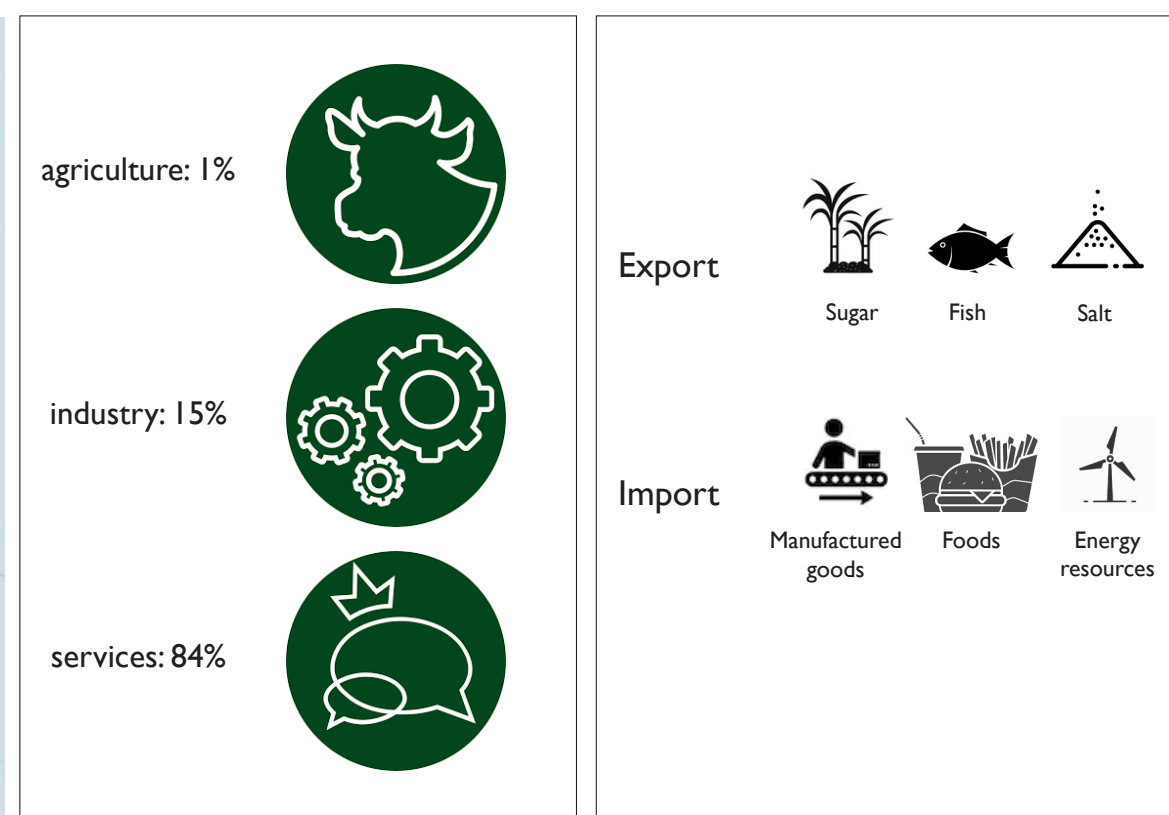


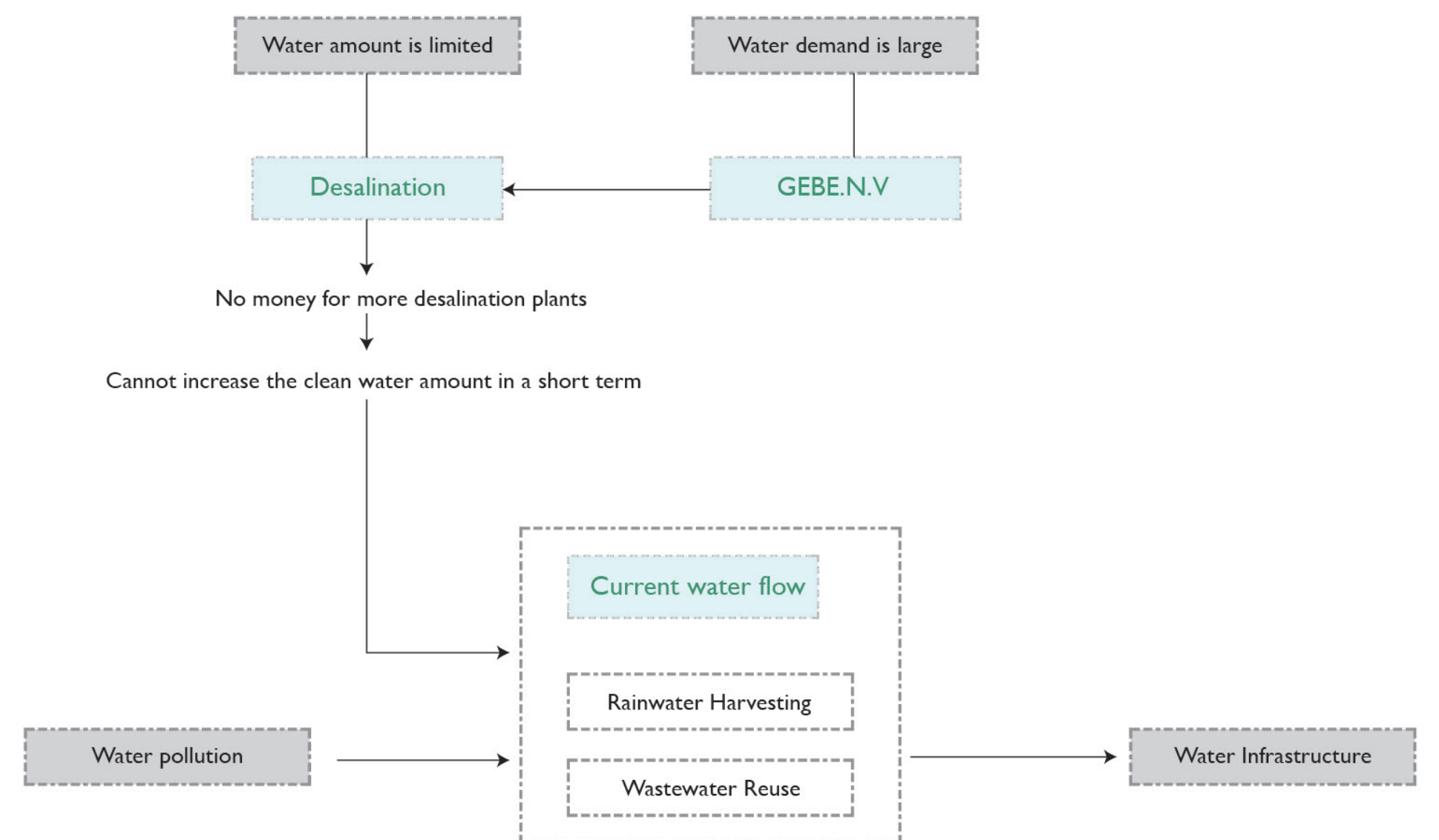


The Birdview Of The Project

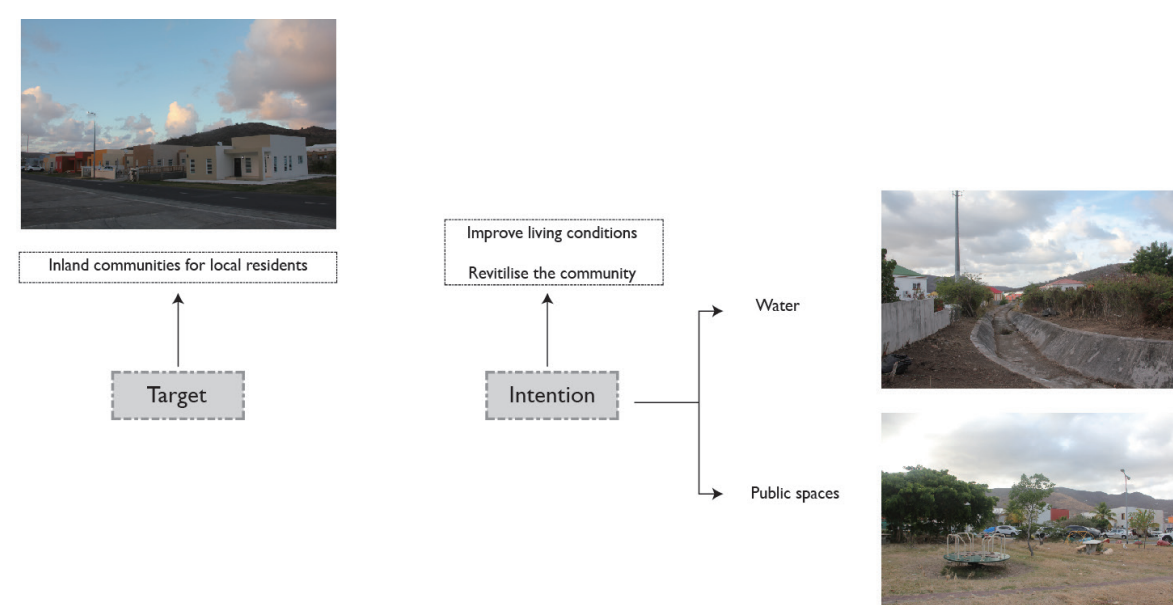
01 Decentralized Water Management System In Sint Maarten



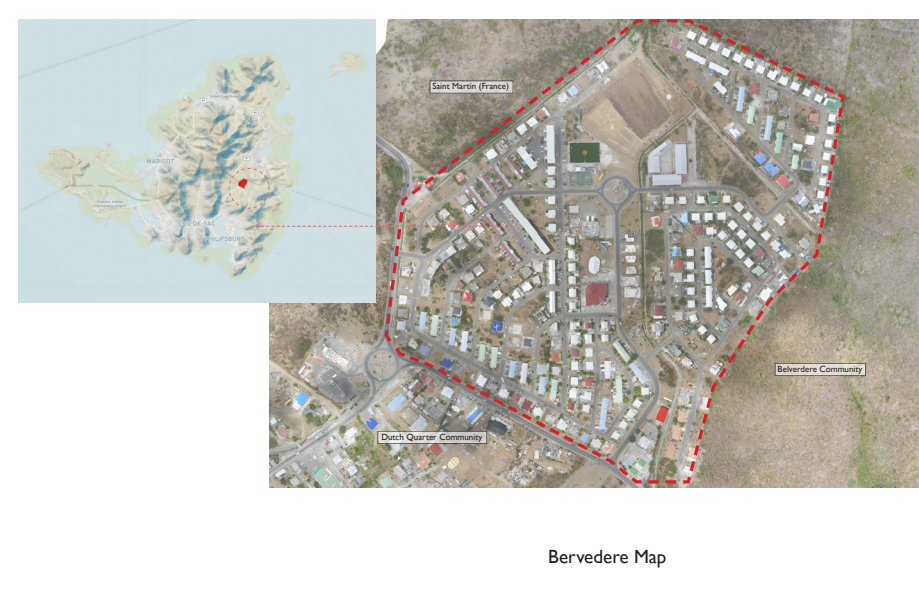
A Tiny Island



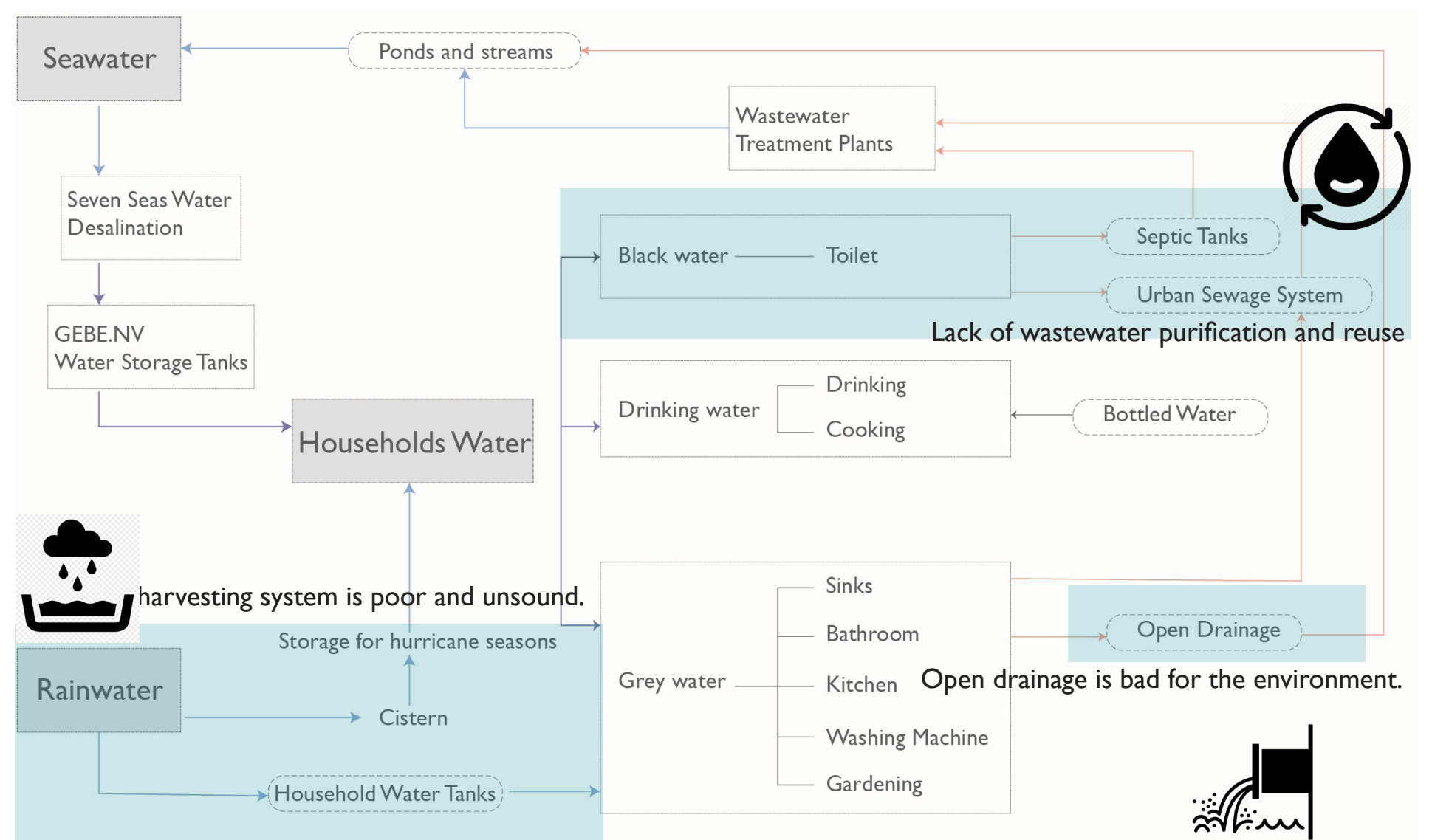
Water Issues



Focus Point



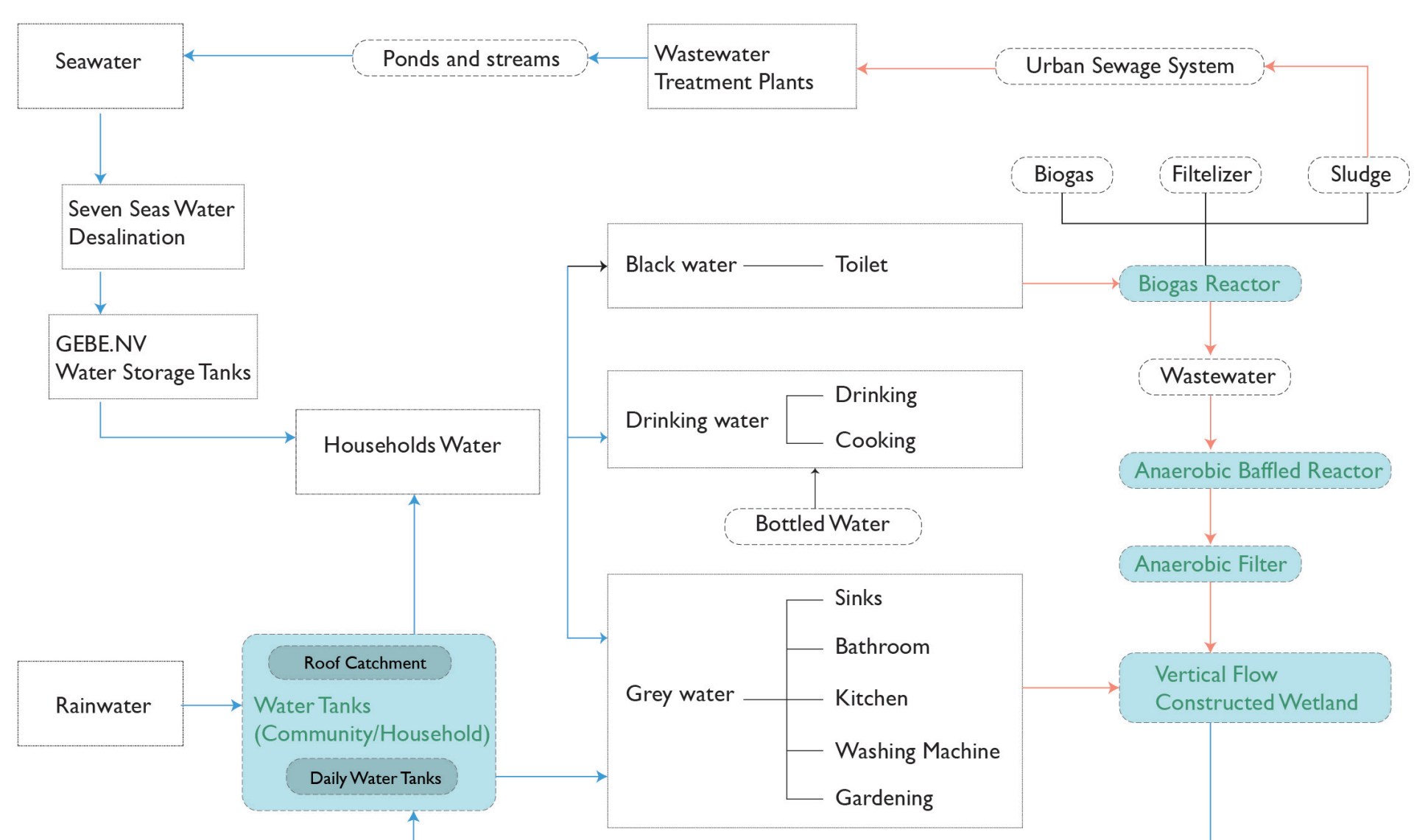
Design Pilot



Problems in the current water flow



Social Issue



Improved water flow

Installing the system in clusters as a basic unit to collect rainwater and reuse wastewater



Close water loop Improve water quality Save water resource

Water Environment

Create a healthy ecosystem in which people, animals and plants coexist.



Fauna Flora

Ecology Environment

Decentralized Water Management System

Production Environment

Food Production Energy Production Profit Production



Crop production provides food and handicraft raw materials



Biogas production for daily cooking



Earn more money for a better living standard

Understanding the link of water cycle and production cycle. Potential and opportunities of economical functions.

Public-Living Environment

Comprehensive public buildings



Provide a better and complete community service

Public spaces and Public green

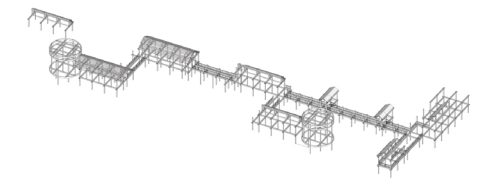


Reactivate the public areas and reconnect with the residence

Give the original wastelands a certain function when the system is combined, making them more valuable.

Design Ambition

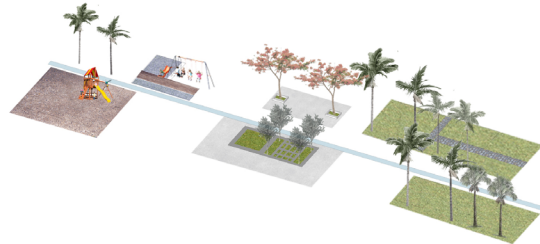
Building Structure



Public-Living Ambition

Improve public space and activities

Landscape



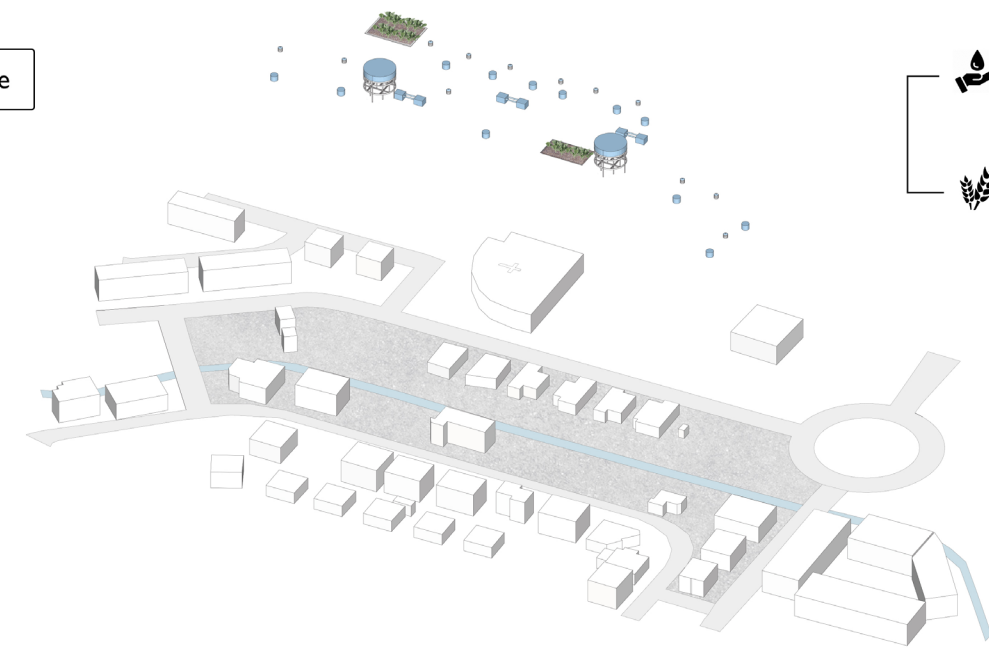
Ecology Ambition

Trees plantation

Public-Living Ambition

Improve public green

Water Infrastructure



Water Ambition

Improve water environment

Production Ambition

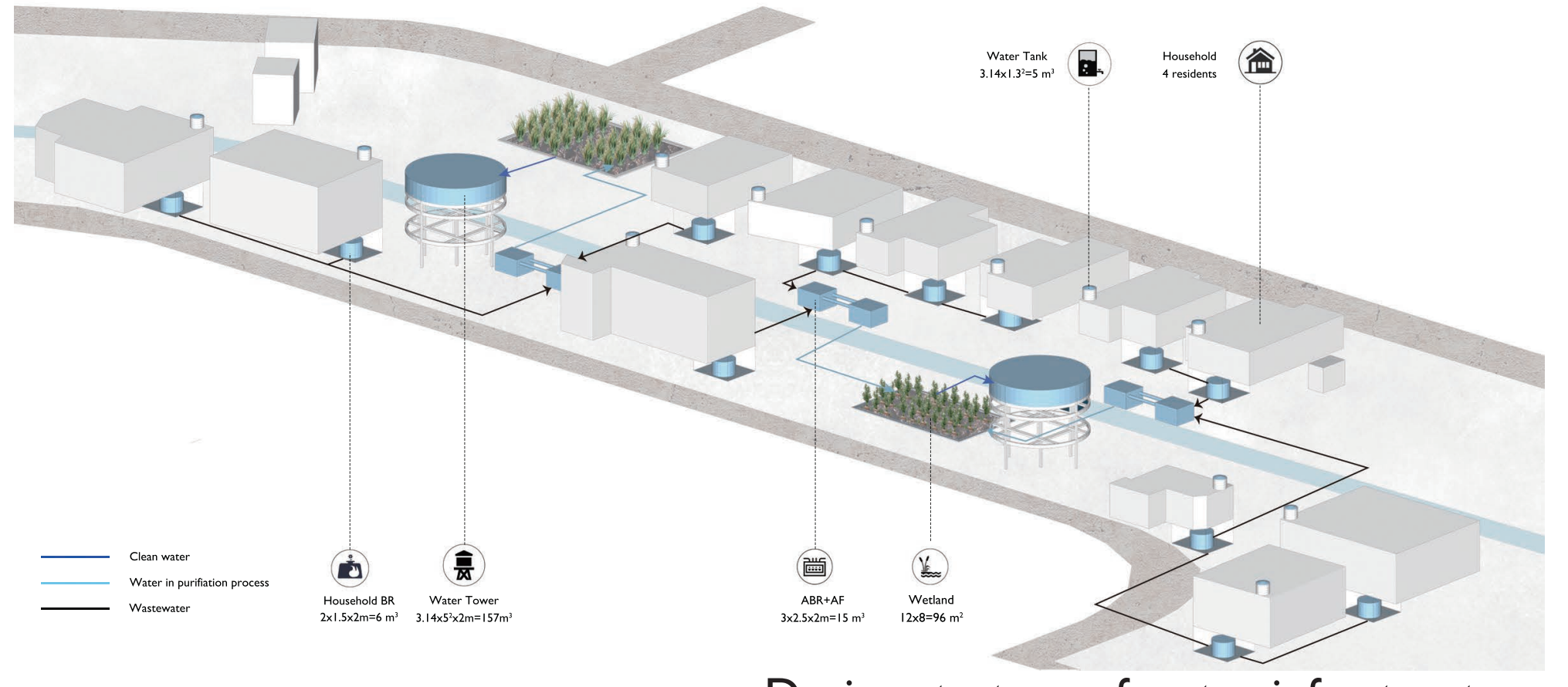
Wetlands plant food and materials

13 Households

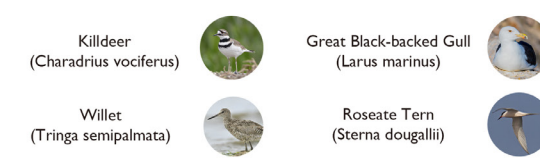
About 50 persons

Design Elements

Decentralized Water Management System In Sint Maarten 02



Design strategy of water infrastructure



Type 2 Square

Conocarpus erecta (button weed)

Flamboyant tree

Porous turf

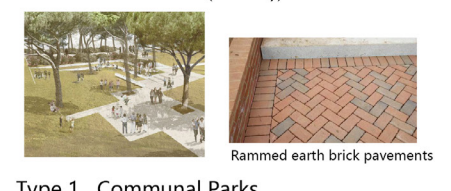
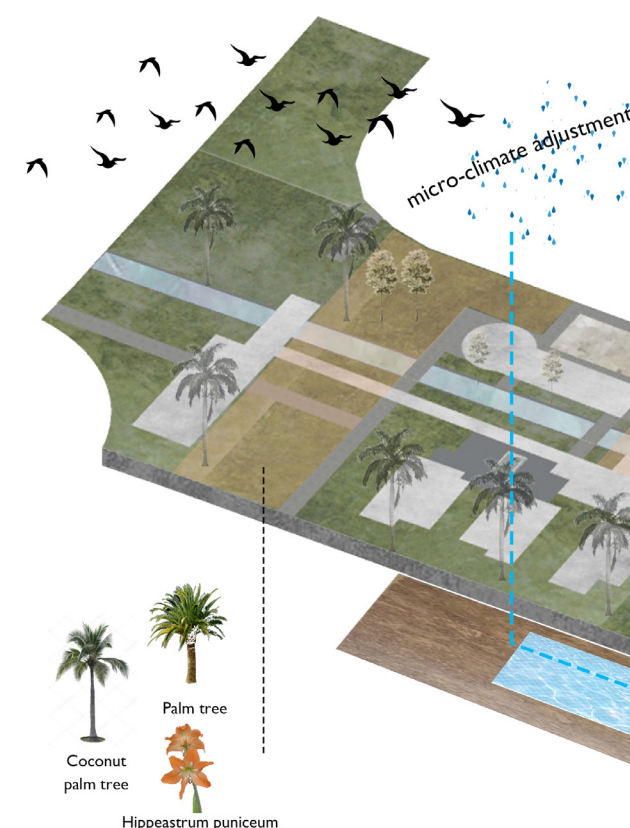
Type 3 Playground

Bound recycled glass porous pavement

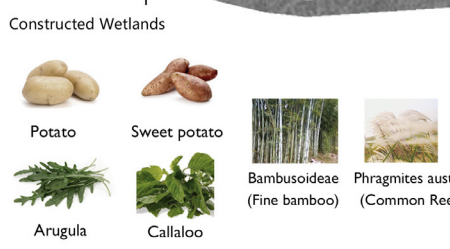
Isa pseudocaracas

Coconut palm tree

Palm tree



Type 1 Communal Parks



Design strategy of landscape



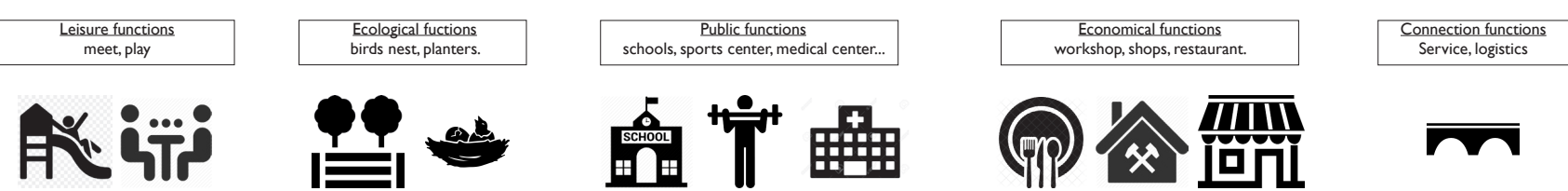
Site Plan 1:500

Water infrastructure



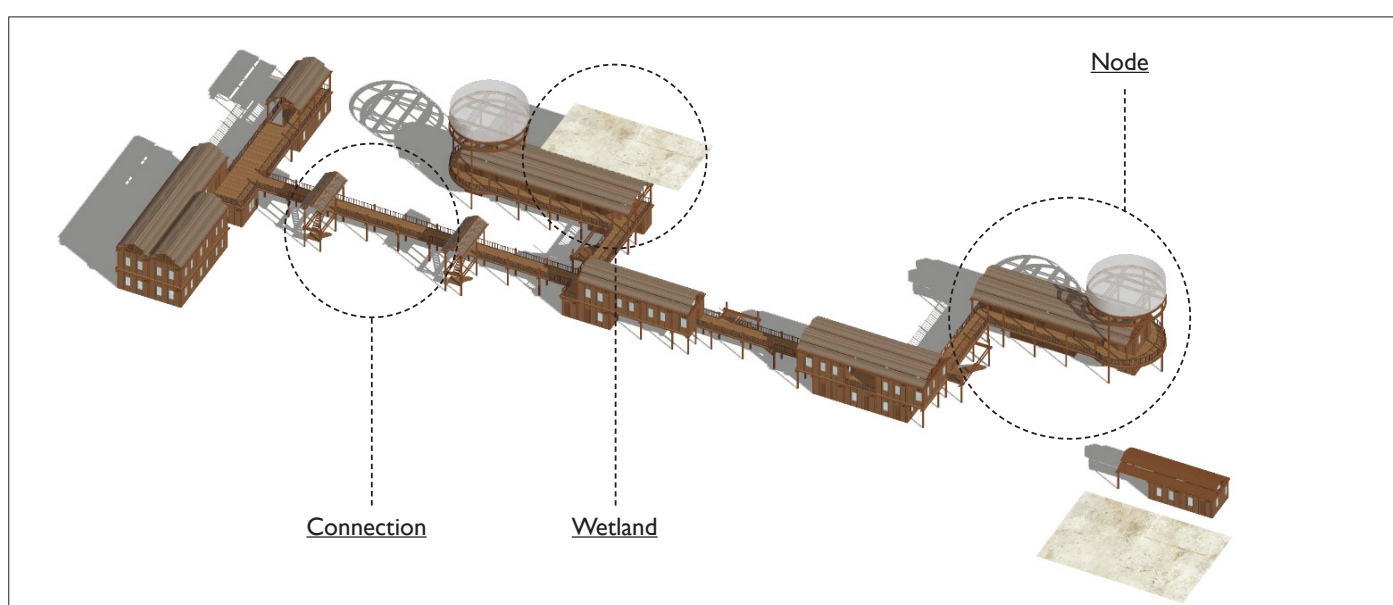
+

Spatial functions



II

Three Types

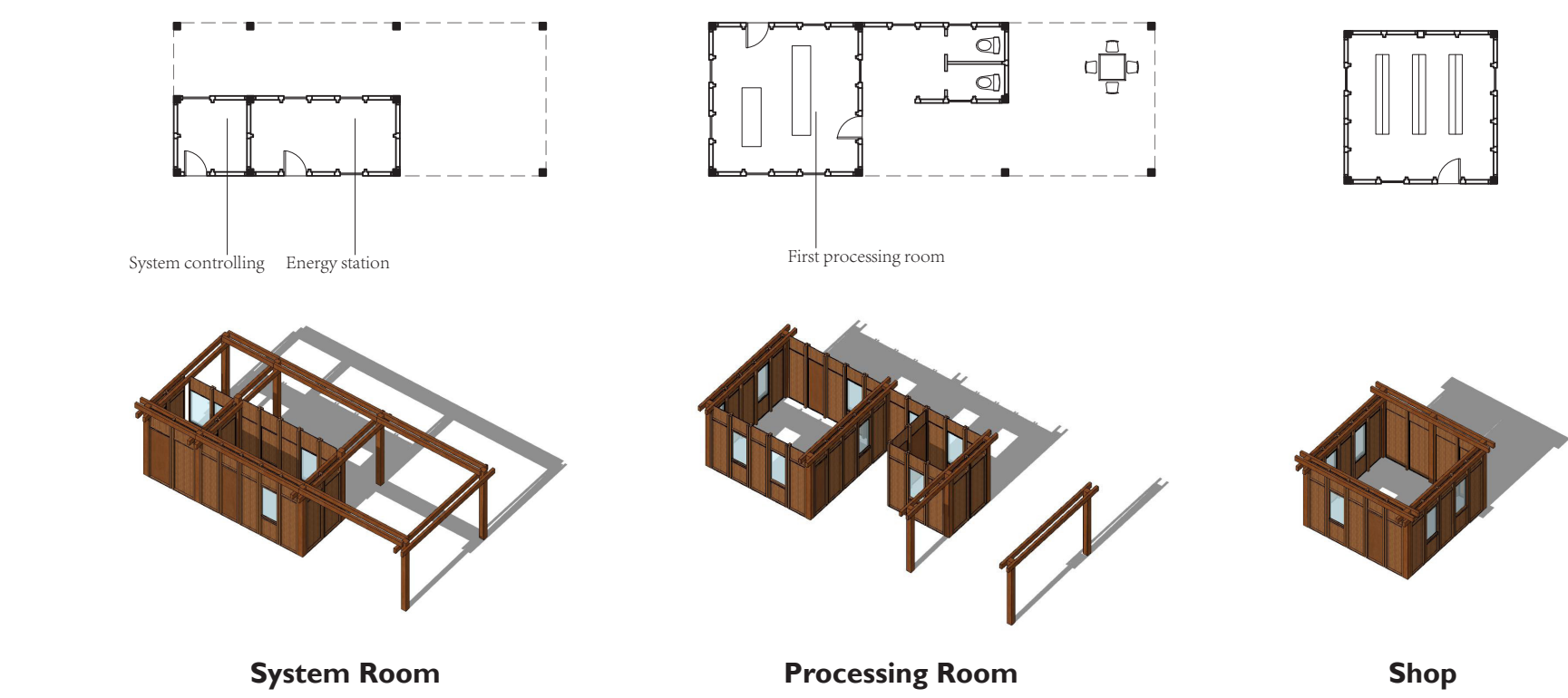


Design strategy of building structure

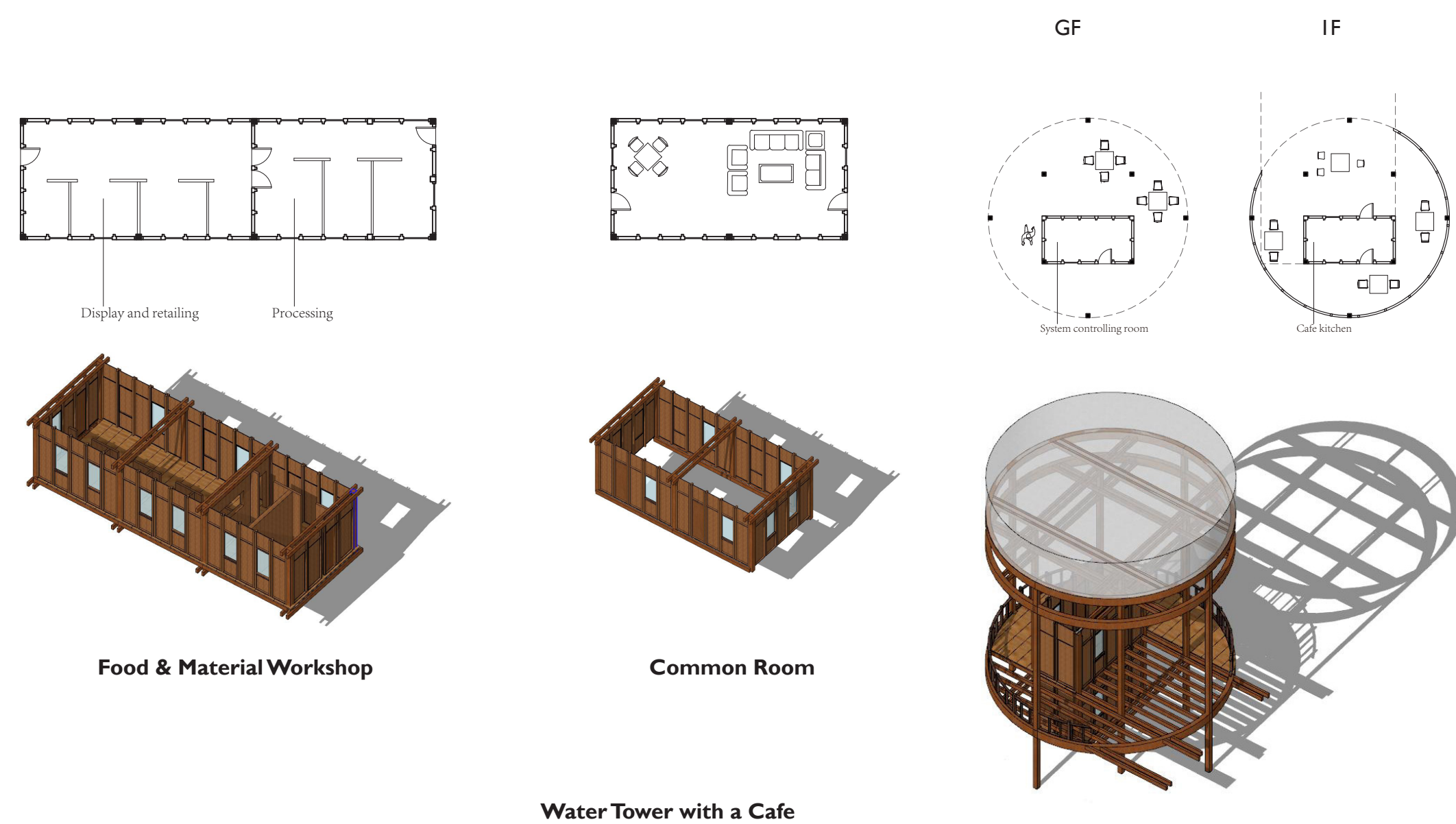
03 Decentralized Water Management System In Sint Maarten



Changing of a dry drainage

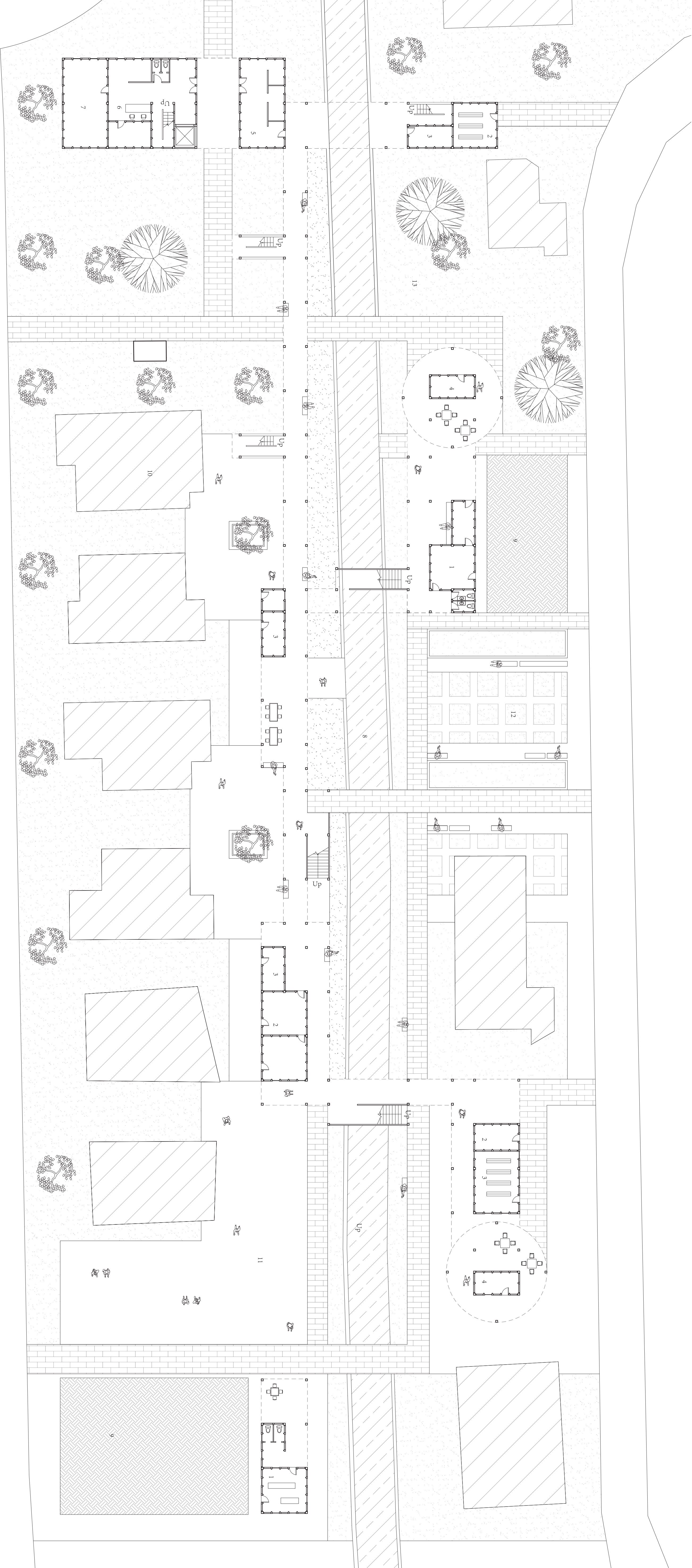


Changing of a water grassland

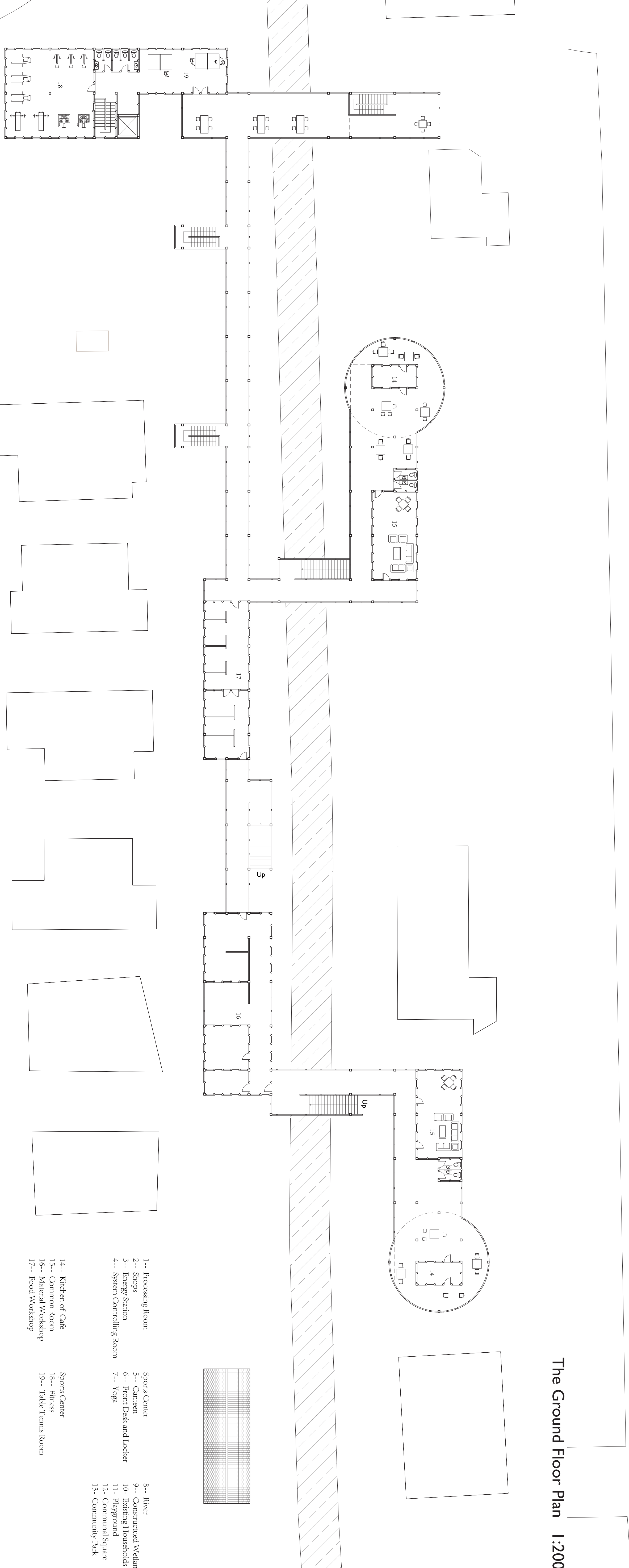


Changing of a street





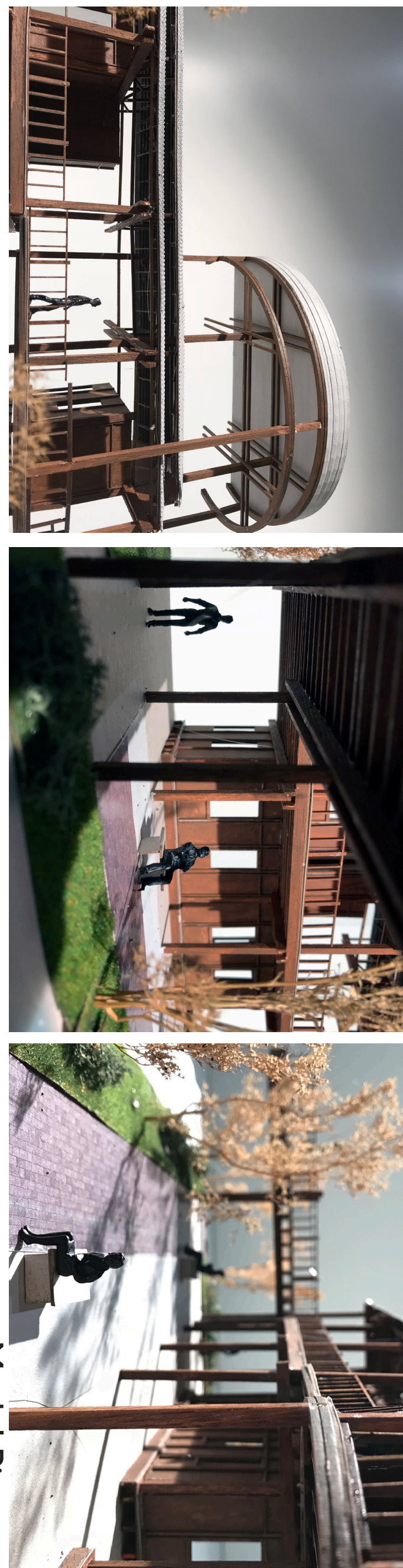
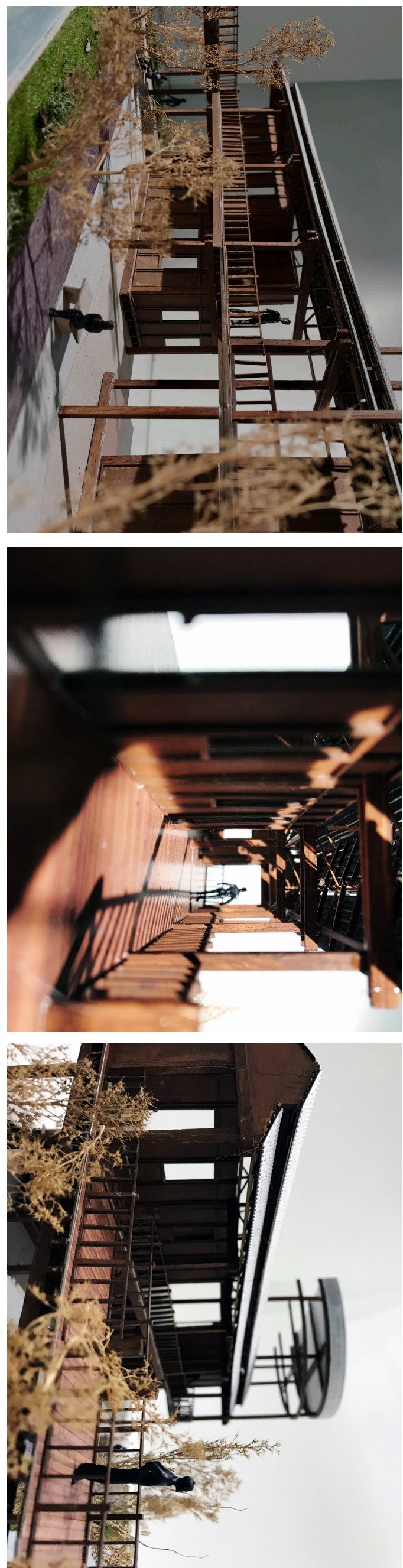
The Ground Floor Plan 1:200



The First Floor Plan 1:200



The Western Elevation 1:200



Model Pictures



View from the bridge



View from the sports center



View from the first floor (outdoor terrace)



View from the ground floor



The open outdoor walkway



The shaded walkway



View from the first floor (workshop)



The continuous view



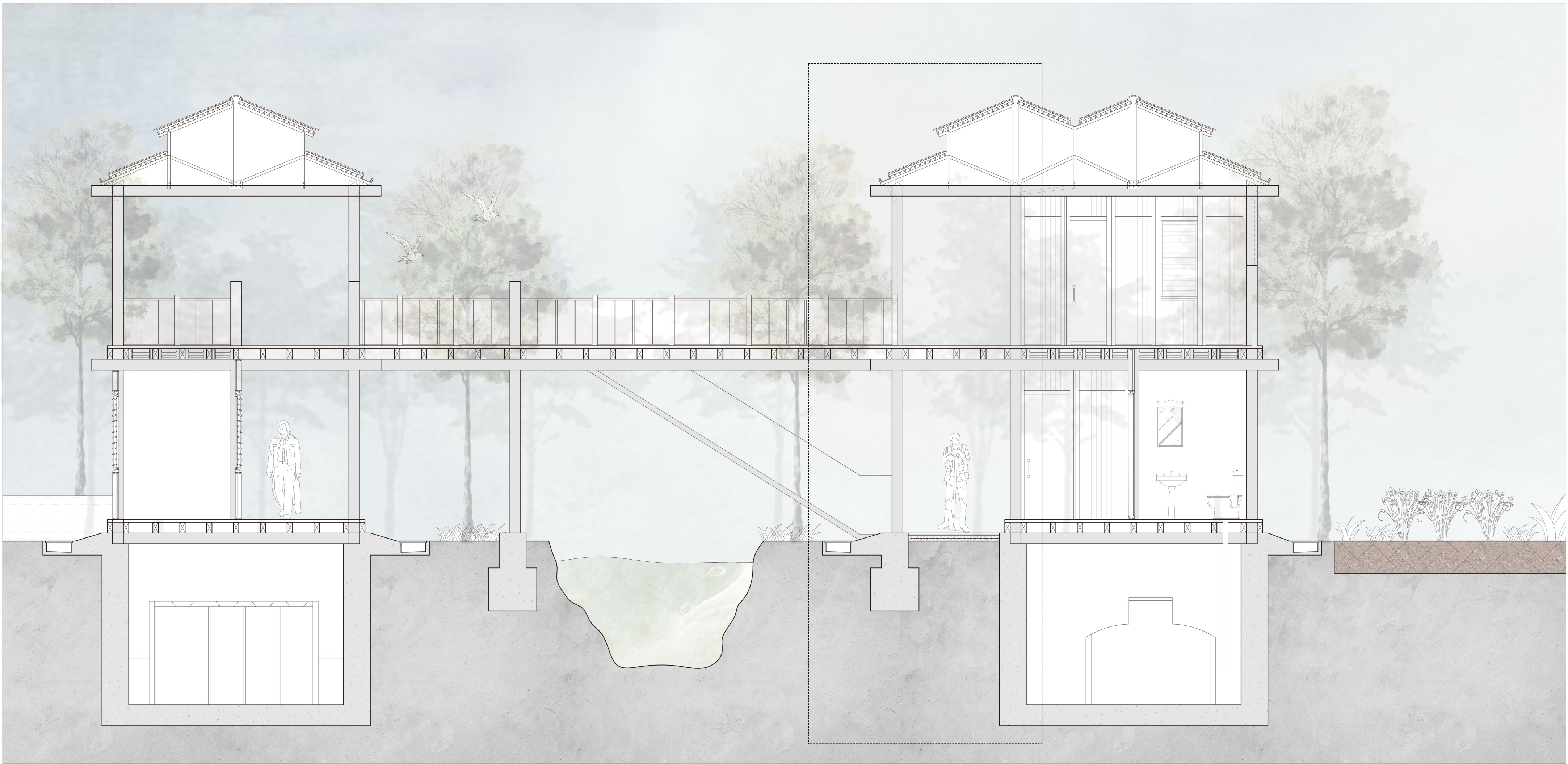
An open view from one side of the river



The shaded small square



Fragment Plan (The Ground Floor) 1:50



A-A Section 1:50

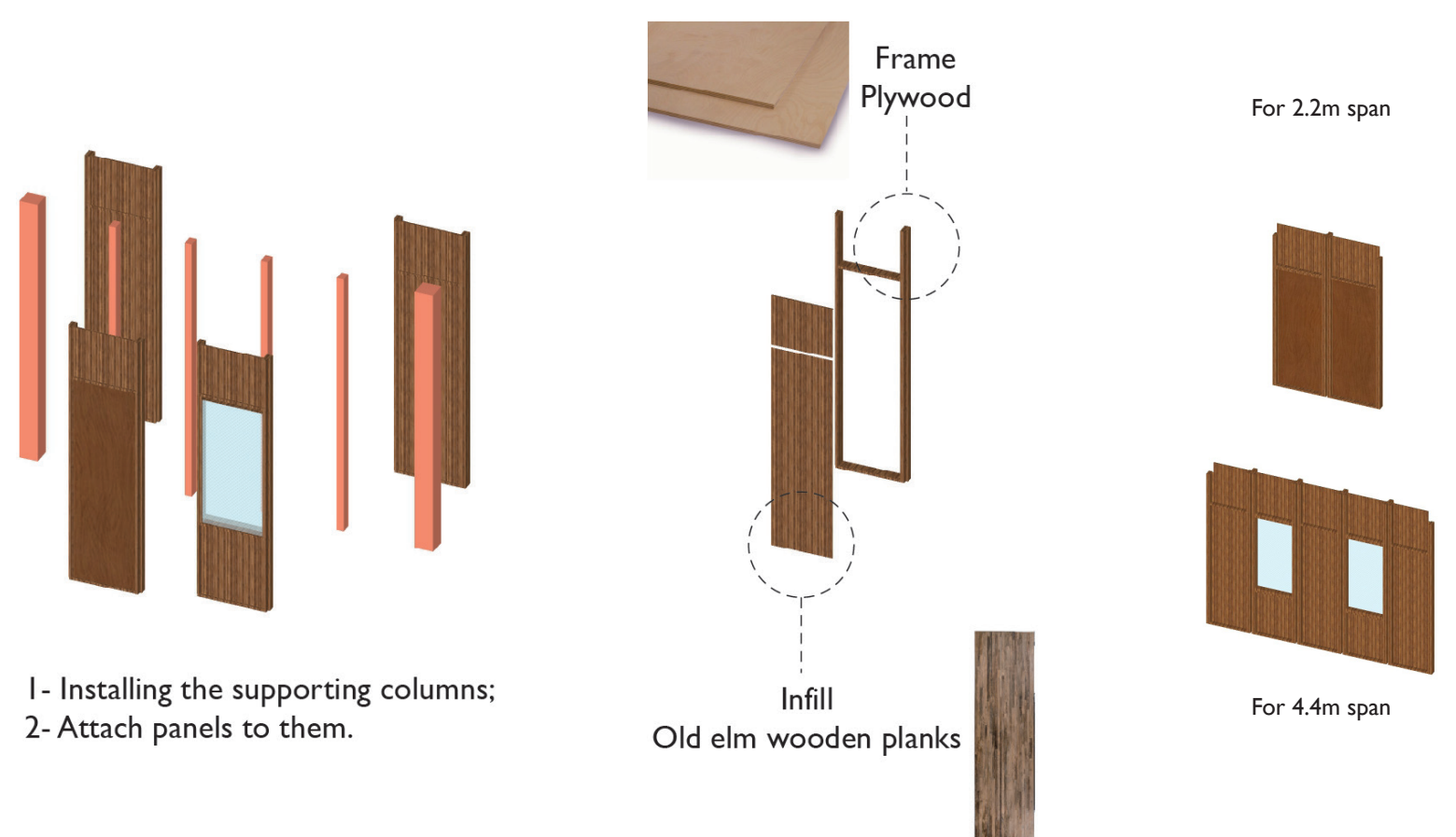
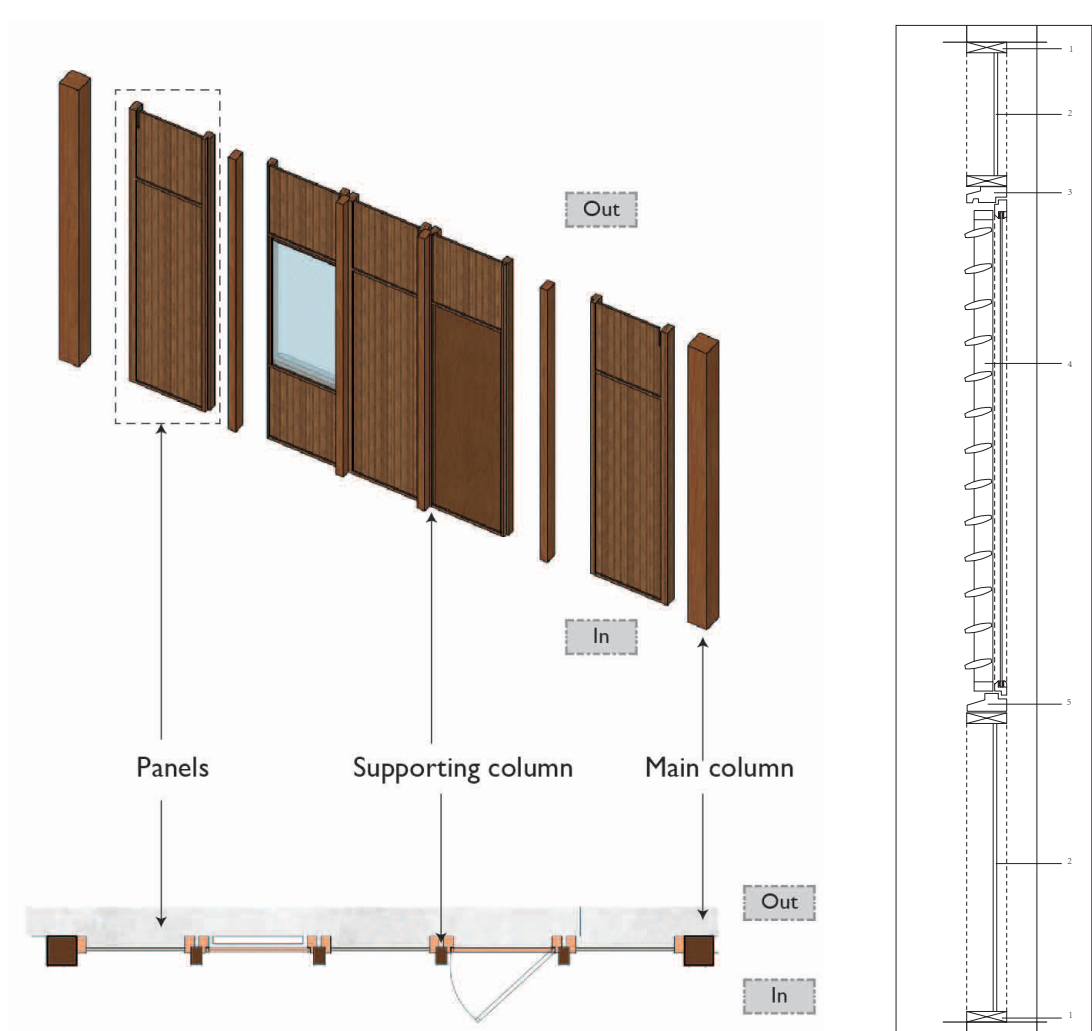


B-B Section 1:50

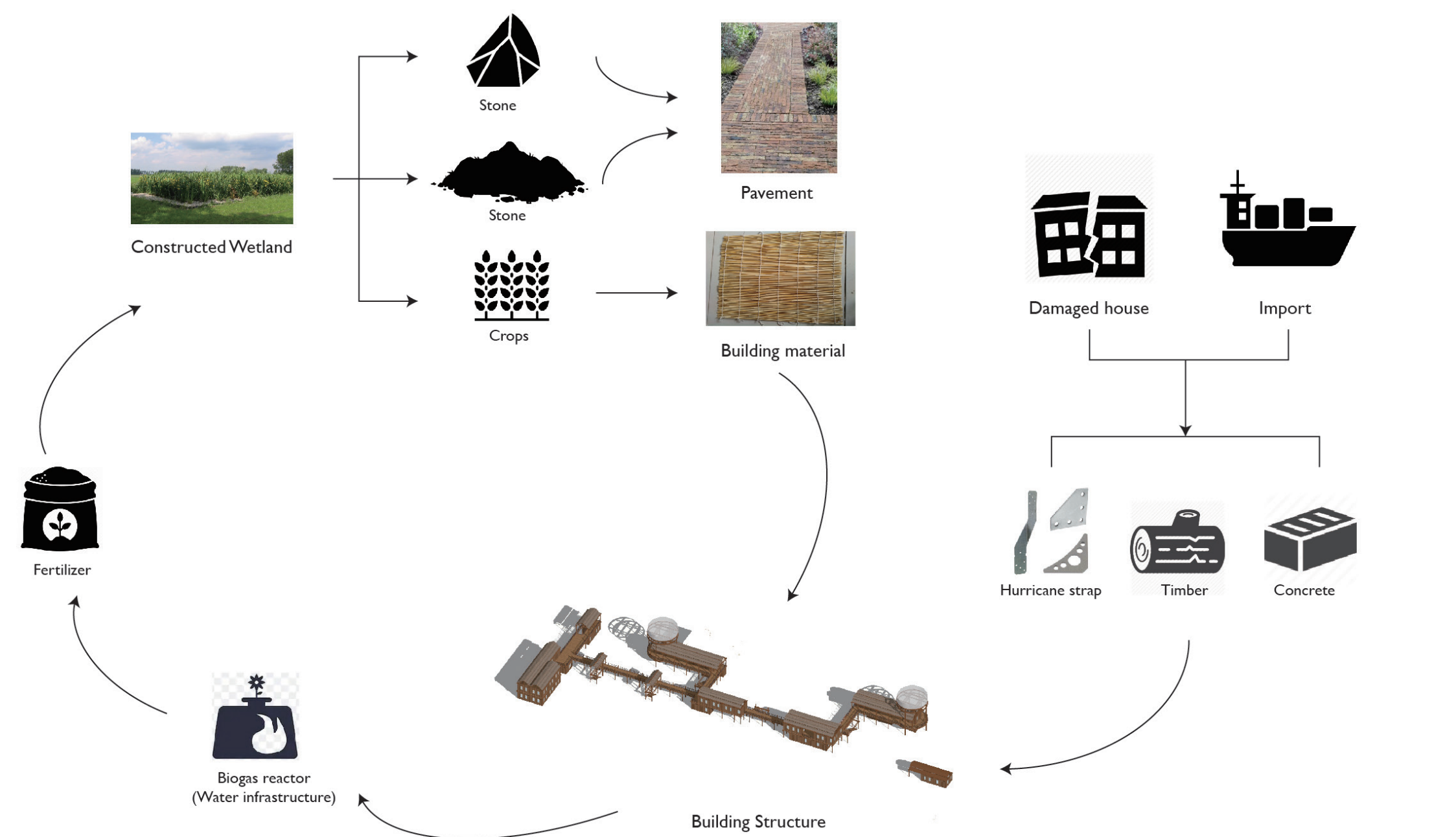


Elevation 1:50

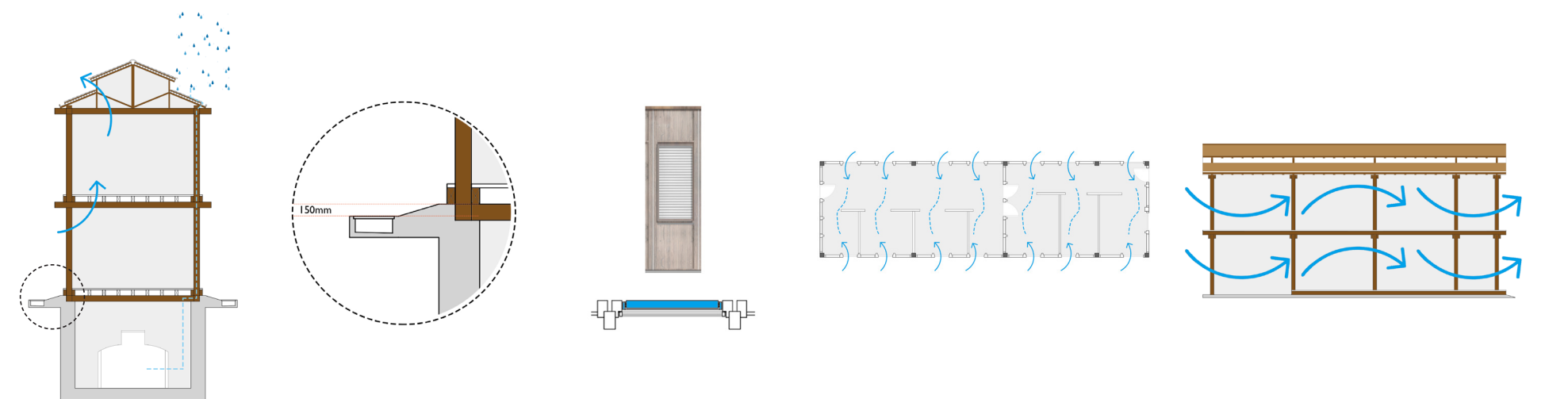
04 Decentralized Water Management System In Sint Maarten



Facade (Windows and doors)

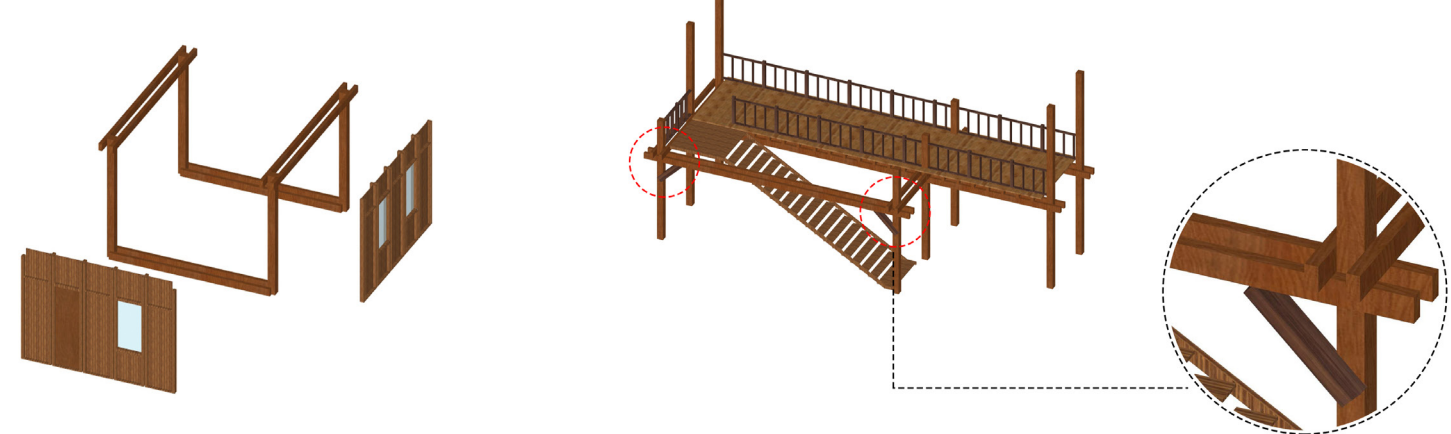


Material Strategy



Climate and Structure Strategy

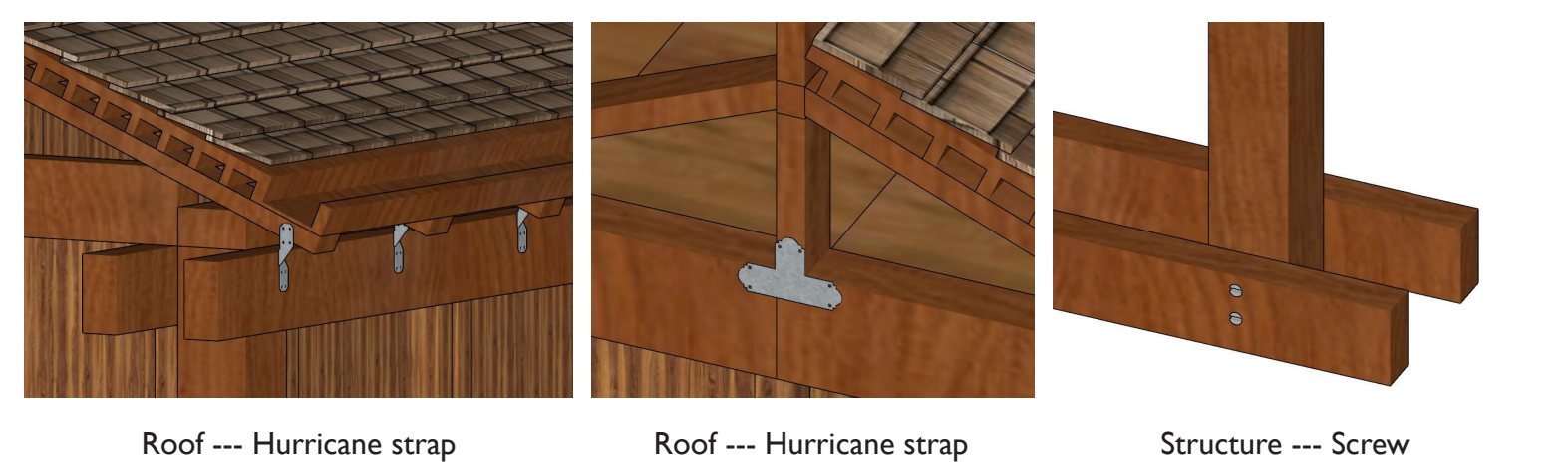
Bracing Method



Window panels as a bracing

An extra triangular bracing in stairs

Connection Method

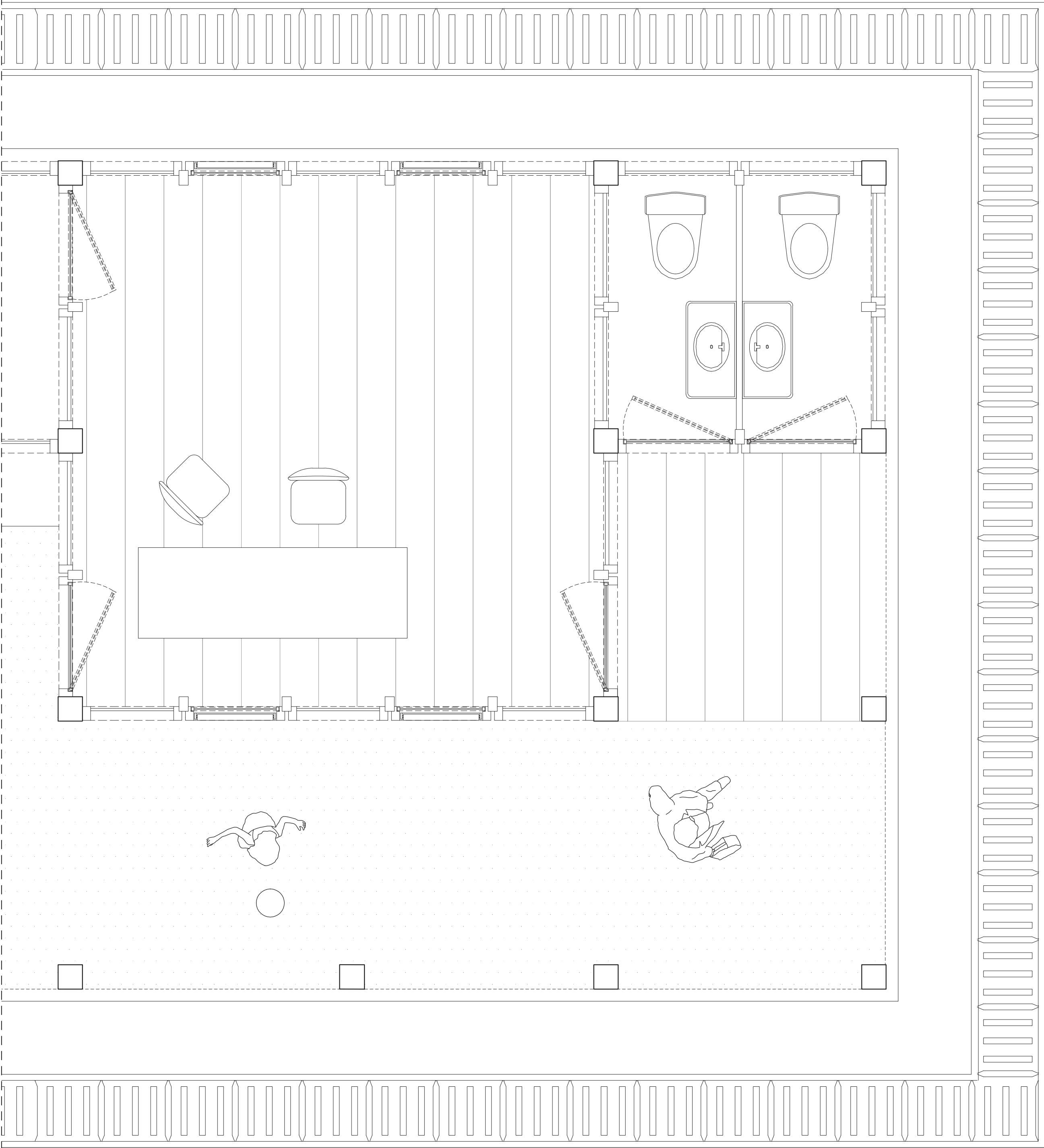


Roof --- Hurricane strap

Roof --- Hurricane strap

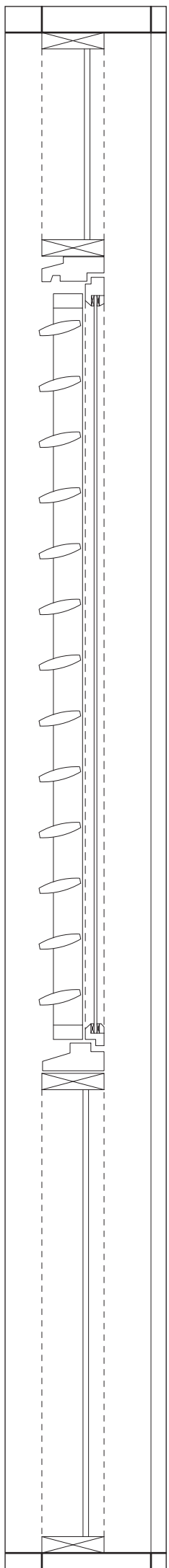
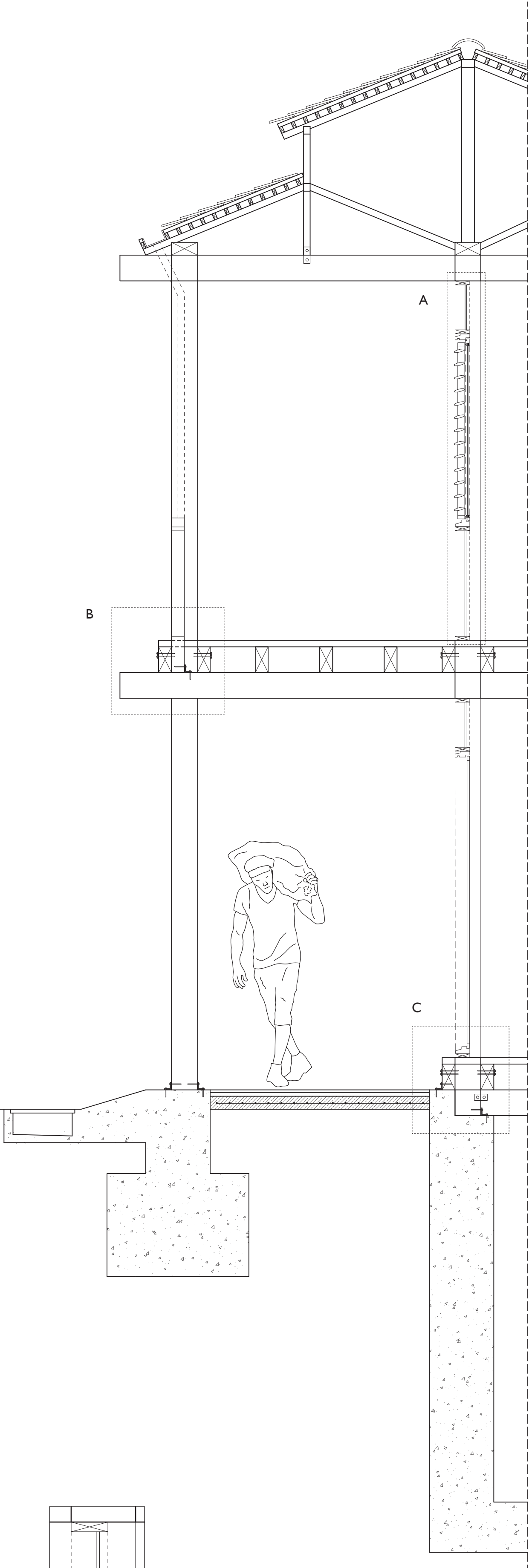
Structure --- Screw

External Facade 1:20

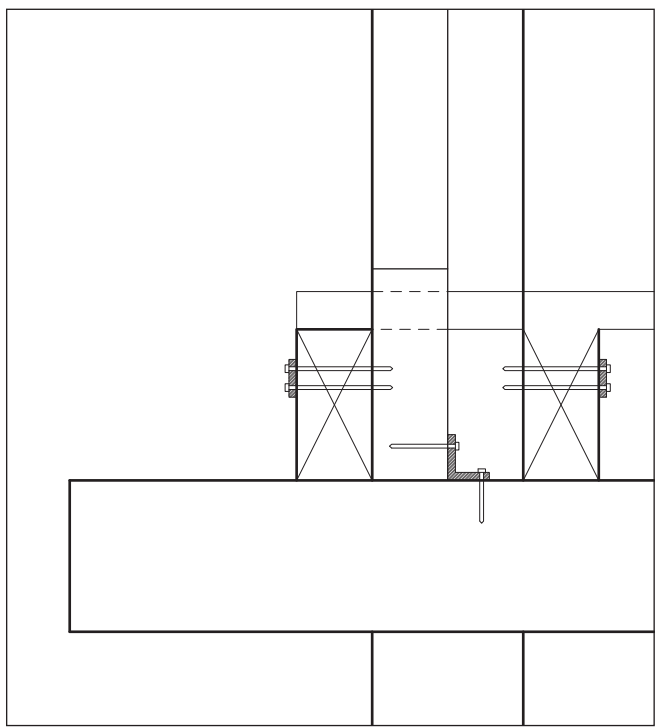


Horizontal Section 1:20

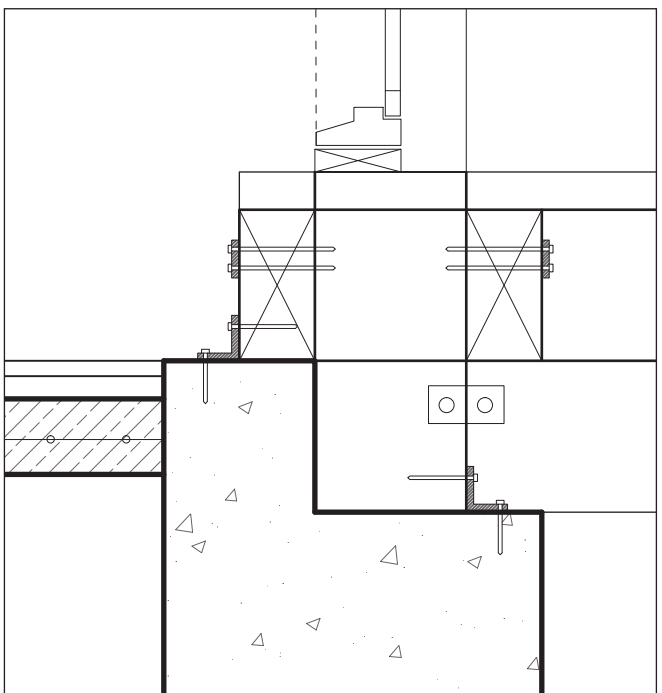
Vertical Section 1:20



Detail A 1:10



Detail B 1:10



Detail C 1:10