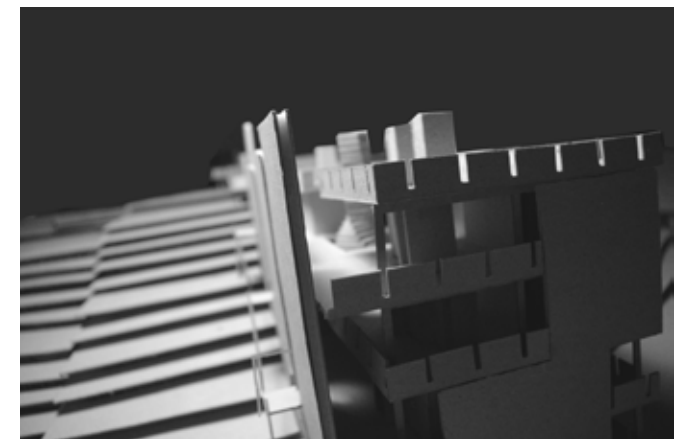
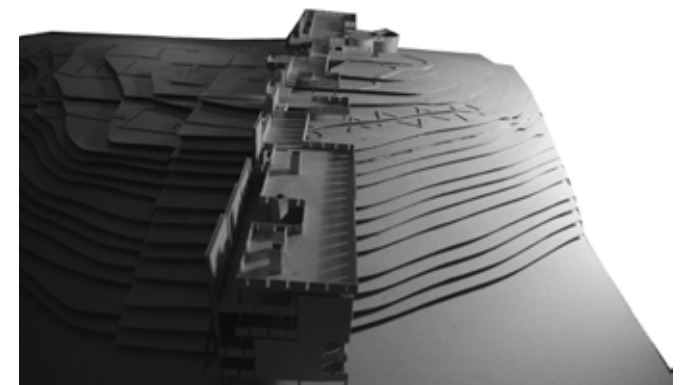
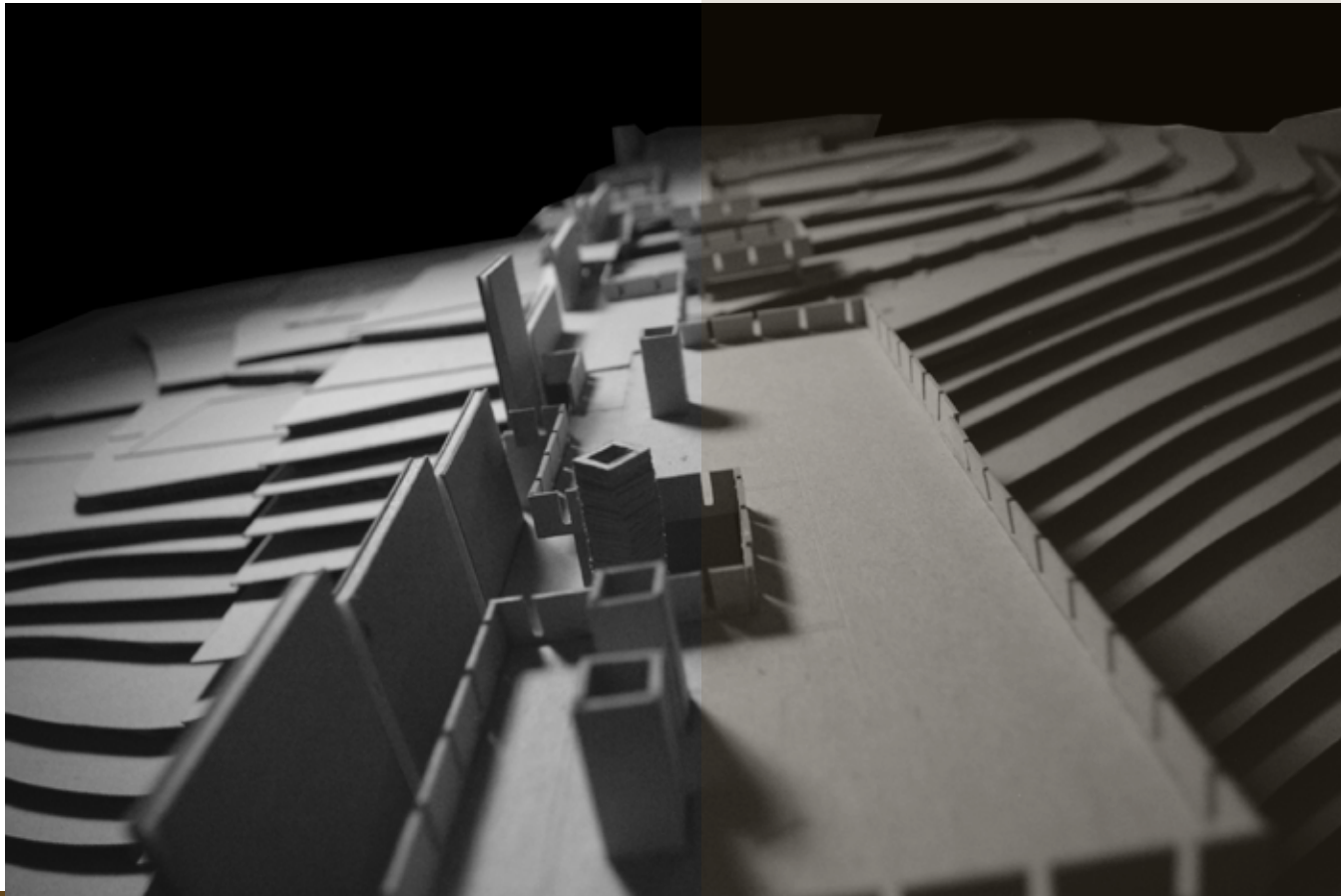
Fig.223: Regs onder, foto van die model.



*Fig.224:* Die platforms wat die hedendaagse funksie van die *Eastern Redoubt* uitstal.

*Fig.225:* Regs bo, foto van die model.

*Fig.226:* Regs onder, die braai areas aan die suidelike kant van die gebou



*Fig.227:* Die swembad area aan die publieke kant van die gebou

