

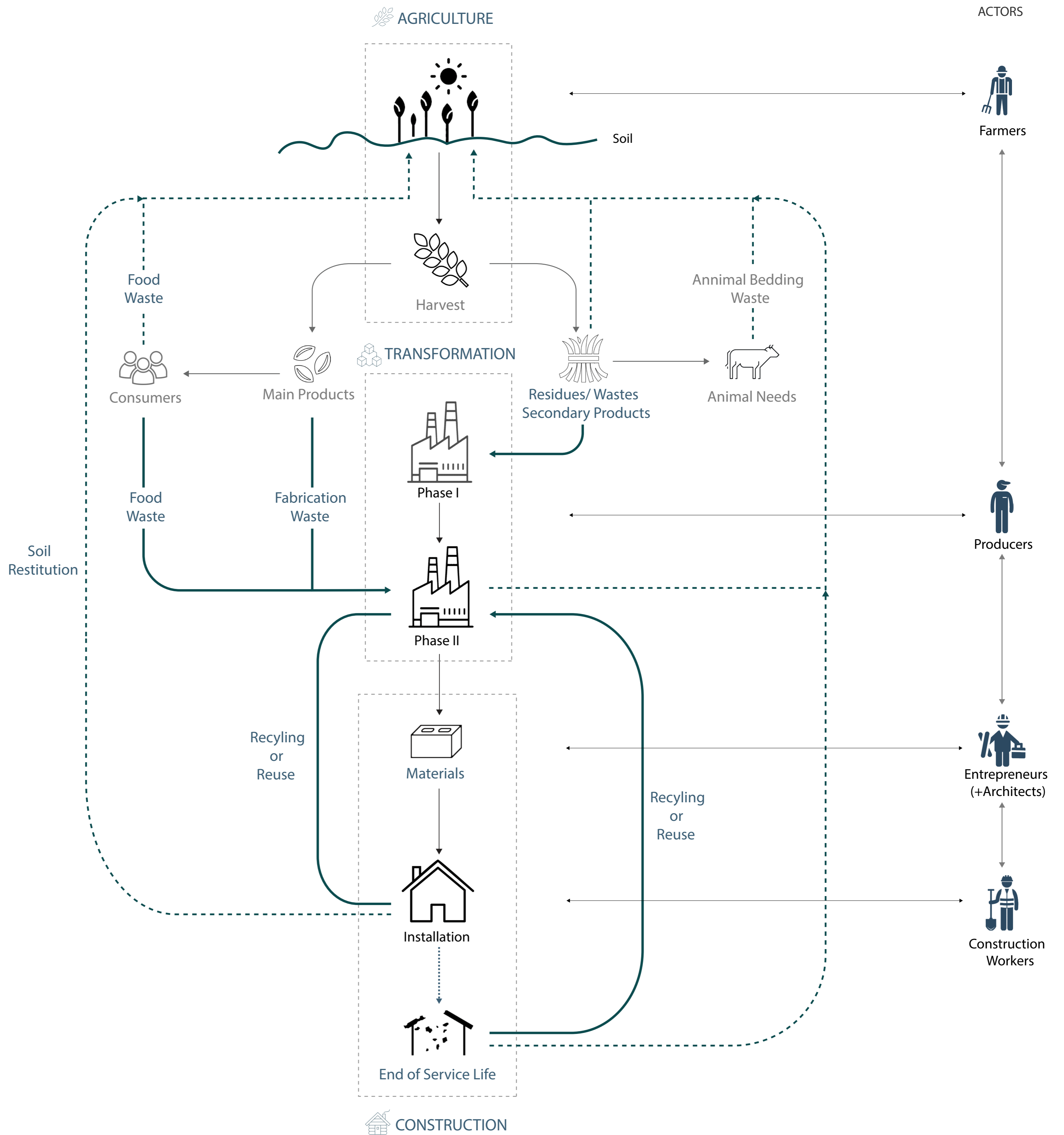
Valorization Cycle for Residues

The cycle illustrates in detail all the operational steps and relations to ensure the association of construction and agriculture under the roof of biosourced materials in Belgium. Encouraging agro-ecological methods and less energy consuming techniques is the main goal of the cycle.

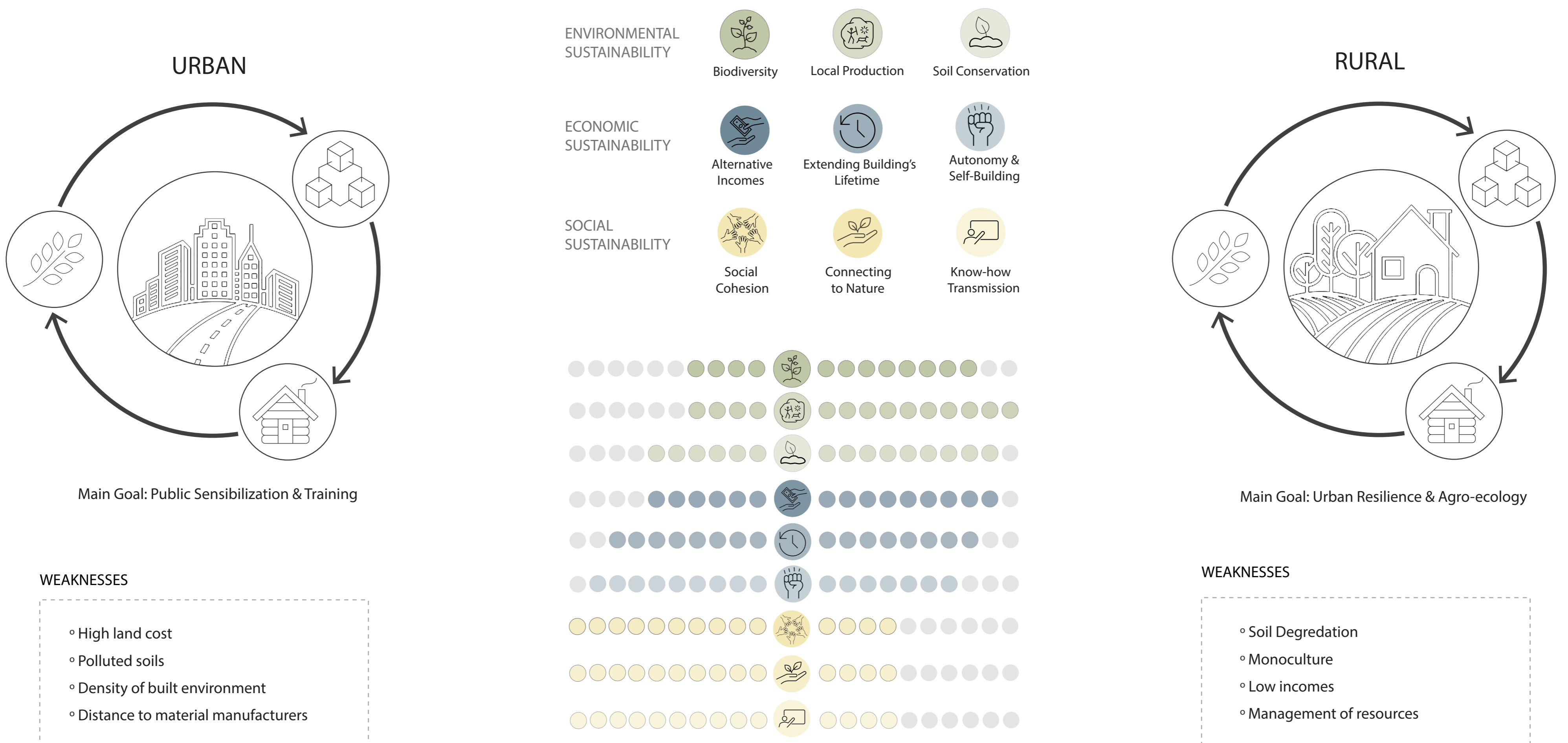
There some principles to follow to ensure the viability and efficiency of the cycle as: protecting the soil health, respecting to current use of residues, providing an efficient connection between main actors, increasing the life time of buildings, providing and easy access to materials, create awareness and to consider the material's return to soil at the end of the service life.

Fundamental Principles

- ← - - - Ensure Soil Conservation
- ← Respecting Current Uses
- ↕ Provide Synchronization between actors
- € Balance between Life Span & Price
- 📦 Provide Access to Materials
- 👤 Create Public / Actor Training
- 🏠 Consider the End of Life
- ➔ Increase Valorization Opportunities



Cycle to Reinforce Sustainability



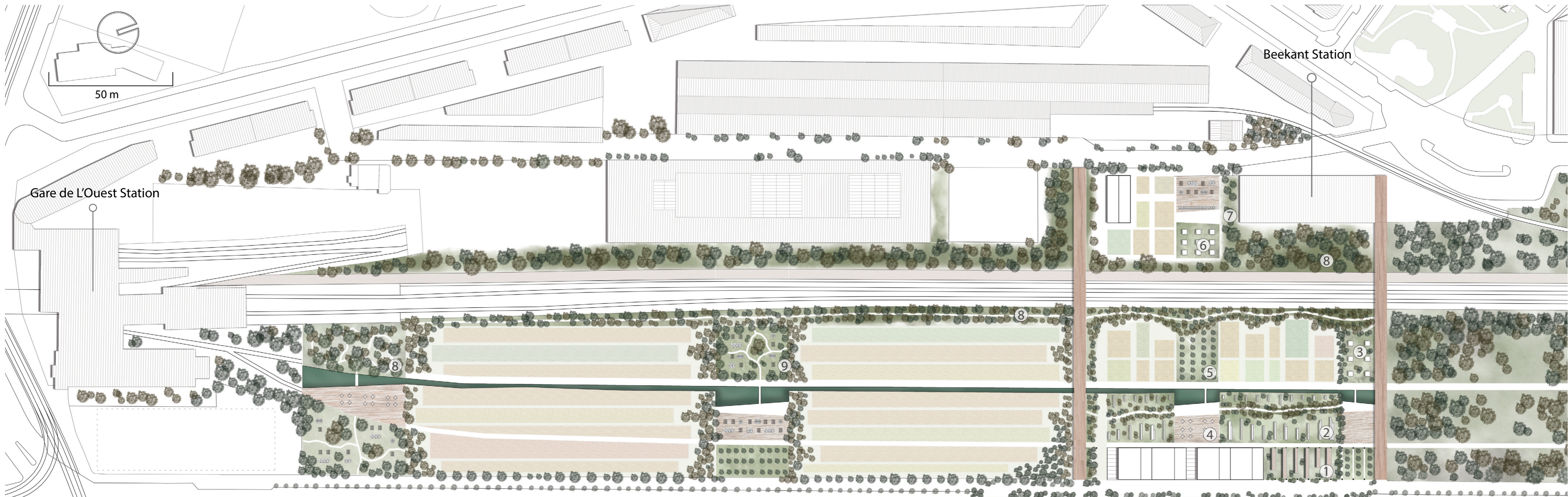
MOLENBEEK: Interconnecting the Neighbourhood

Molenbeek due to its position has a great potential to offer a junction between natural networks: green areas, productive lands and aquatic resources. The neighborhood could offer a great connection of blue, green and yellow networks between the peripheries and Bruxelles.

Even if, its location offers a huge opportunity, the neighbourhood has a very dense built environment, there is a lack of public equipments and the railroad divides physically the community in two sides which remains highly disconnected.

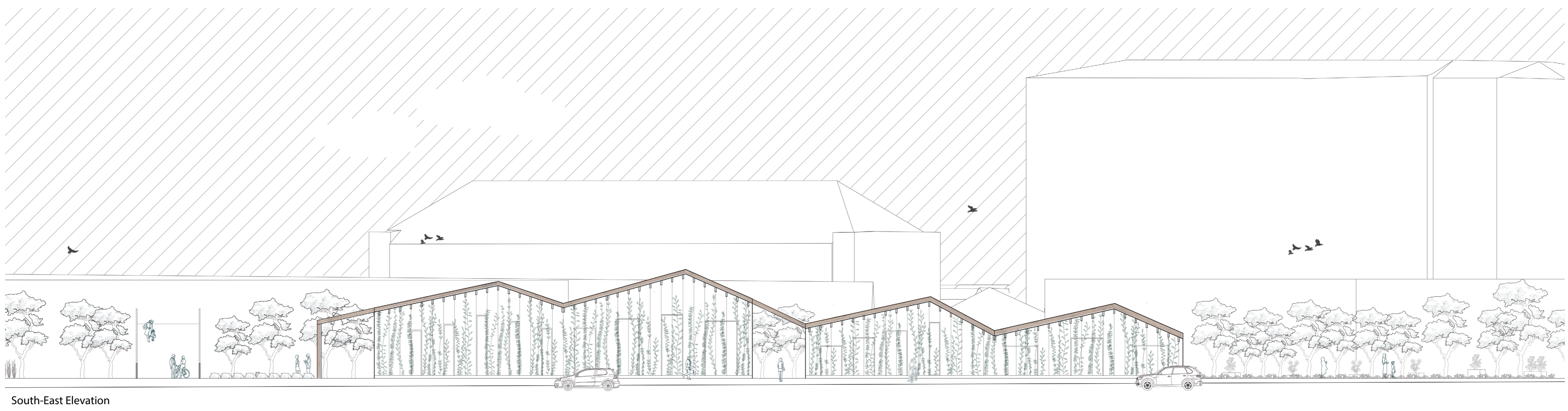
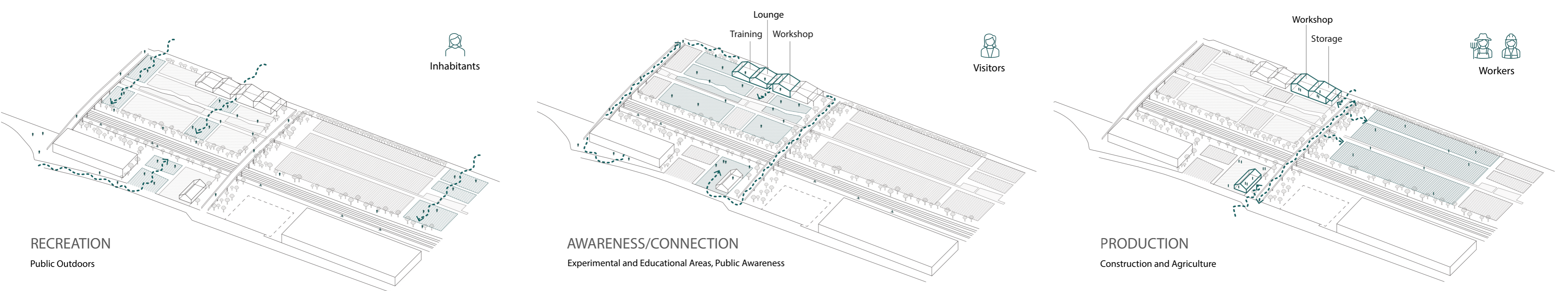
The area around the railroad could play a crucial role to interconnect both sides of Molenbeek but also to connect natural networks and inhabitants. The project aims to offer equipments both for the well-being of nature and inhabitants while connecting the elements of natural and built networks.

Creation of project to link physically the both sides of the community, inhabitants, the natural and built environments would offer a more resilient environment by insuring a better cohesion between the nature and inhabitants.

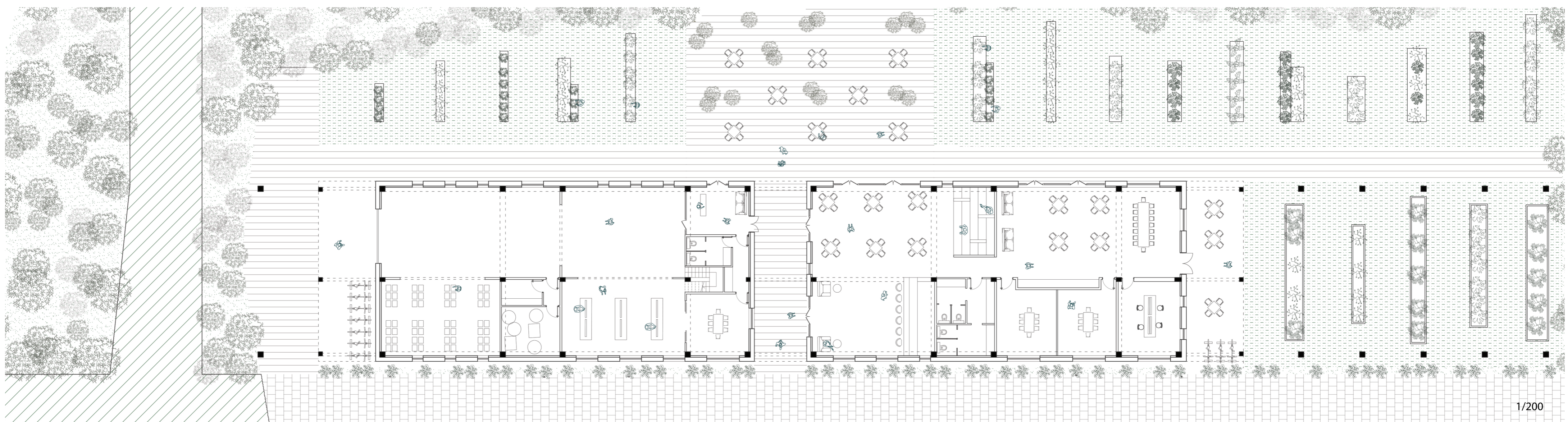


1. Farmland Exhibition
2. Educational Production
3. Demonstrative Agriculture
4. Mixed Use Terrace
5. Fruit Trees/ Grove
6. Community Garden
7. Community Plaza
8. Natural Species Preservation
9. Community Park

COMMUNITY CENTER COMMUNITY CONNECTOR AGRICULTURAL PRODUCTION COMMUNITY CONNECTOR AGRICULTURAL PRODUCTION COMMUNITY CONNECTOR AWARENESS COMMUNITY CONNECTOR



South-East Elevation

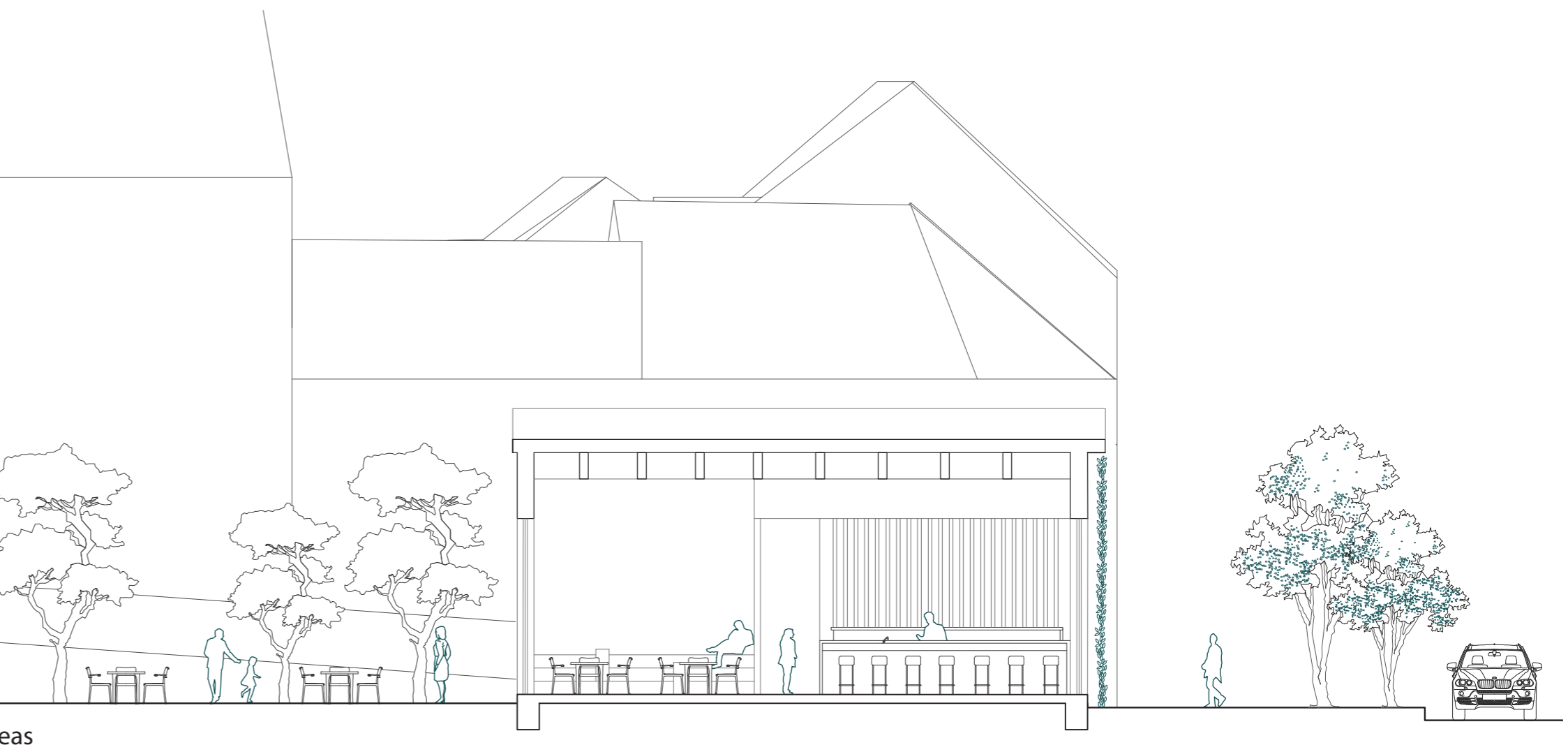
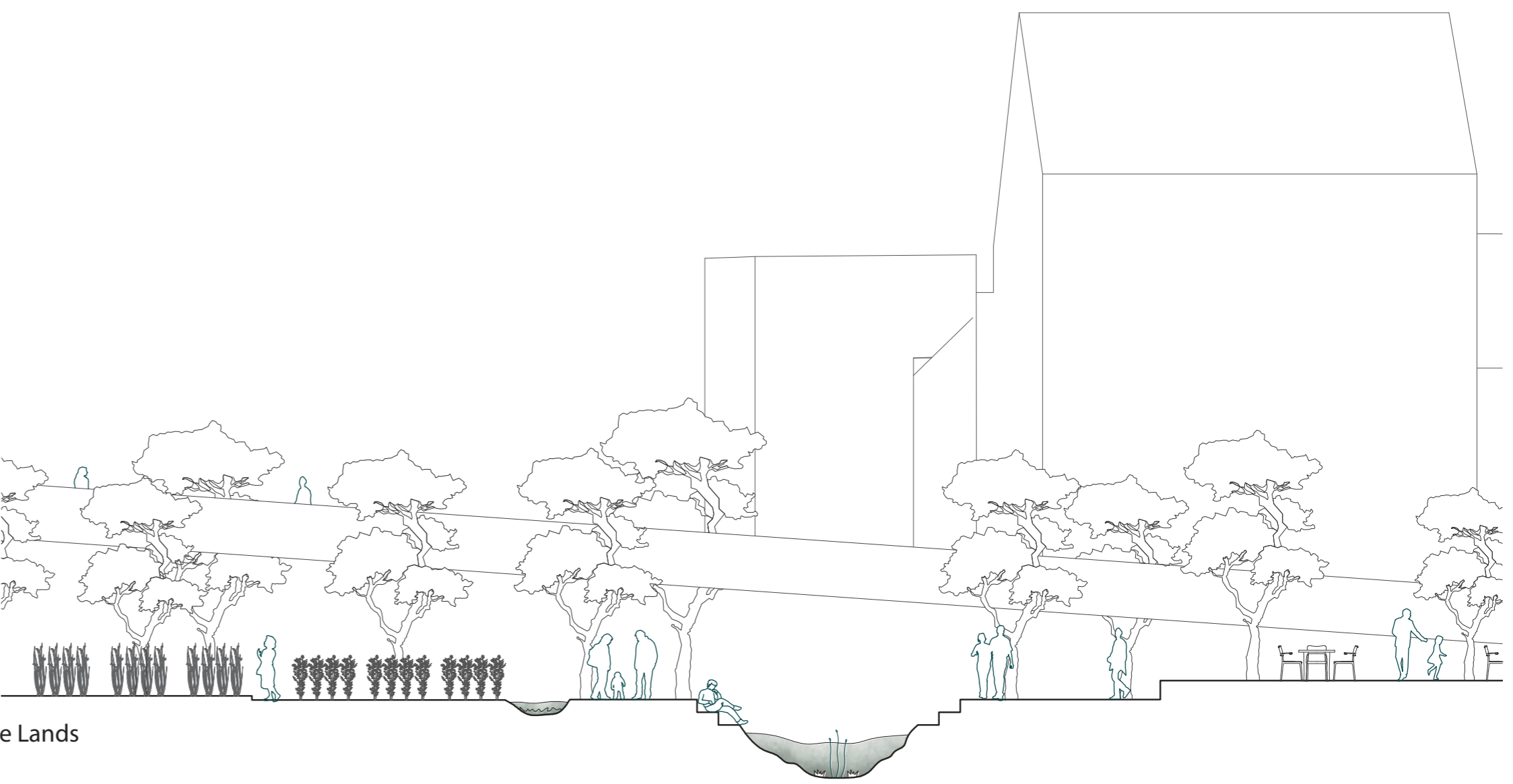
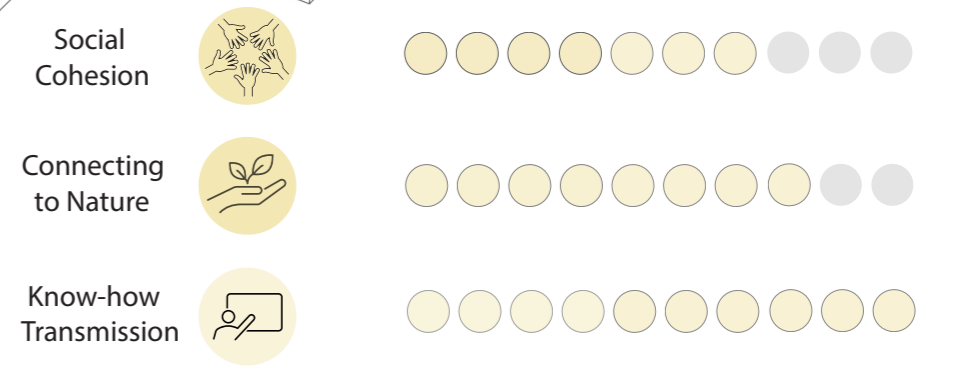
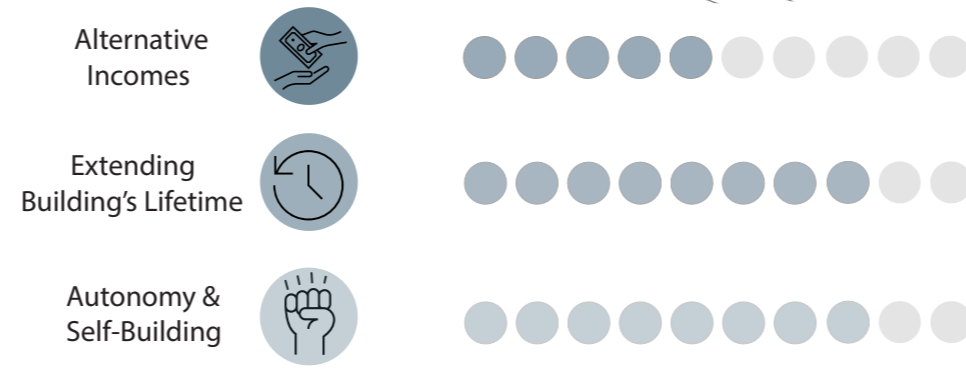
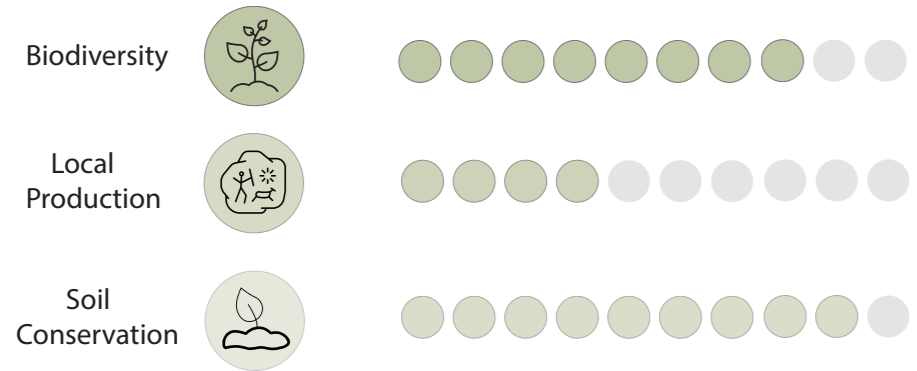
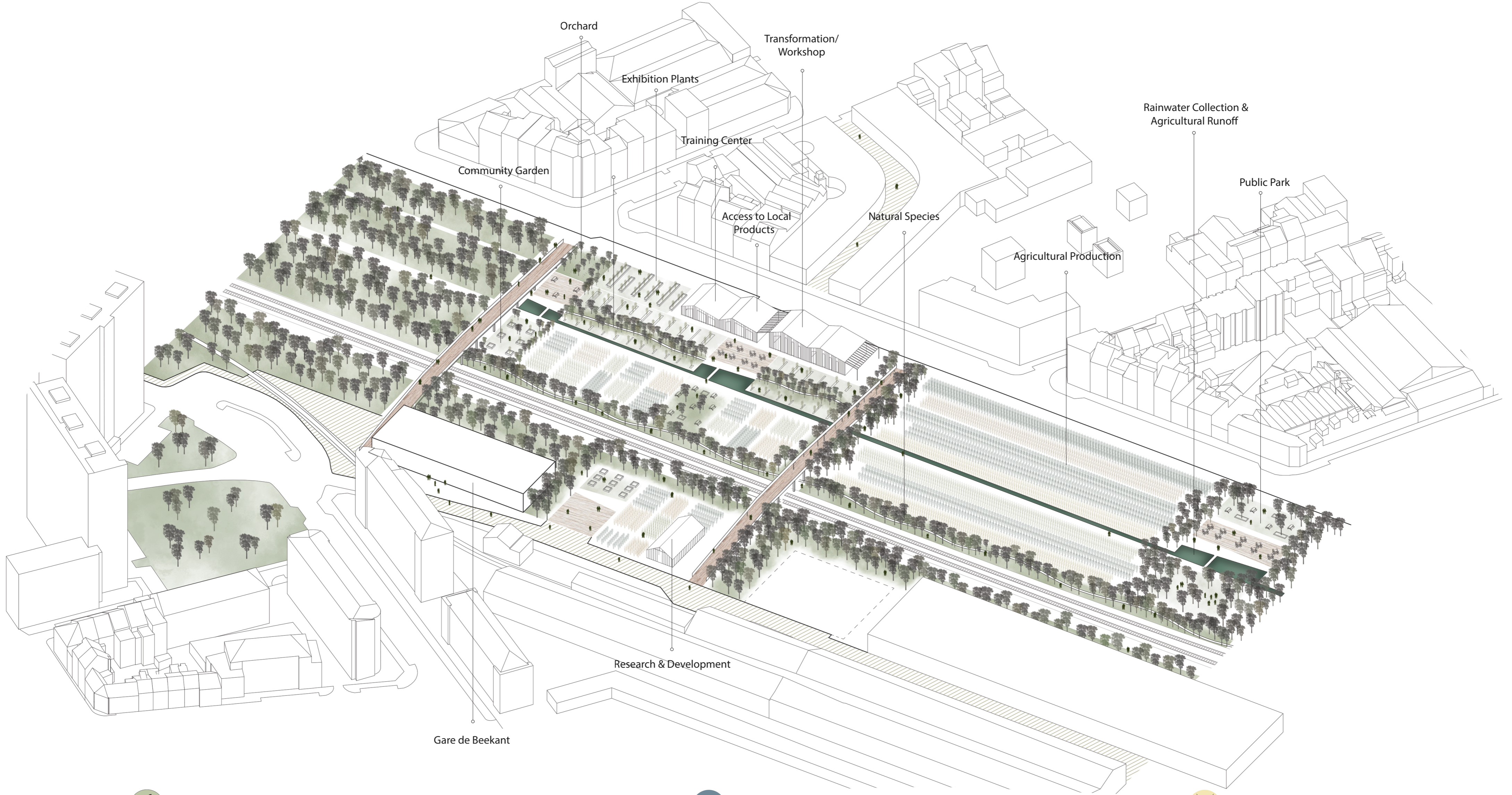
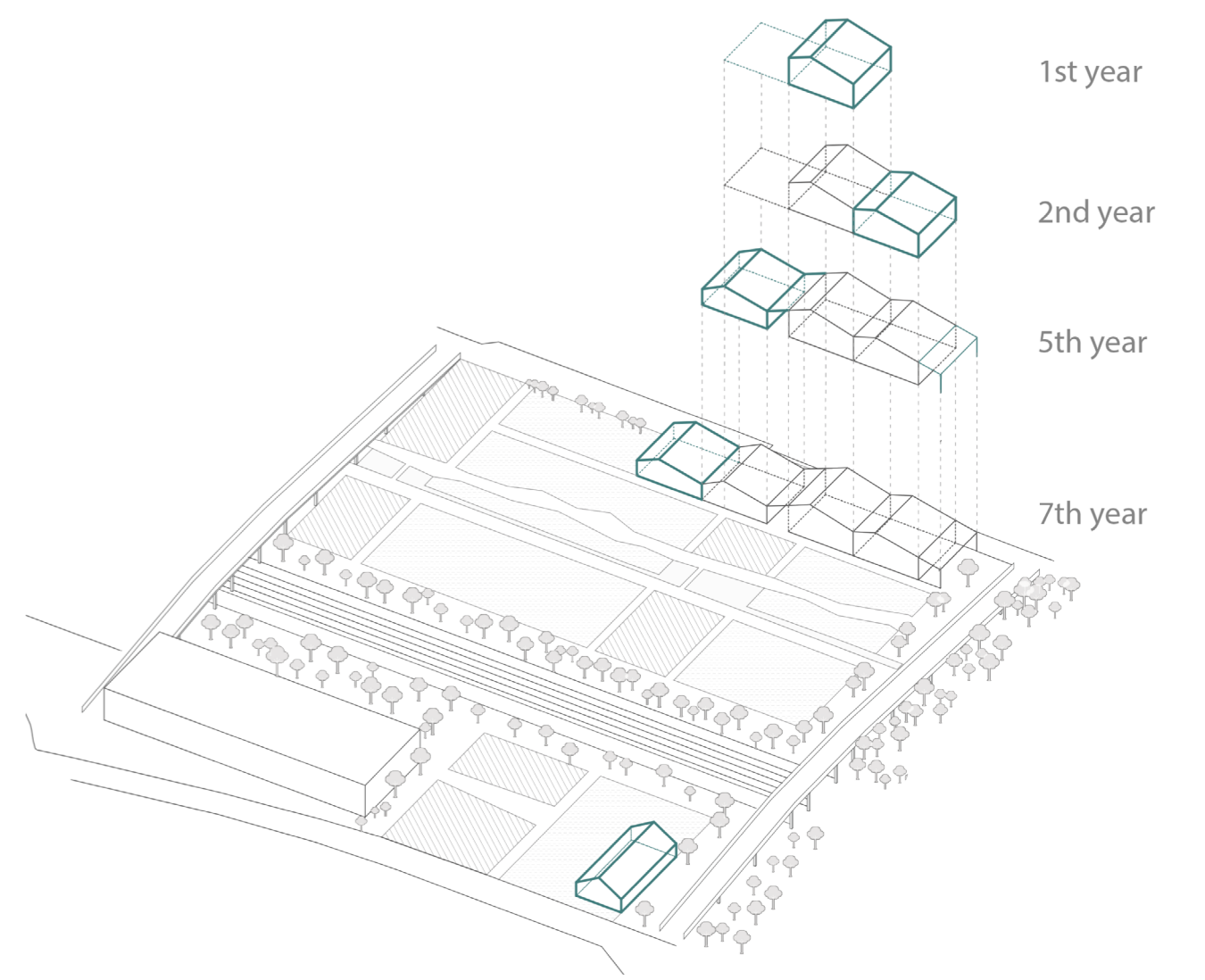
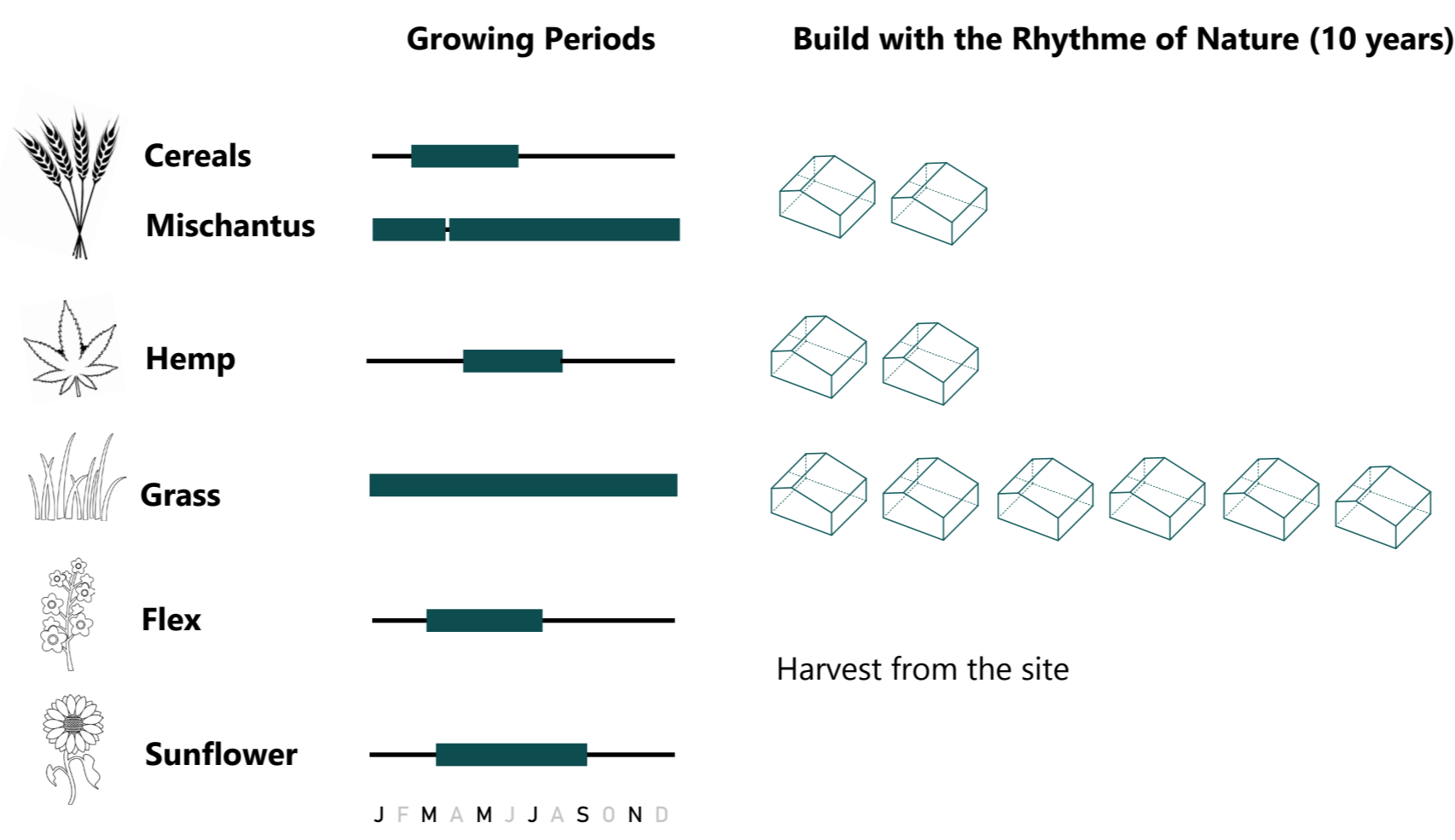


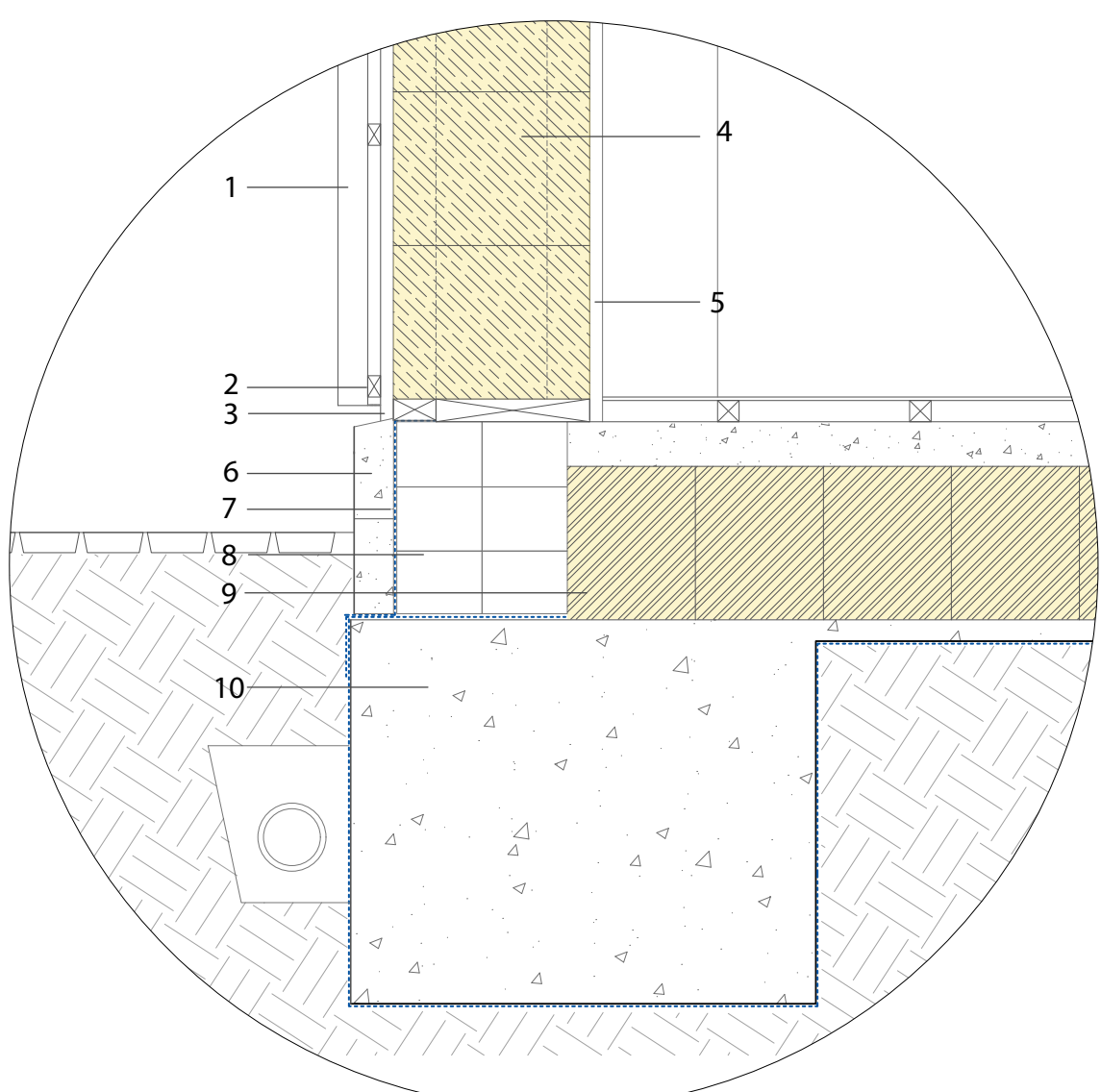
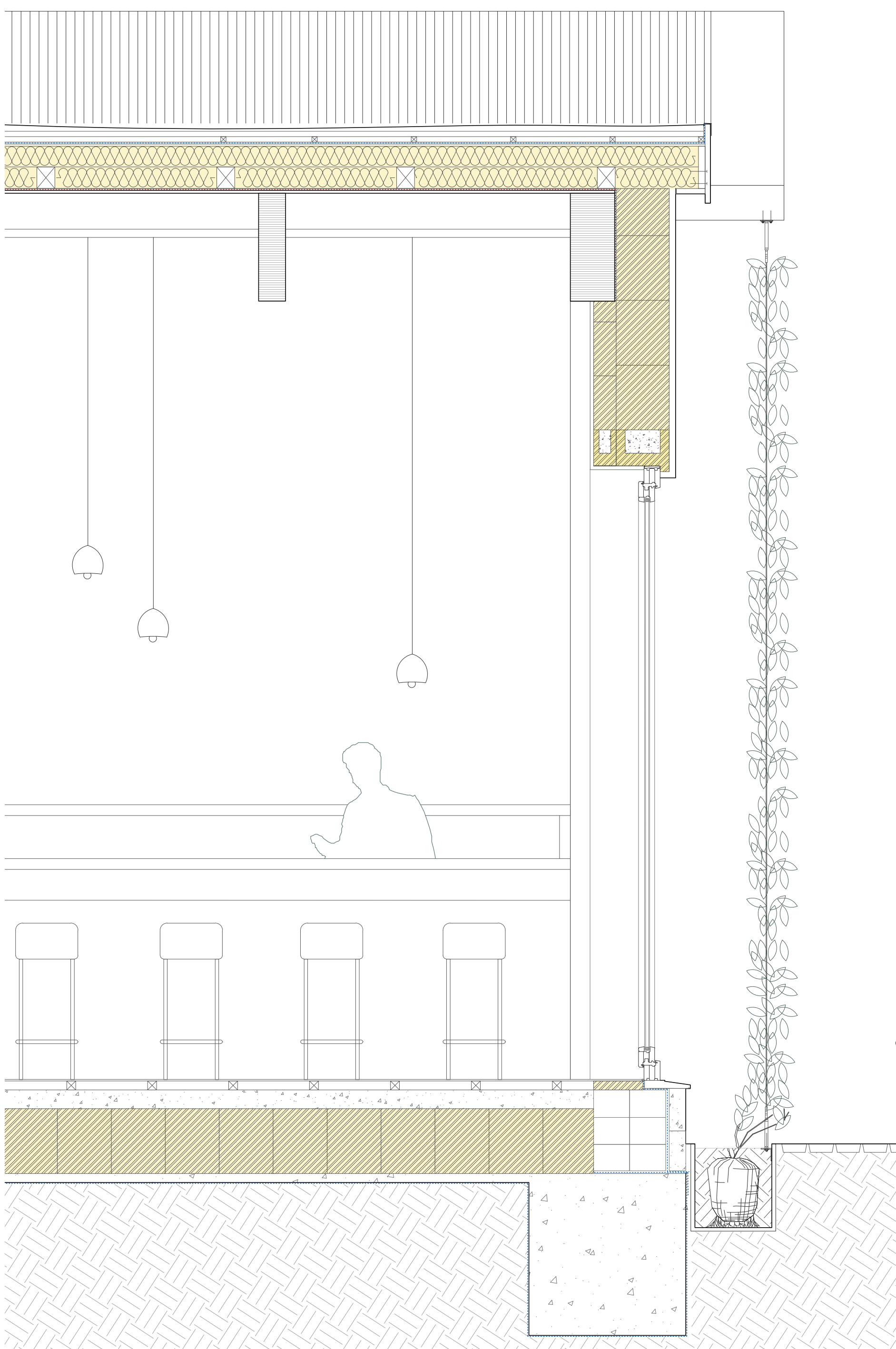
CURATING THROUGH TIME WITH NATURE

The project evolves with time to follow the rhythm of the nature and to remind the refill time of natural resources.

The construction materials are gathered from agricultural lands of the site and transformed. The build area is composed of 4 modules with same floor area and structural disposition that would be constructed with time. The modules are built with the participation of inhabitants and visitors to create awareness, encourage self-construction and to offer trainings.

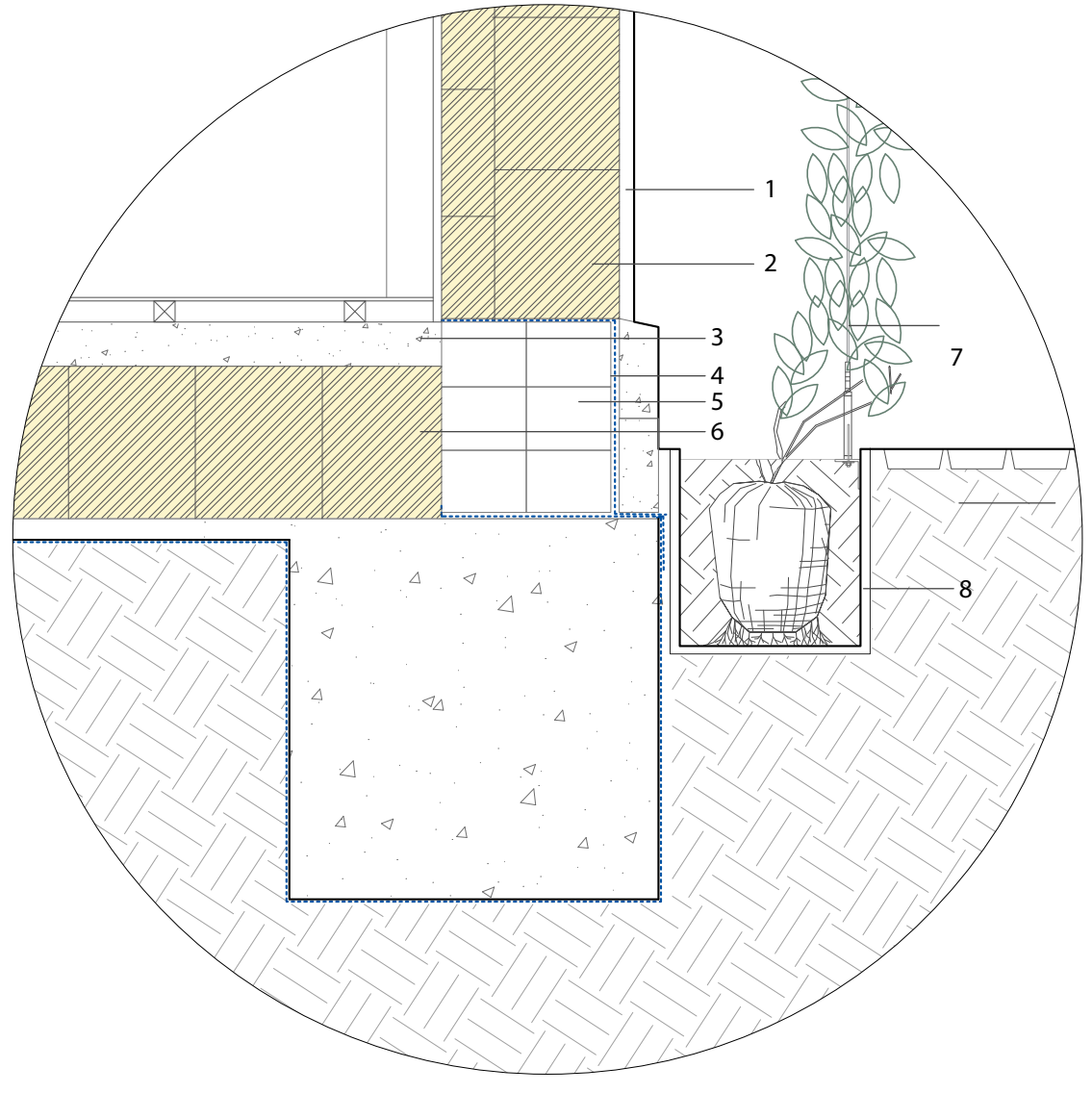
The agricultural lands are organized and managed by following agro-ecological principles to ensure the sustainability of soil and production. The fertile soils are protected and used in 3 different manners: productive soils, wild soil and gardens to maximize the biodiversity. The rainwater is collected by the water bassins to be used for agricultural activities. The agricultural runoff is also collected to return into water basins to reduce water consumption.





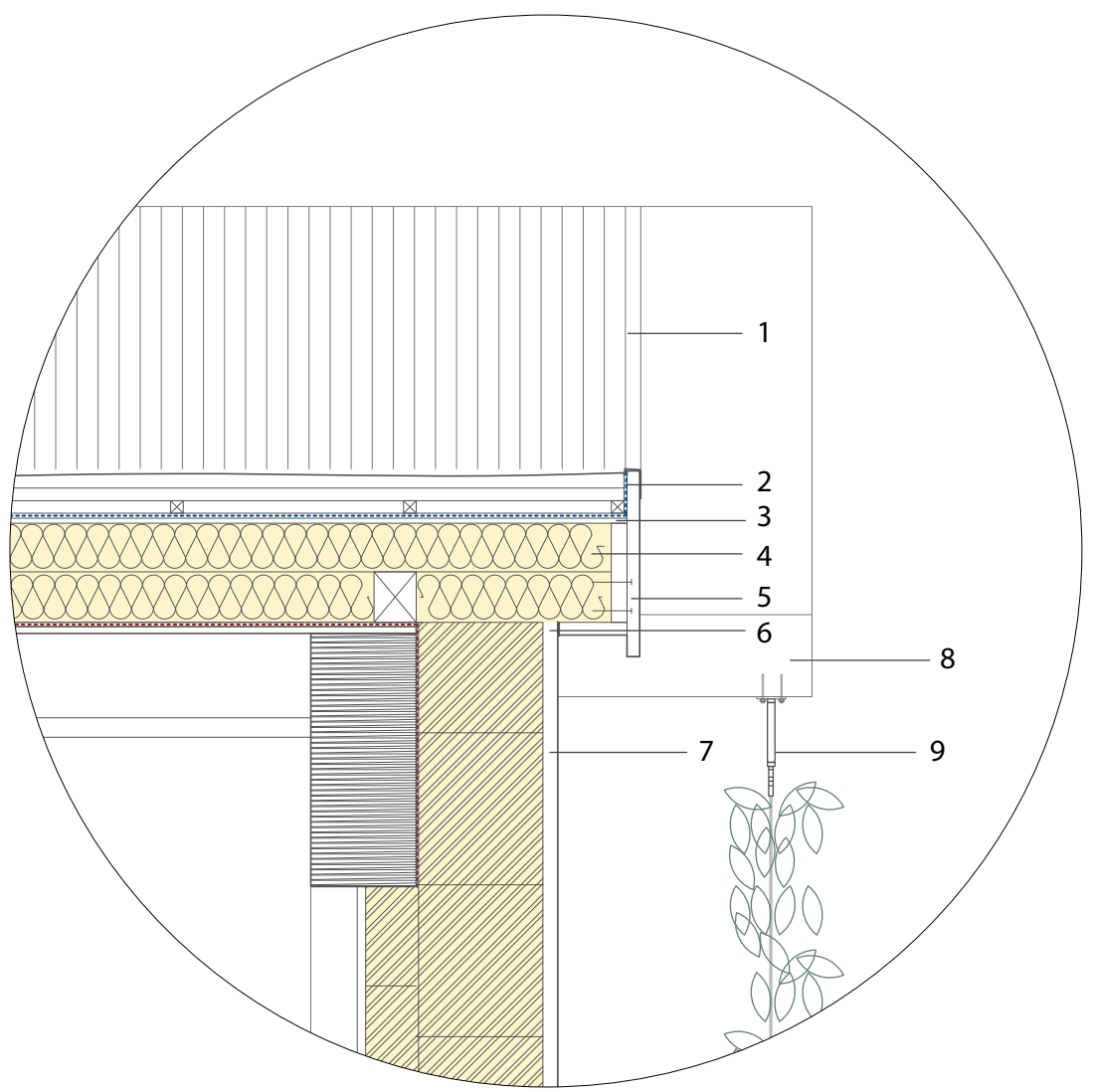
1. Vertical Timber Shading 5 cm
2. Timber Battens 3 cm
3. Lime Coating 3 cm
4. Strawbale Insulation filled between timber frame 46 cm
5. Earth Render 4 cm
6. Concrete Bedrock
7. Waterproofing
8. Aerated Concrete 2x20 cm
9. Isohemp Insulation 36 cm
10. Concrete Foundation

Foundation Detail (Strawbale)



1. Lime Render 3 cm
2. Isohemp Blocks (30cm + 12cm)
3. Levelling Screed
4. Waterproofing
5. Aerated Concrete Block 2 x 20 cm
6. Isohemp insulation 36 cm
7. Flax Fiber Rope for climber plants
8. Adobe Pot

Foundation Detail (Isohemp)



1. Thatch Cladding
2. Waterproofing
3. Woodfiber board
4. Gramitherm Insulation (2 x 14)
5. Bargeboard
6. Airtight membrane within the lime plaster
7. Lime Plaster 3 cm
8. Timber beam
9. Tensor for climbing plants

Roof Detail