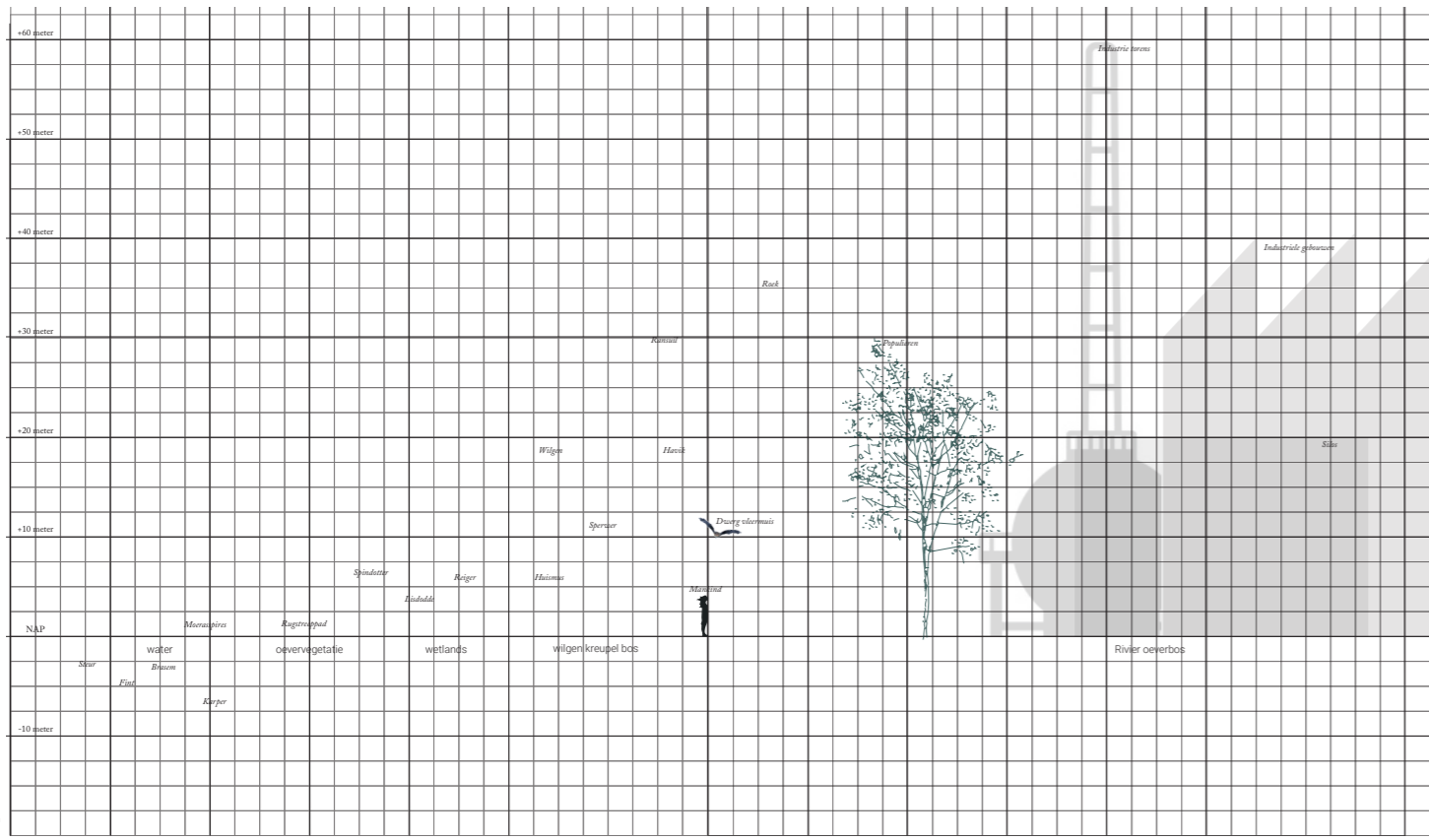


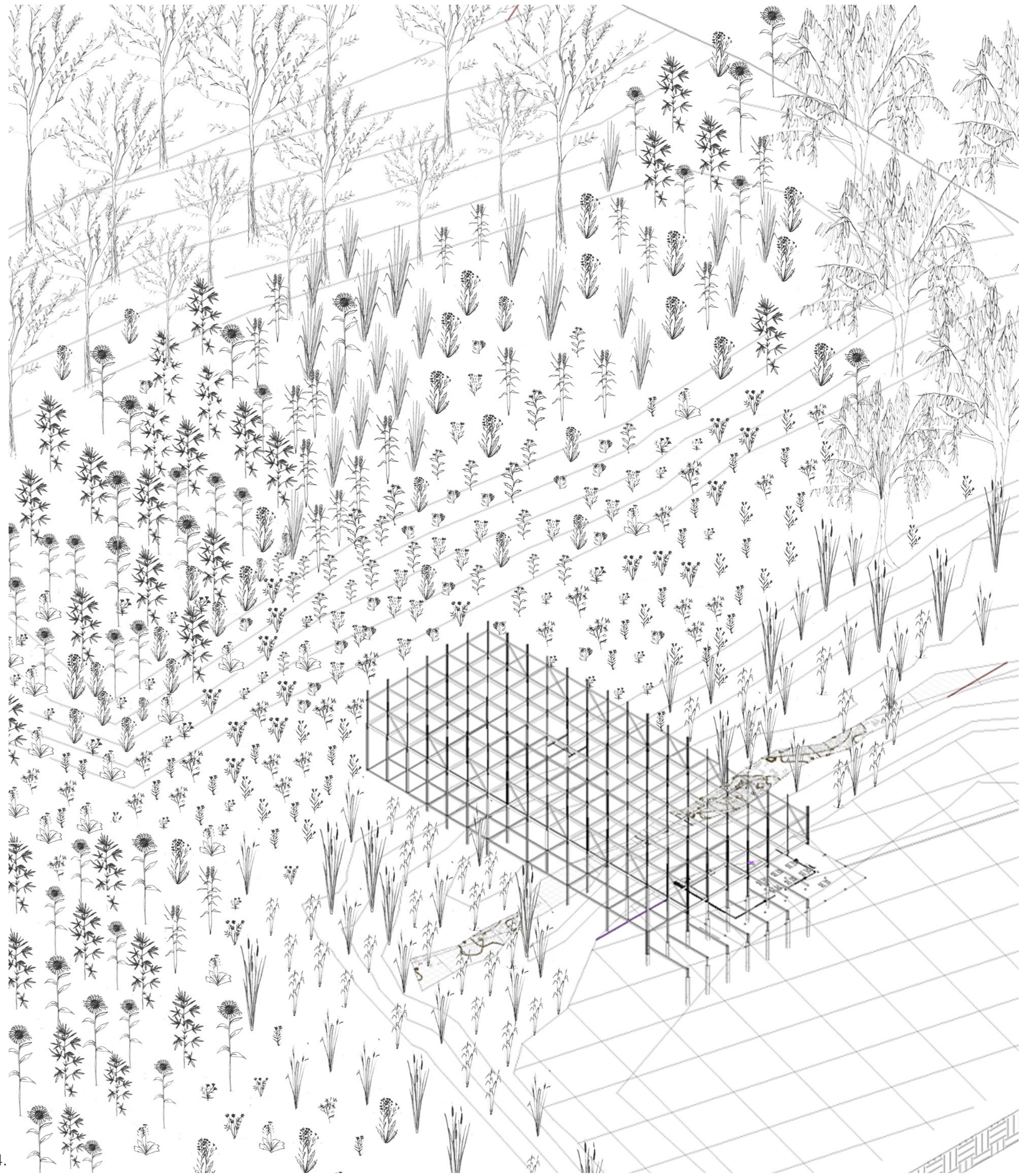
1.



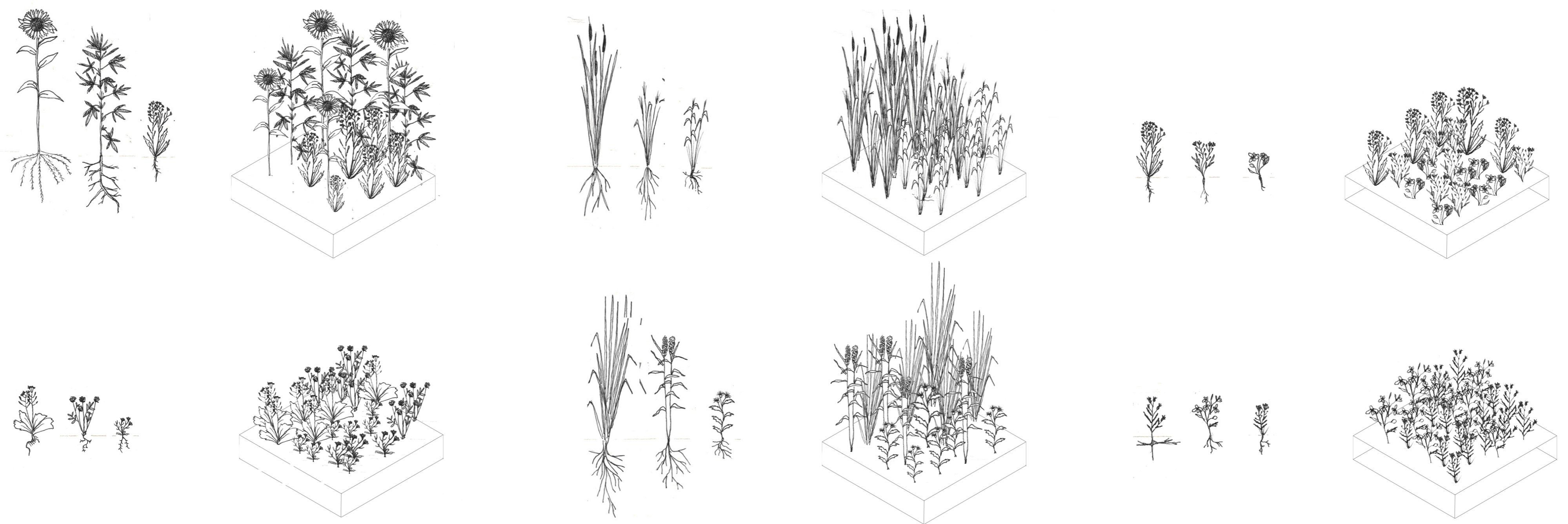
2.

Remediation garden

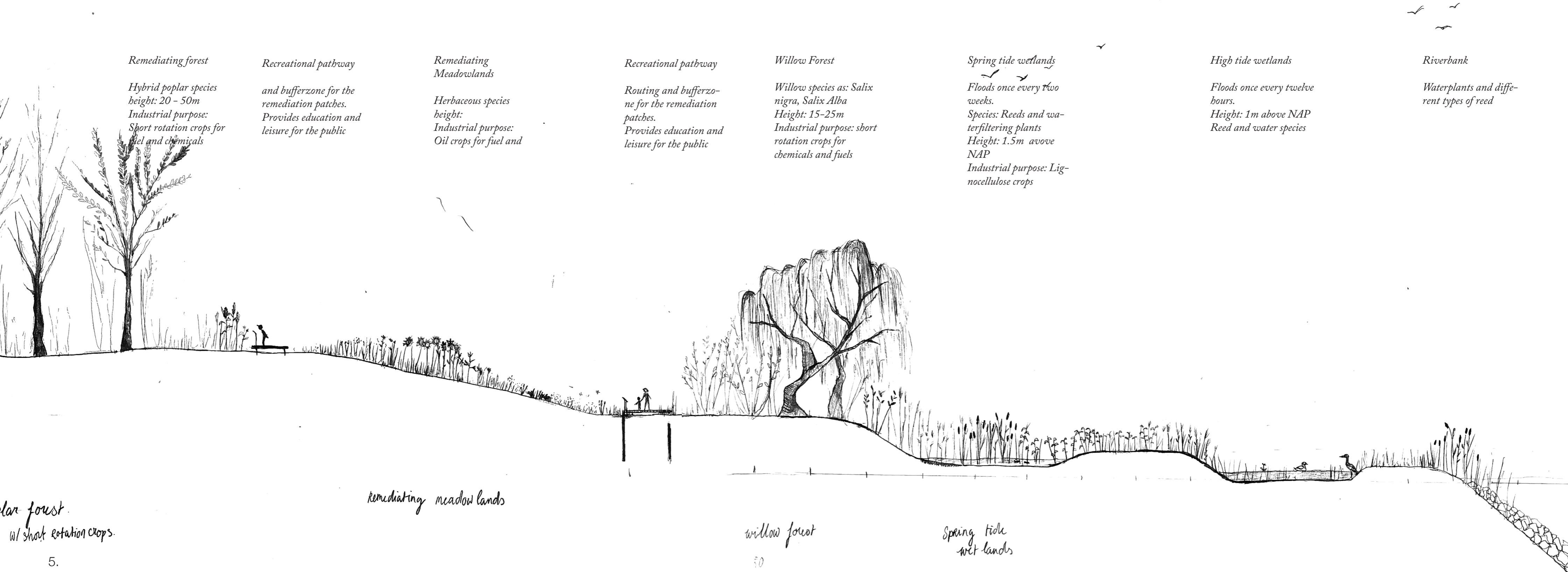
1. The multiple layers of the productive energy forest
2. Habitants and artefacts of the estuary
3. Remediation strategy: plants organized per habitat, colour and length
4. Remediation plants applied onto the site
5. Tidal landscape including the rehabilitating vegetation



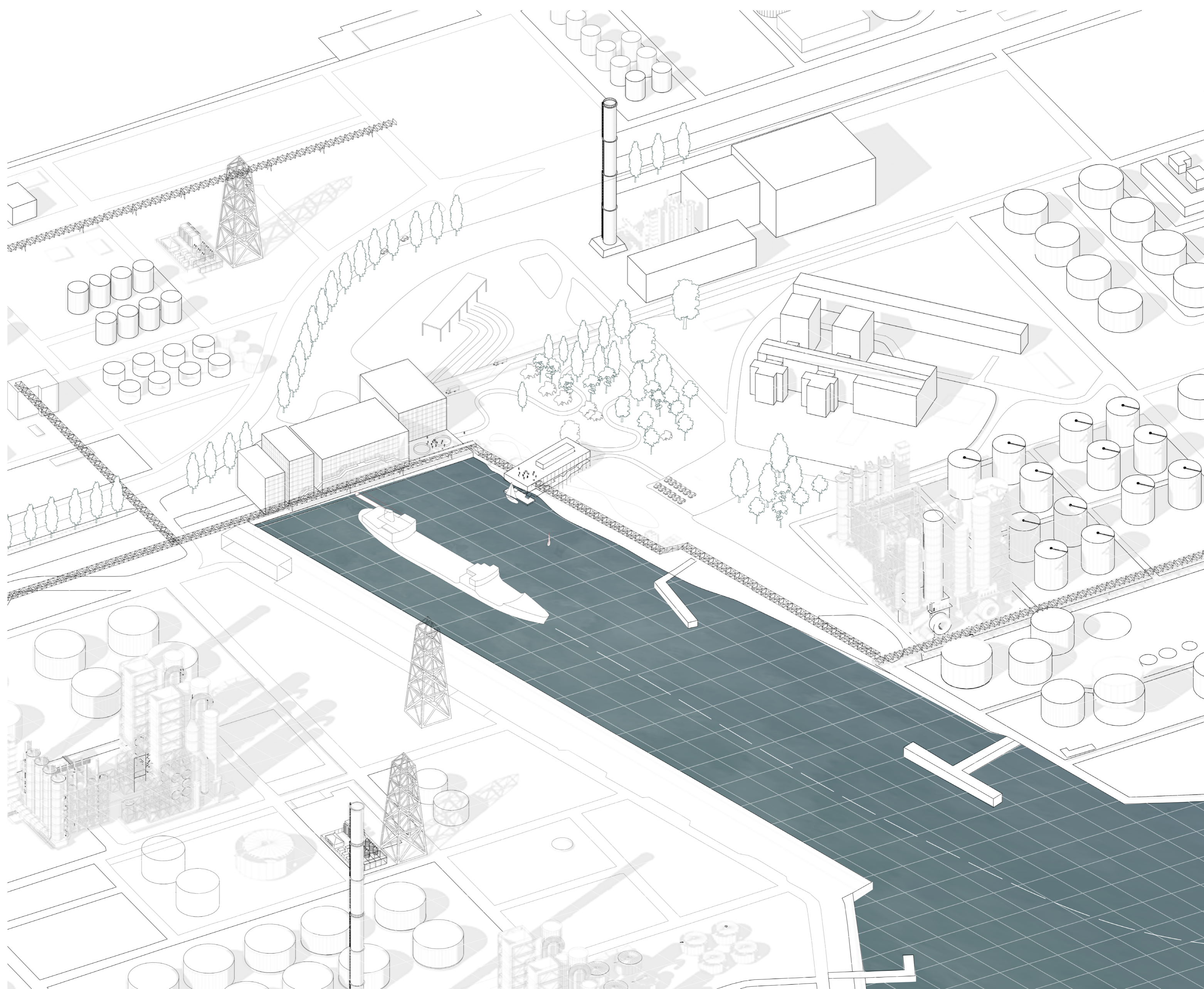
4.



3.

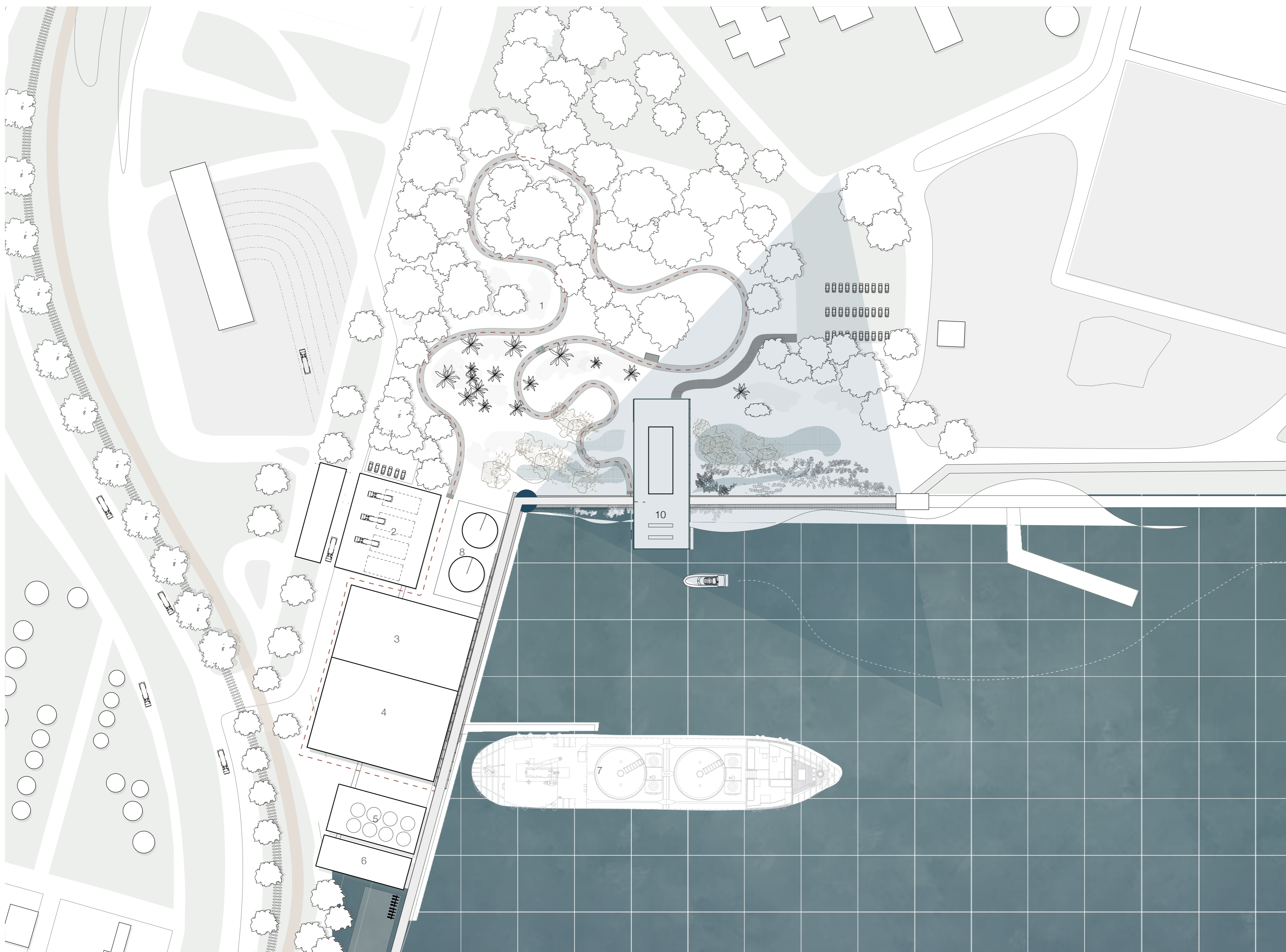


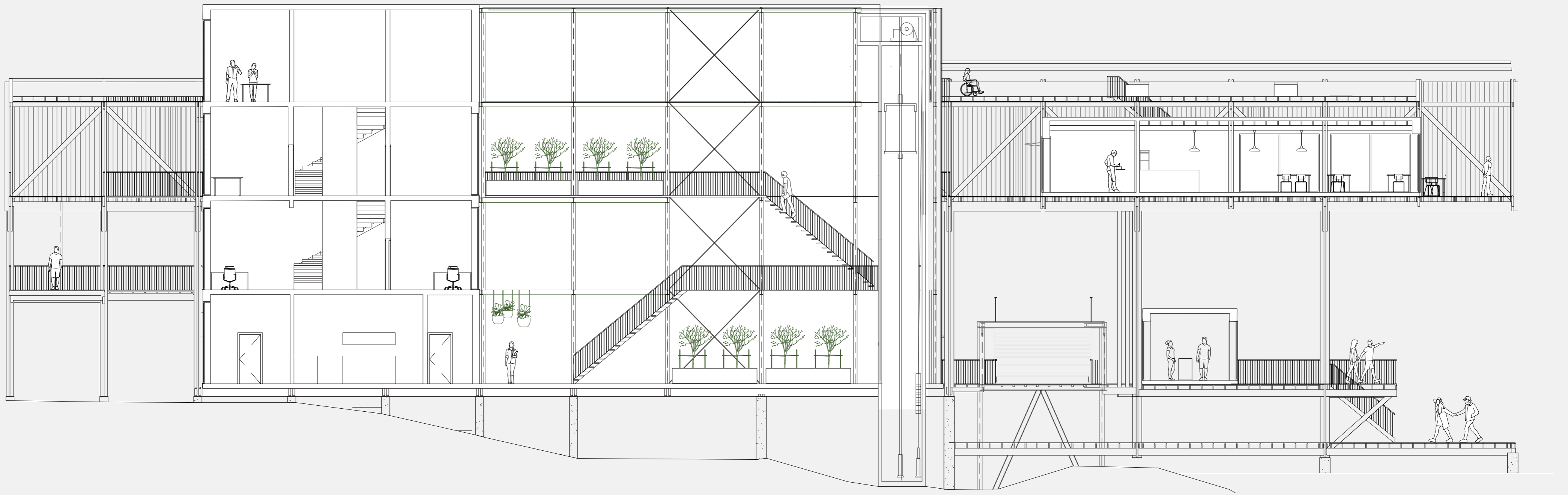
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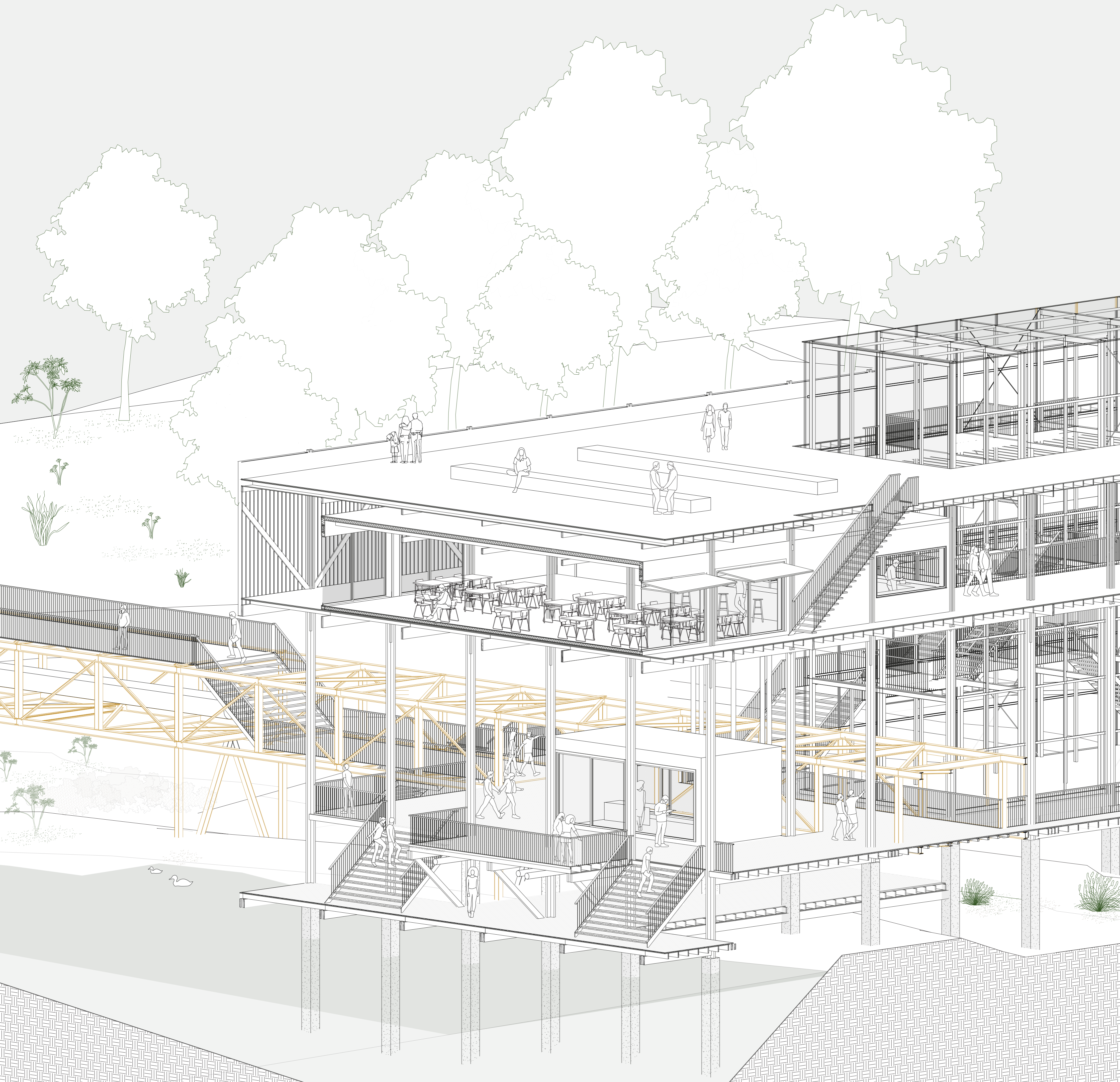
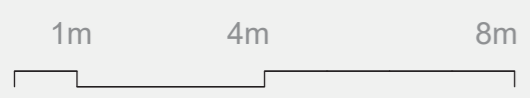
1:1000 In situ Plan

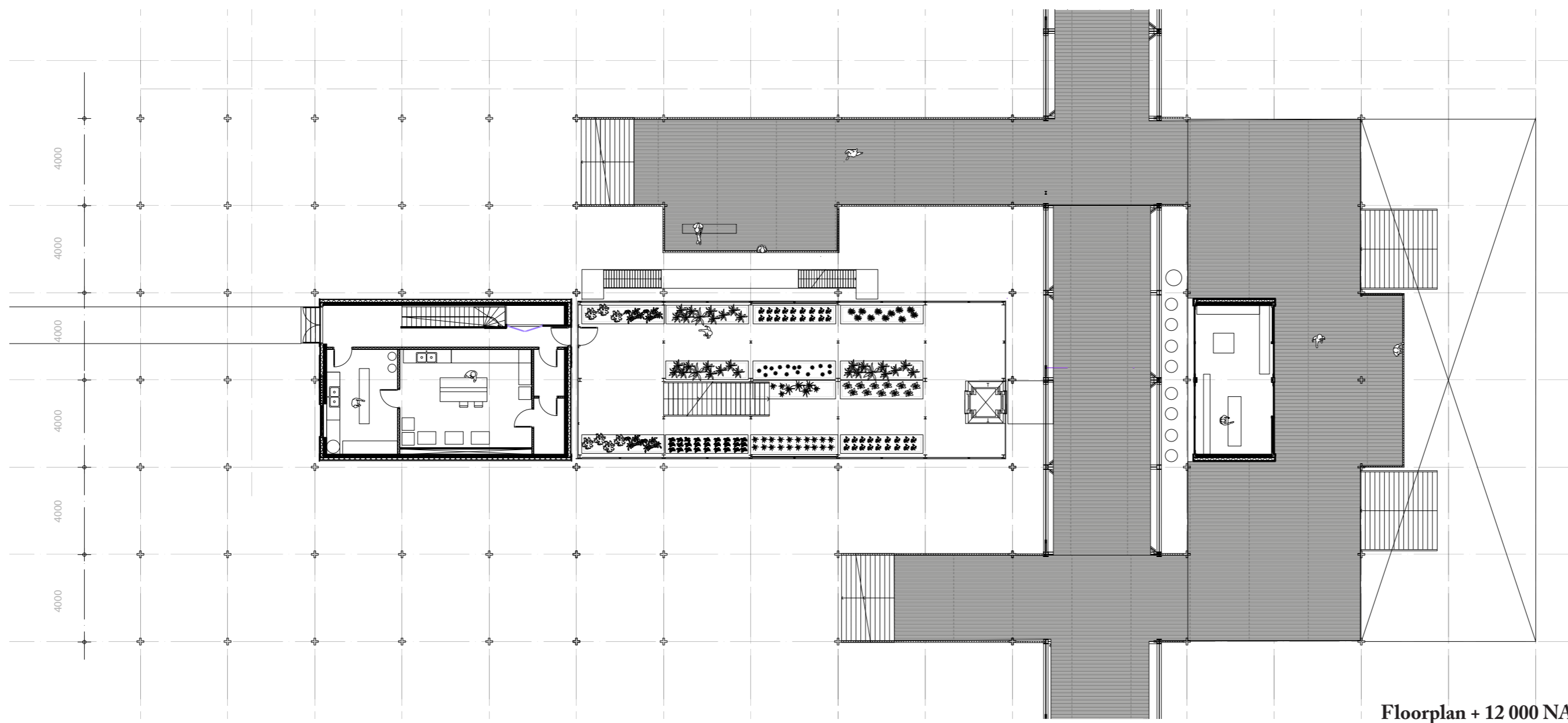
1. Remediation garden
2. Biomass selection and storage
3. Biomass pre-treatment
4. Fast Pyrolysis plant
5. Cyclone separator
6. Quencher (condensing processes)
7. Marine Fuel bunkering
8. Wastewater treatment plant
9. Wetlands
10. Recreational pathway
11. The Shell Pavilion





Longitudinal section





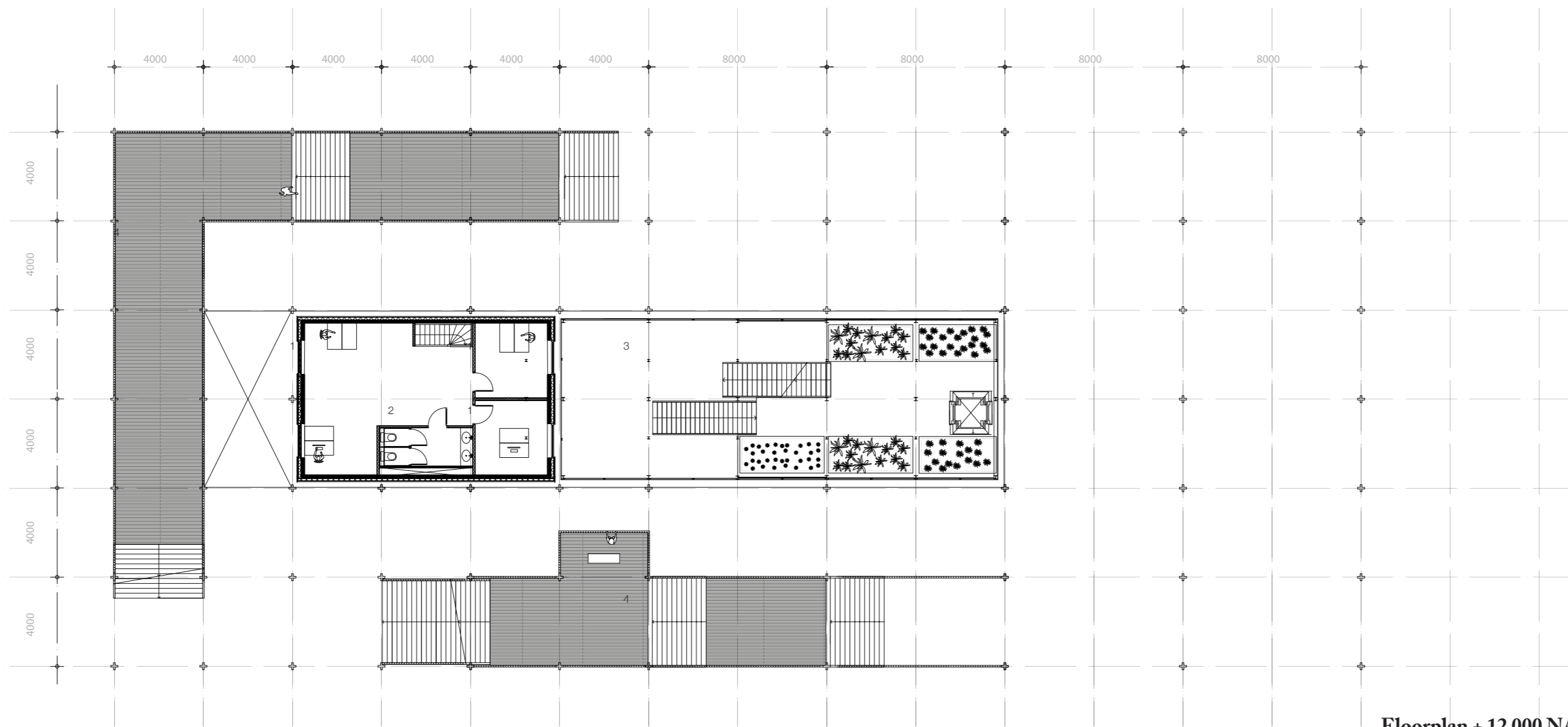
Floorplan + 12 000 NAP

Research Centre

- 1. Cell culture laboratory
  - 1.1 Preparation area
  - 1.2 Aseptic area
  - 1.3 Microscope room
  - 1.4 37 degree room
- 2. Greenhouse/nursery

Pavilion

- 4. Decking
- 5. Reception



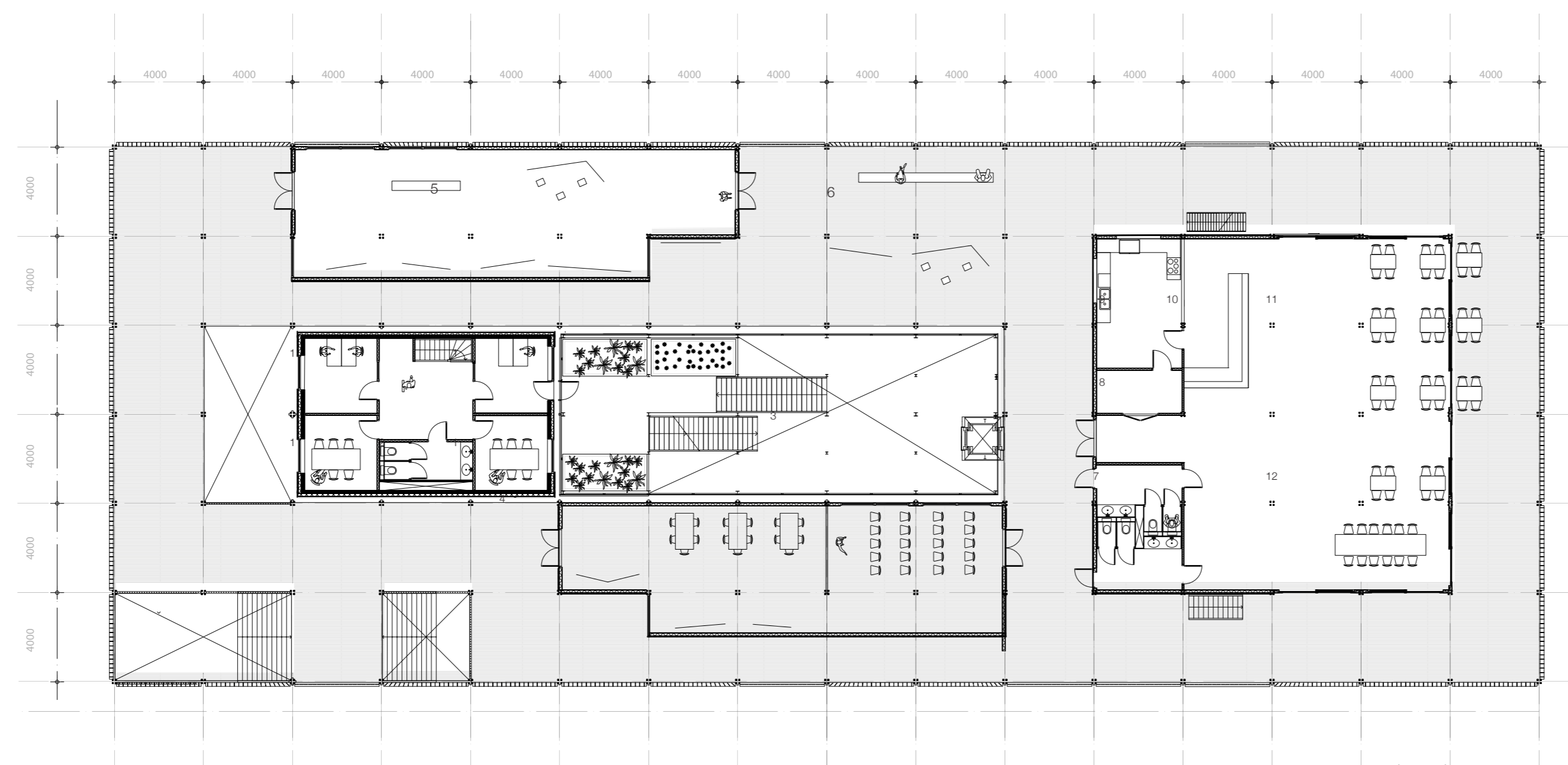
Floorplan + 12 000 NAP

Research Centre

- 1. Offices
- 2. Toilets
- 3. Greenhouse/nursery

Pavilion

- 4. Pathway



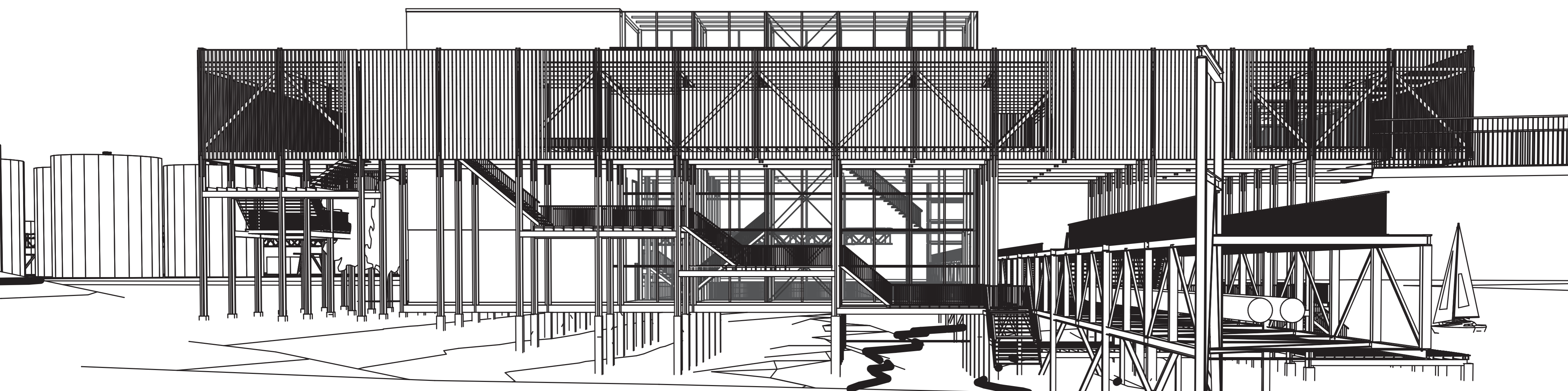
Floorplan + 12 000 NAP

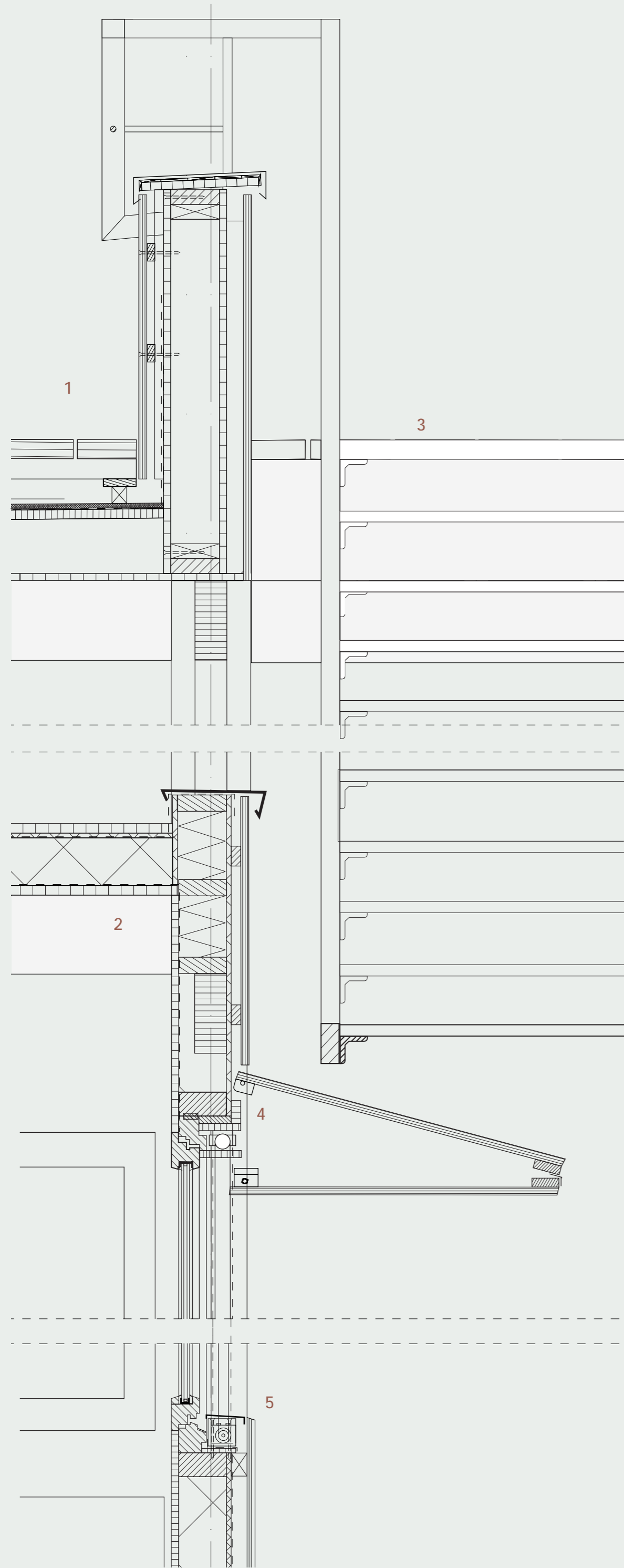
Research Centre

- 1. Offices
- 2. Toilets
- 3. Nursery

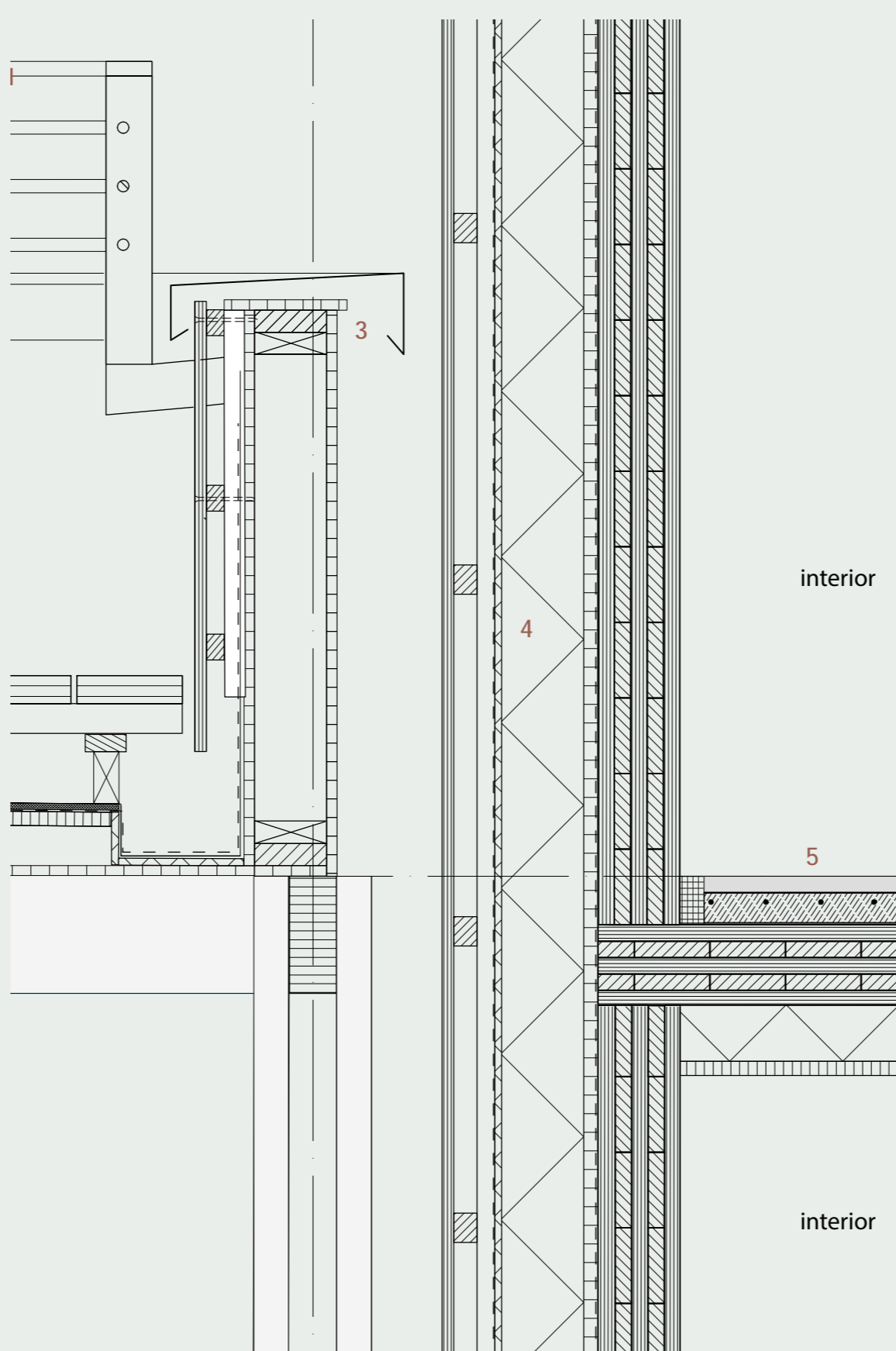
Pavilion

- 4. Permanent Exhibition area
- 5. Temporary Exhibition/Workshop area
- 6. Outside Exhibition area
- 7. Public toilets
- 8. Storage
- 9. Kitchen
- 10. Bar
- 11. Café
- 12. Conference area

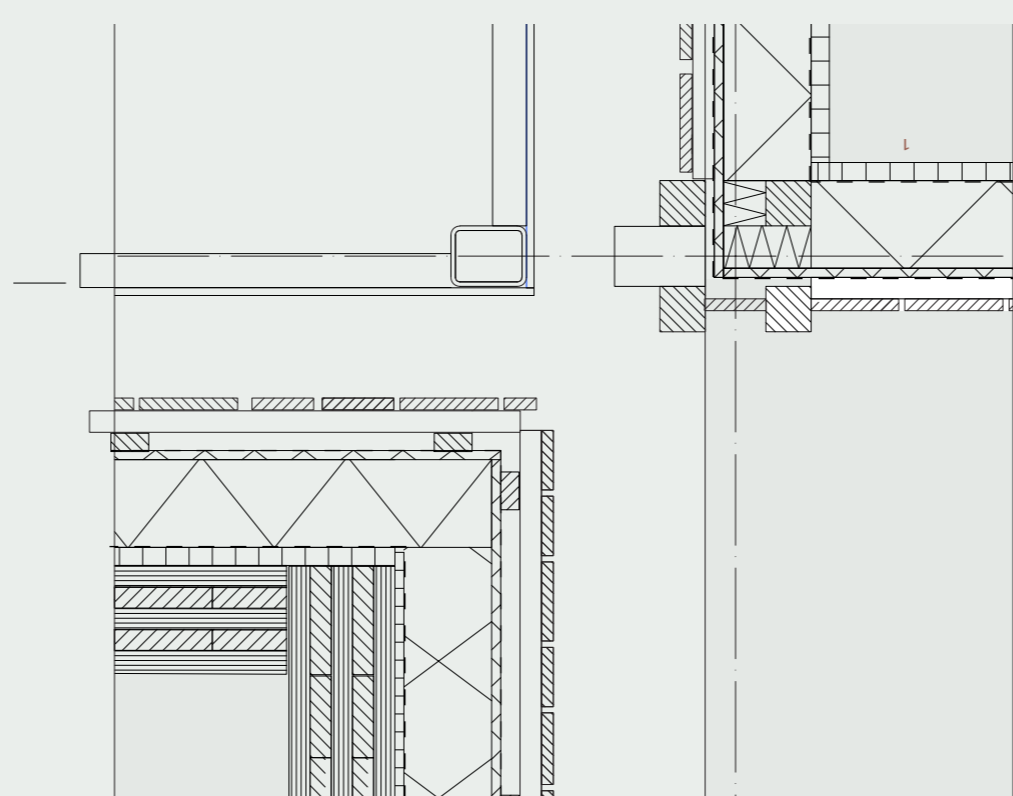




Vertical detail 1:10



Vertical detail 1:10



Horizontal detail 1:10

1. Vertical detail 1:10:

1. Roof deck construction:
  - Silver fir panks
  - Softwood battens
  - Protective mat
  - Sealing layer
  - Strandboard
  - Softwood beams with slight slope
  - Softwood plywood
  - Wooden finishing, Silver fir

2. Box in Box construction

- Roof finishing
- Damp proof layer
- 22 mm wood-fibre sheeting
- Vlax wool insulation
- Vapour barrier PE foil
- Softwood plywood
- CLT (5 layers, finished)

3. Galvanized steel stairs

- Galvanized steel baluster (10 mm rod, 80x30 UNP)
- Galvanized steel treads (220mm) connected by steel L-profiles and wooden stringers.

4/5. Window and window shutter

- Motor for hinged shutter
- 22mm hinged shutter
- Double glazing window in softwooden frame

2. Vertical detail 1:10:

1. Decking:
  - Floor finishing Silver fir wood
  - Plywood sheet
  - Wooden battens
  - Roof membrane, damp proof layer
  - Galvanized steel baluster
  - Small columns (60x60)
  - Primary beams (80x200)
  - secondary beams (80x200)

2. Offices outer wall:

- CLT, 5 layers
- 22 mm wood-fibre sheeting
- Facade membrane, damp proof layer
- 140 mm Vlax Insulation
- 120mm plywood sheeting
- Battens/ ventilated cavity
- Silver fir wood finishing

3. Office flooring

- Floor finishing
- Underneath floor heating
- CLT (5 layers, unfinished)
- Insulation vlax wool 120 mm
- Plywood

Horizontal detail 1:10:

The space where the technical meets the biological. The wooden construction of te permanent structure, the temporary wooden construction and the greenhouse constructed from galvanized steel.

1. Exhibition area:

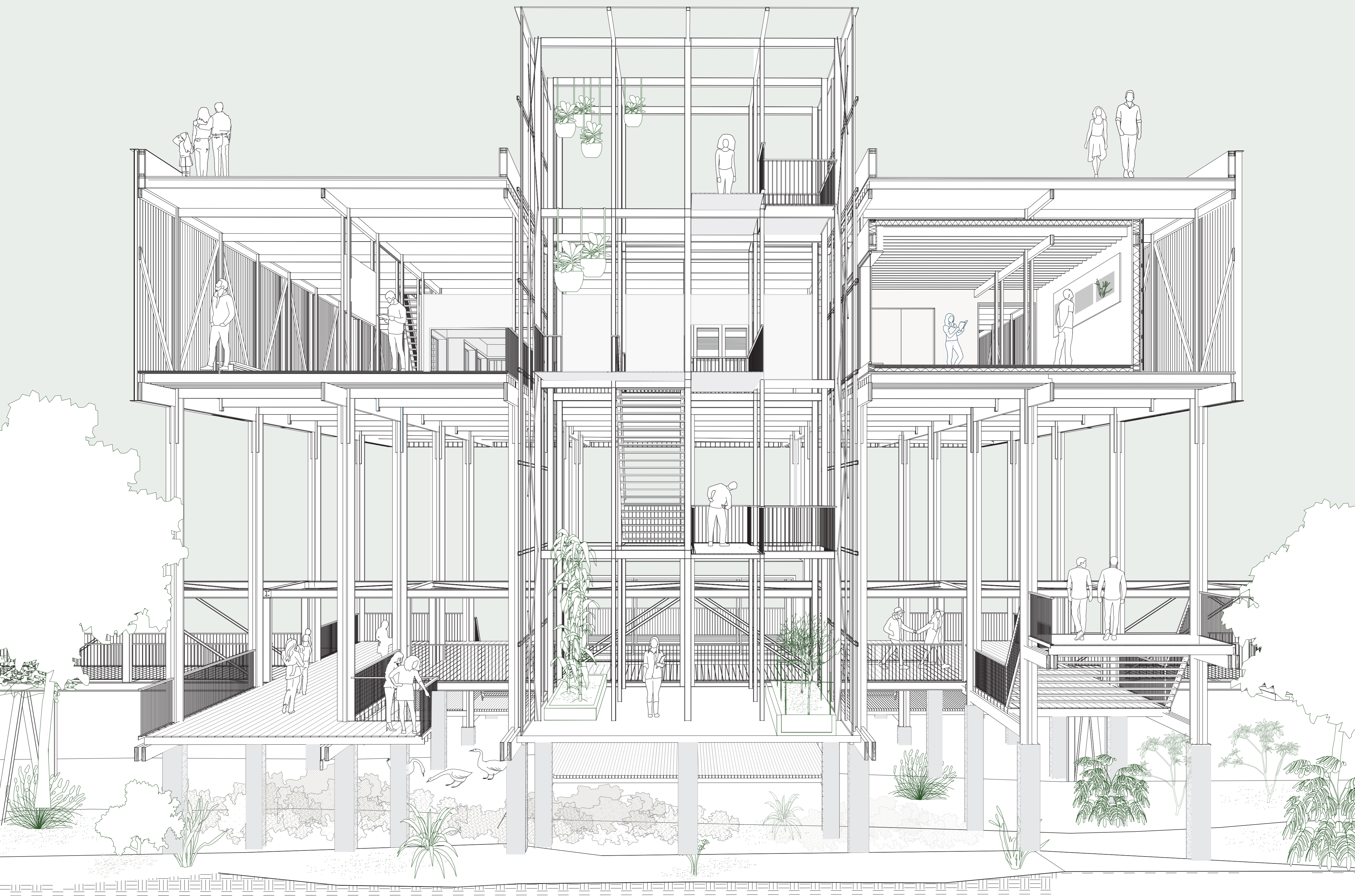
- Softwood plywood
- 140 mm insulation vlax wool
- Column structure four times 60x60
- 22 mm wood-fibre sheeting
- Facade membrane, damp proof layer
- Battens/ ventilated cavity
- Silver fir wood finishing

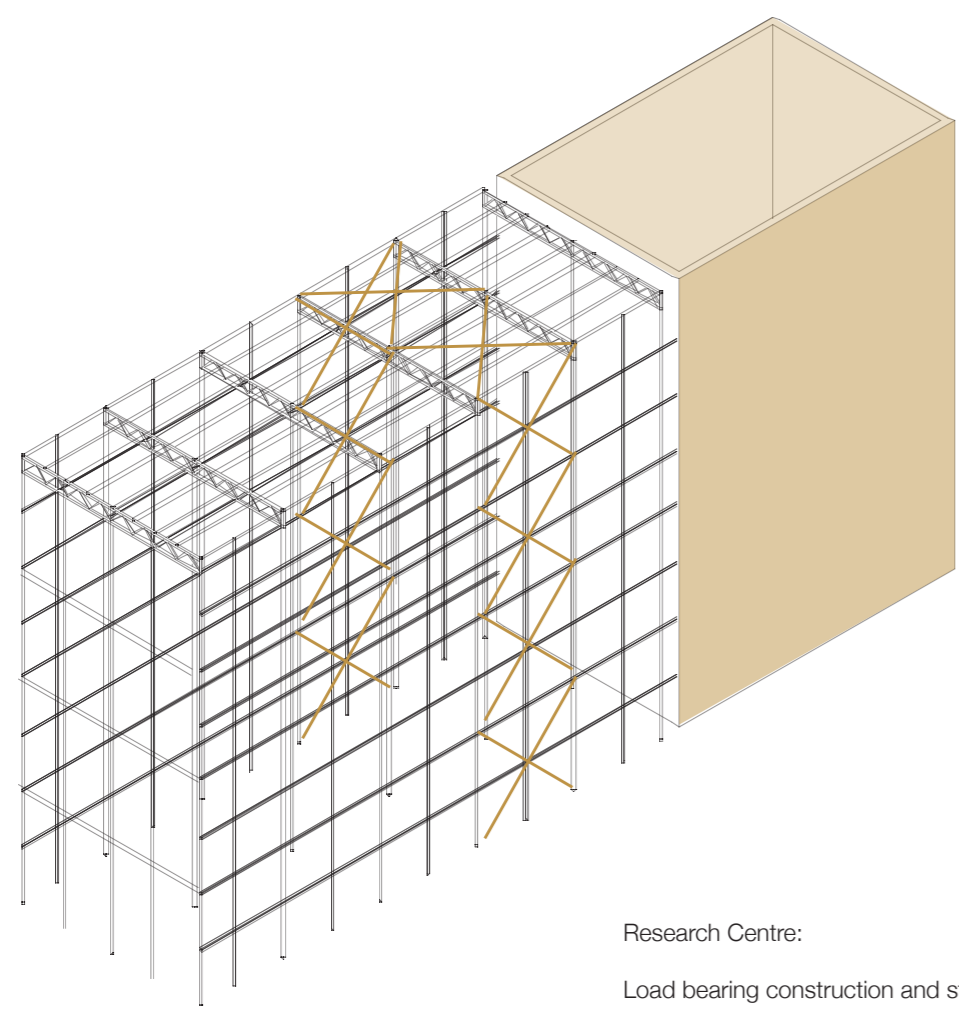
2. Offices:

- CLT, 5 layers
- 22 mm wood-fibre sheeting
- Facade membrane, damp proof layer
- Battens/ ventilated cavity
- Silver fir wood finishing

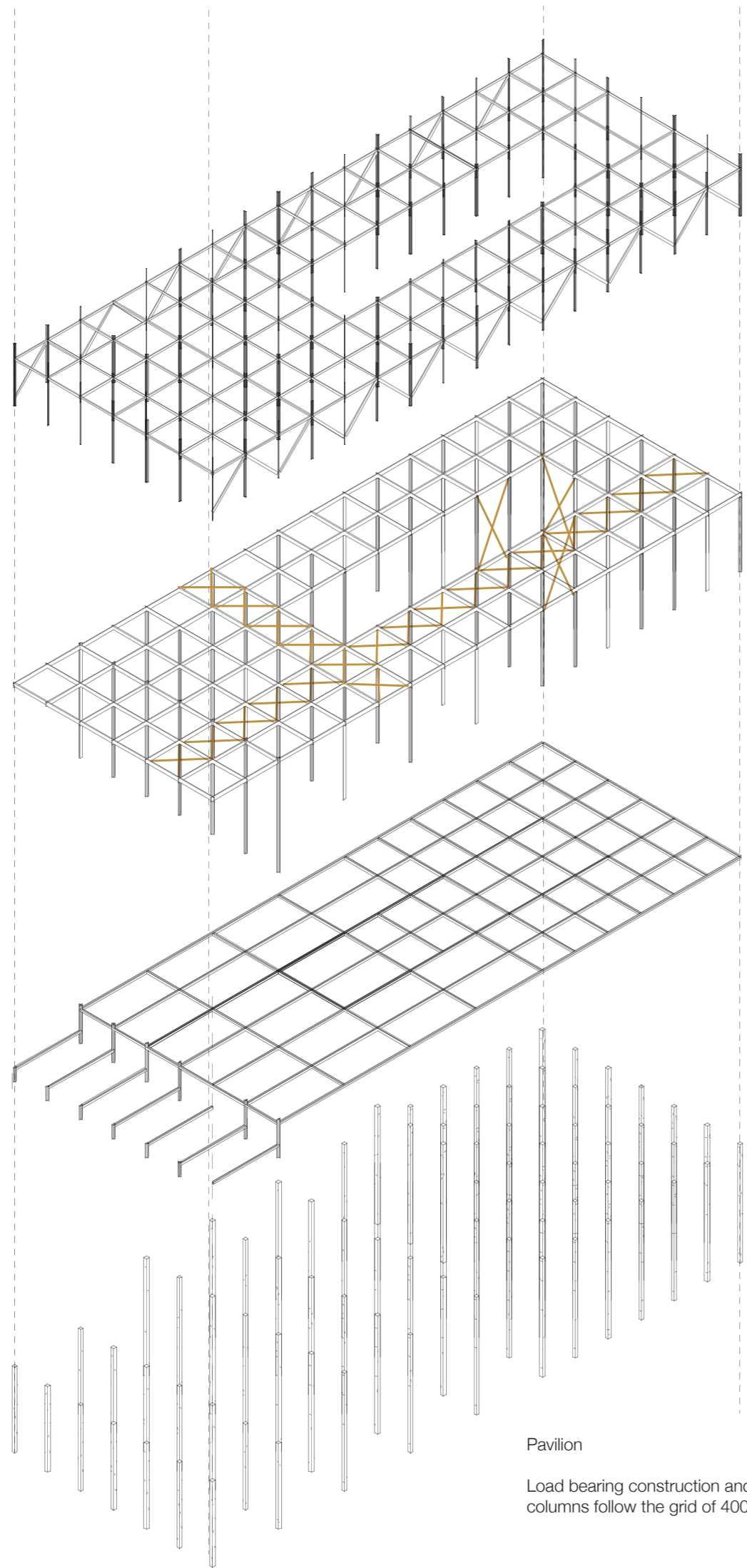
3. Nursery:

- Steel profiles (80x100)
- UNP profiels (80x40)
- Single glass

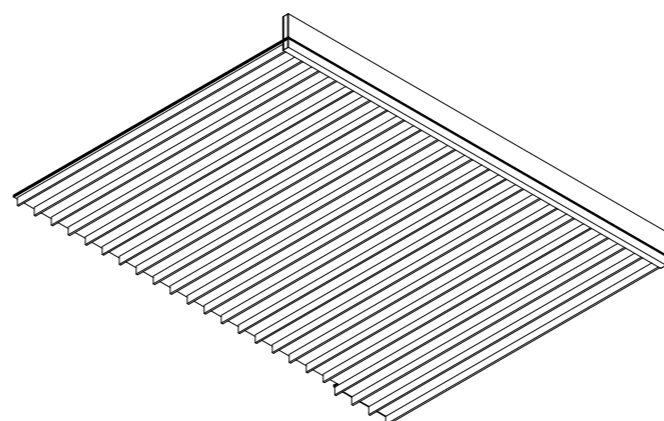




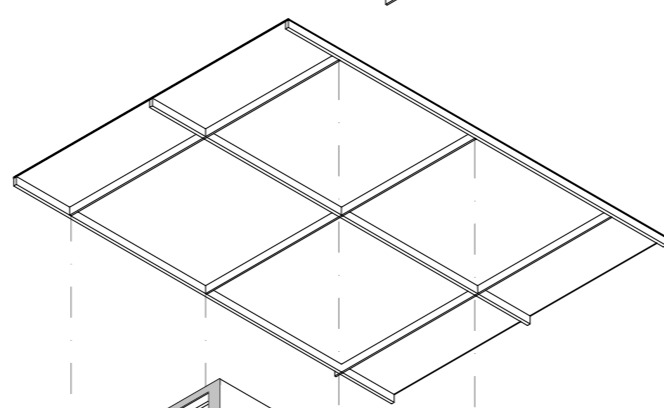
Research Centre:  
Load bearing construction and stability



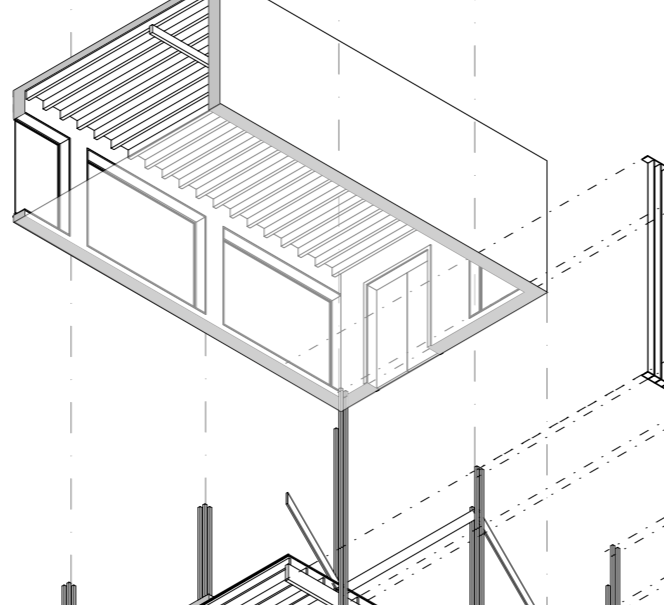
Pavilion  
Load bearing construction and stability  
columns follow the grid of 4000x400



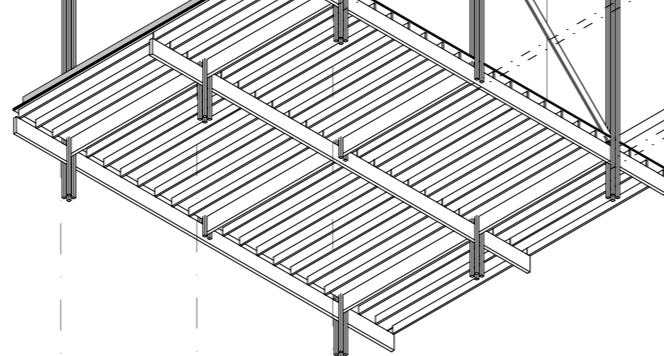
Secondary beams (80x200)  
Silver fir decking



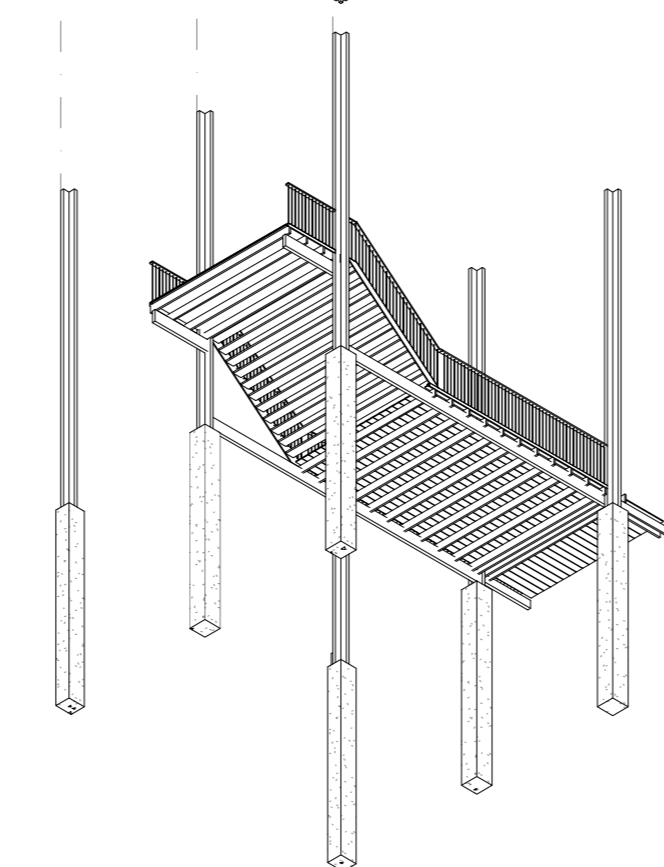
Squared columns 4 pieces (60x60)  
Primary beams (80x400)  
Secondary beams (80x200)



Box in Box construction

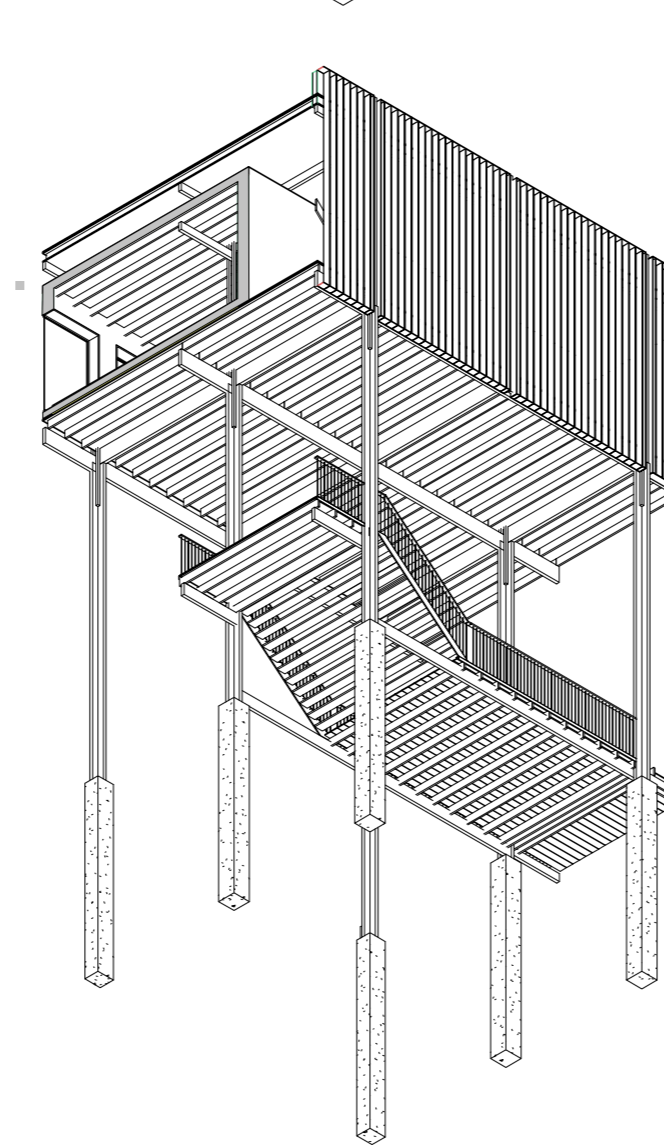


Corten steel facade blinds 180mm x  
2200mm (hoh 200mm)  
Connecting L-profiles (160x80)  
Squared columns 4 pieces (60x60)  
Cross columns (400x400, flange width-  
ness 80mm)  
Primary beams (80x400)  
Secondary beams (80x200)

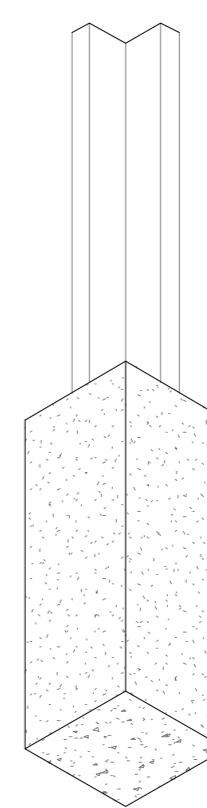
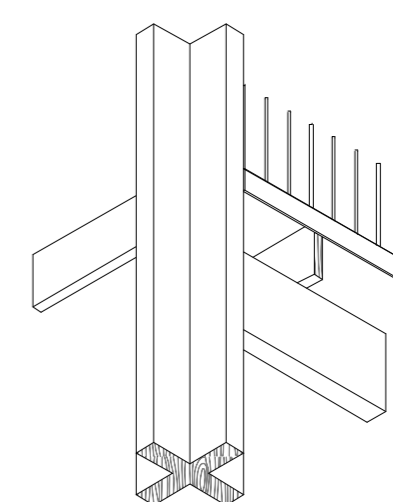
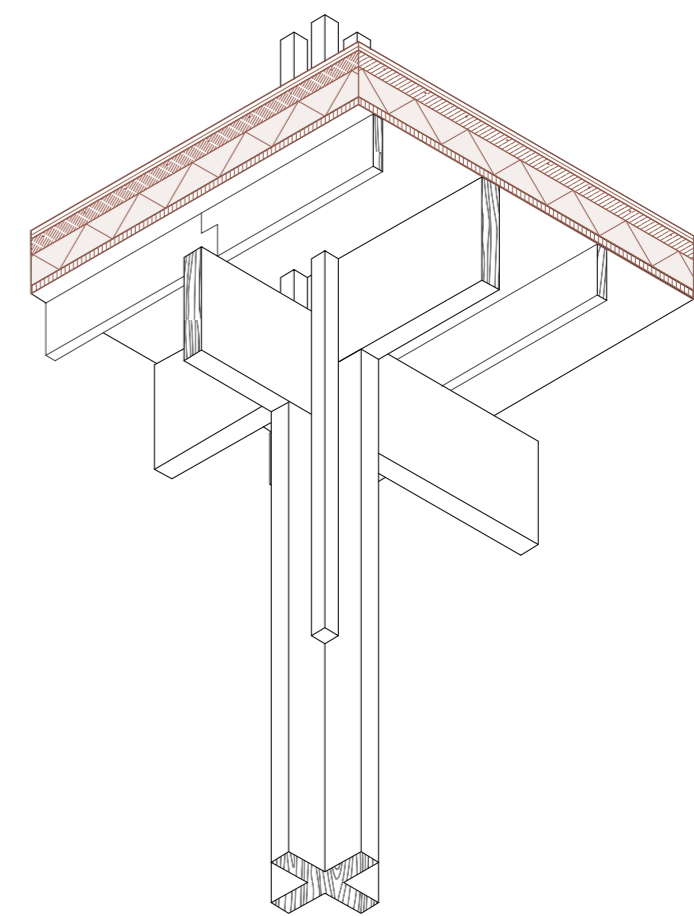
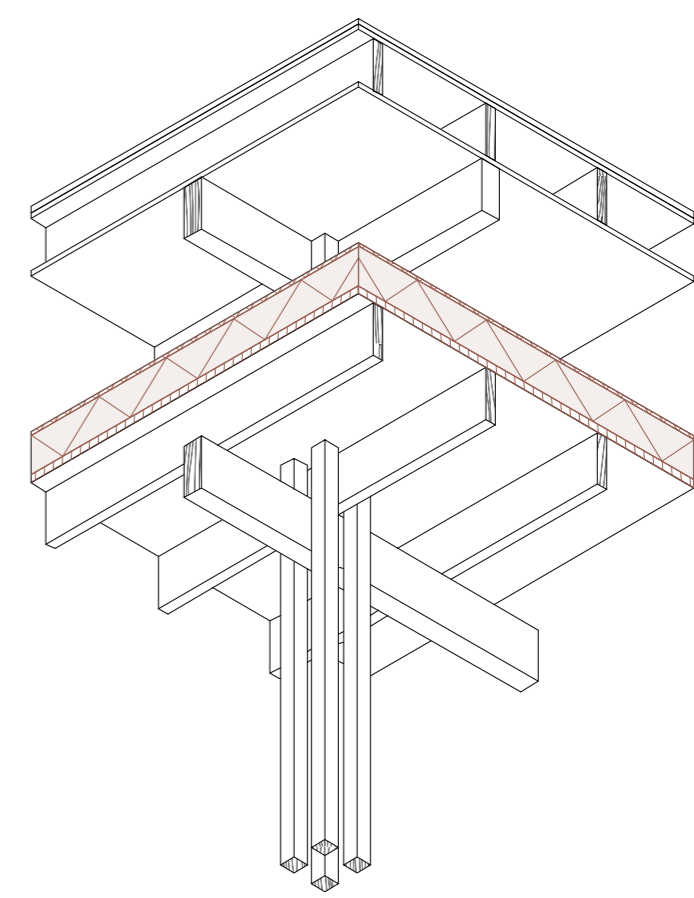


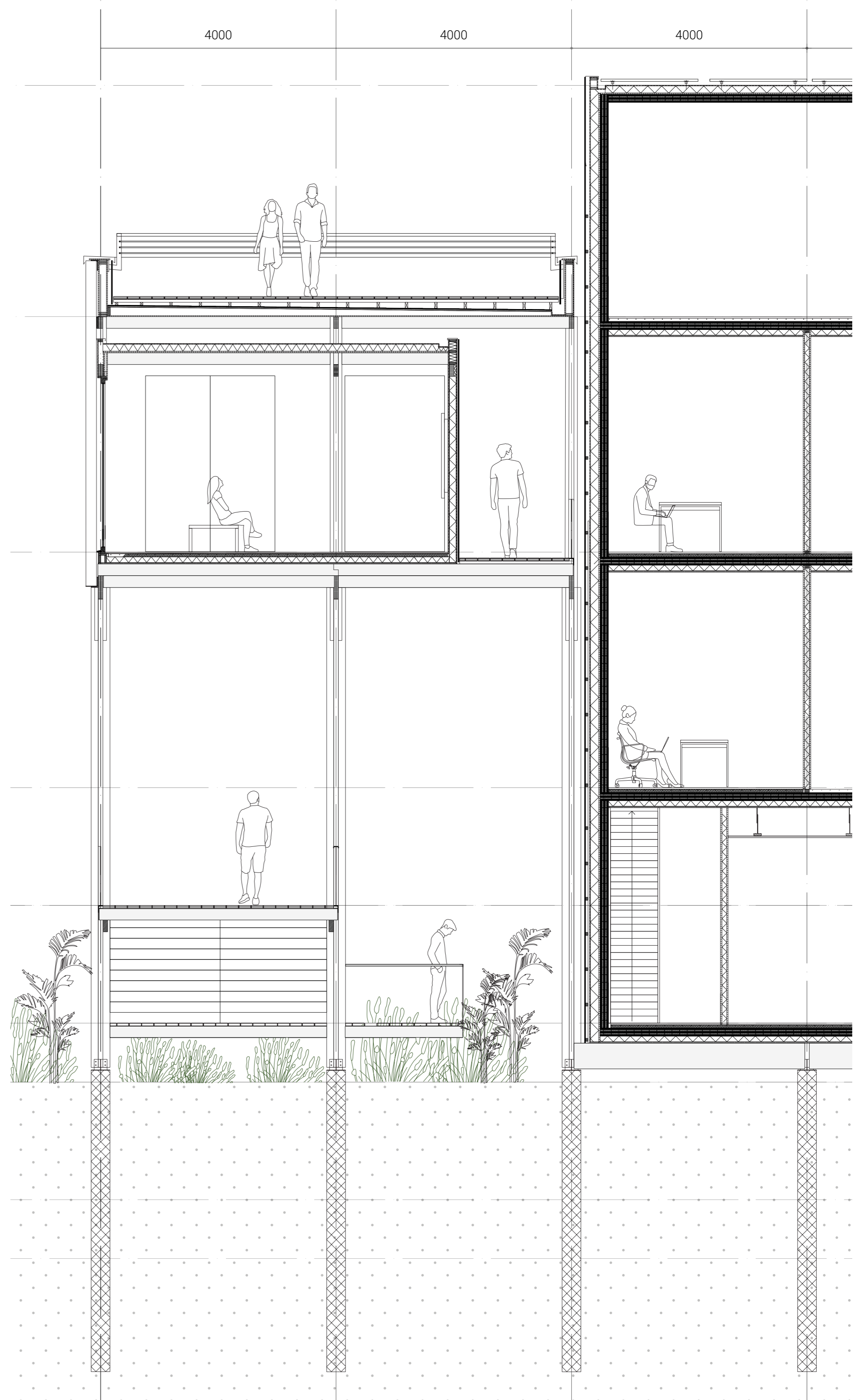
Galvanized steel baluster (10 mm steel  
rod, 80x30 UNP)  
Beams (80x200)  
Silver fir wooden flooring

Stairs:  
Galvanized steel baluster, galvanized  
steel treads connected by steel L-profiles  
and wooden stringers.



Galvanized steel baluster (10  
mm steel rod, 80x30 UNP)  
Squared columns 4 pieces  
(60x60)  
Cross columns (400x400, flange  
widthness 80mm)  
Primary beams (80x400)  
secondary beams (80x200)







*Sorghum* sp.



*Anthyllus vulneraria* L.



*Thlaspi caerulescens*



*Helianthus annuus*



*Brassica napus*



*Arabidopsis halleri*



*Viola boasbanensis*



*Brassica juncea*



*Lesquerella fendleri*



*Lunaria annua*



*Vetiveria zizanioides* L.



*Typha angustifolia*



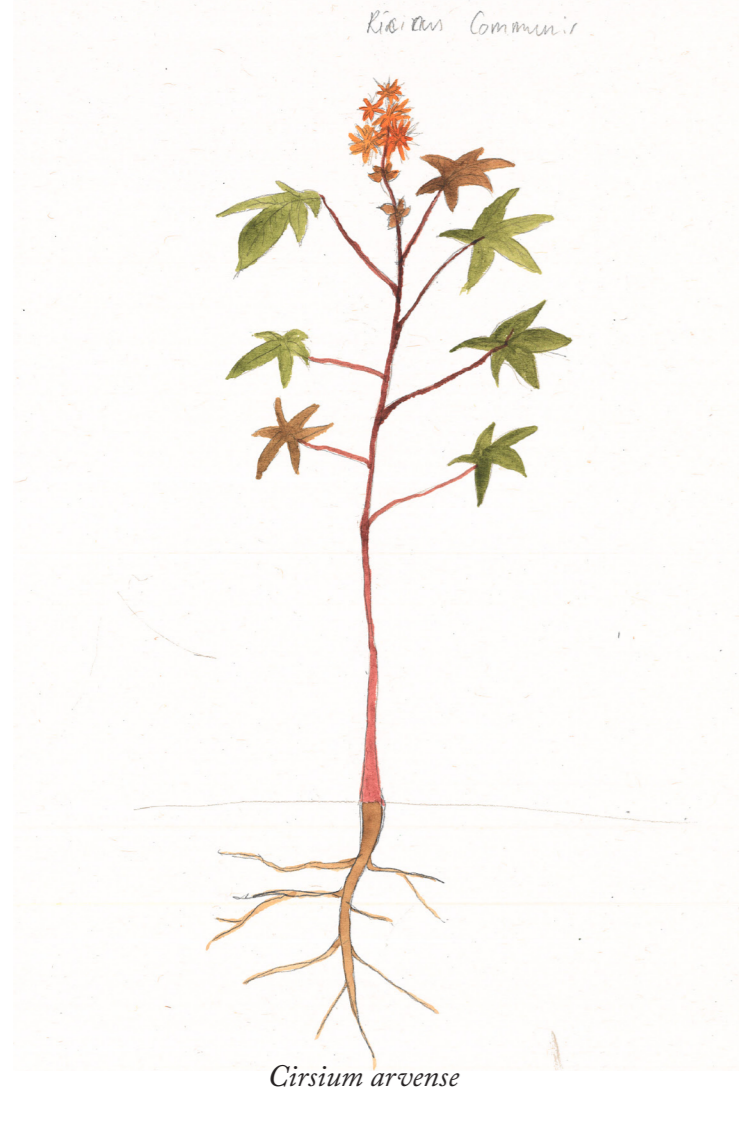
*Phalaris arundinacea*



*Panicum virgatum* L.



*Miscanthus x Giganteus*



*Cirsium arvense*



*Jatropha curcas*



*Salix nigra*



*Populus hybrids*



*Salix* spp.



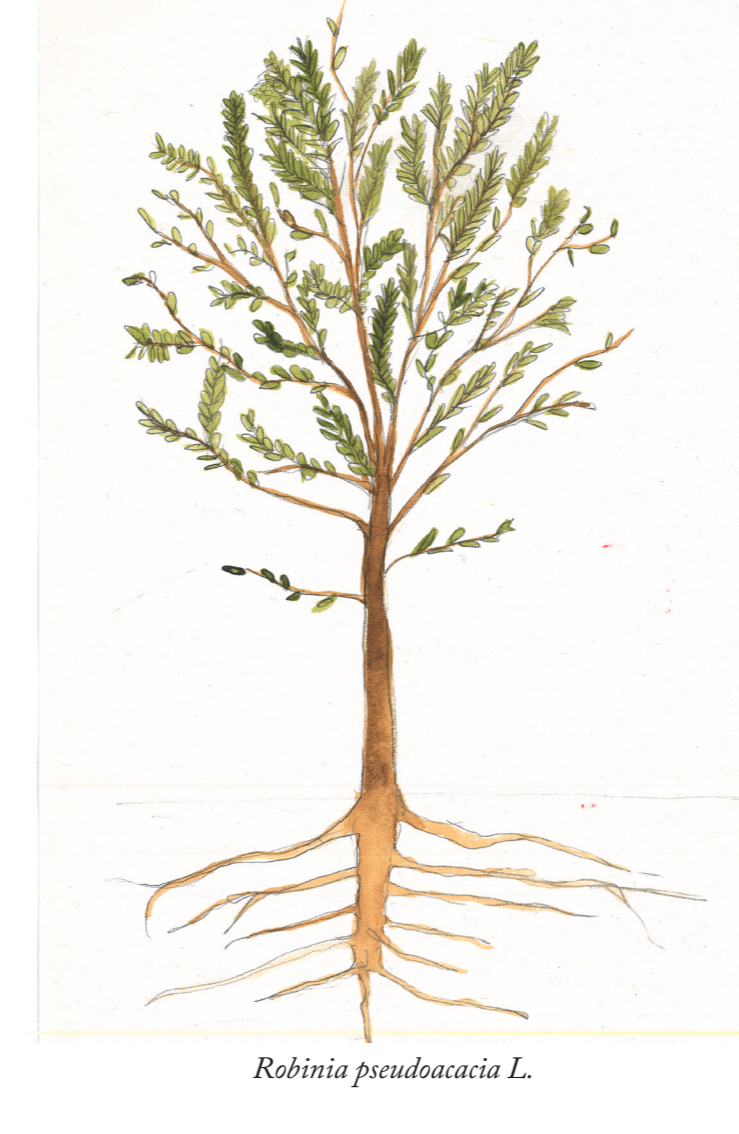
*Ricinus communis* L.



*Carthamus tinctorius* L.



*Cannabis sativa*



*Robinia pseudoacacia* L.



*Eicbhornia crassipes*