

**CONTEMPORARY ORCHARD COMMUNITIES:
A COUNTERPROPOSAL FOR BANG PRATHUN**

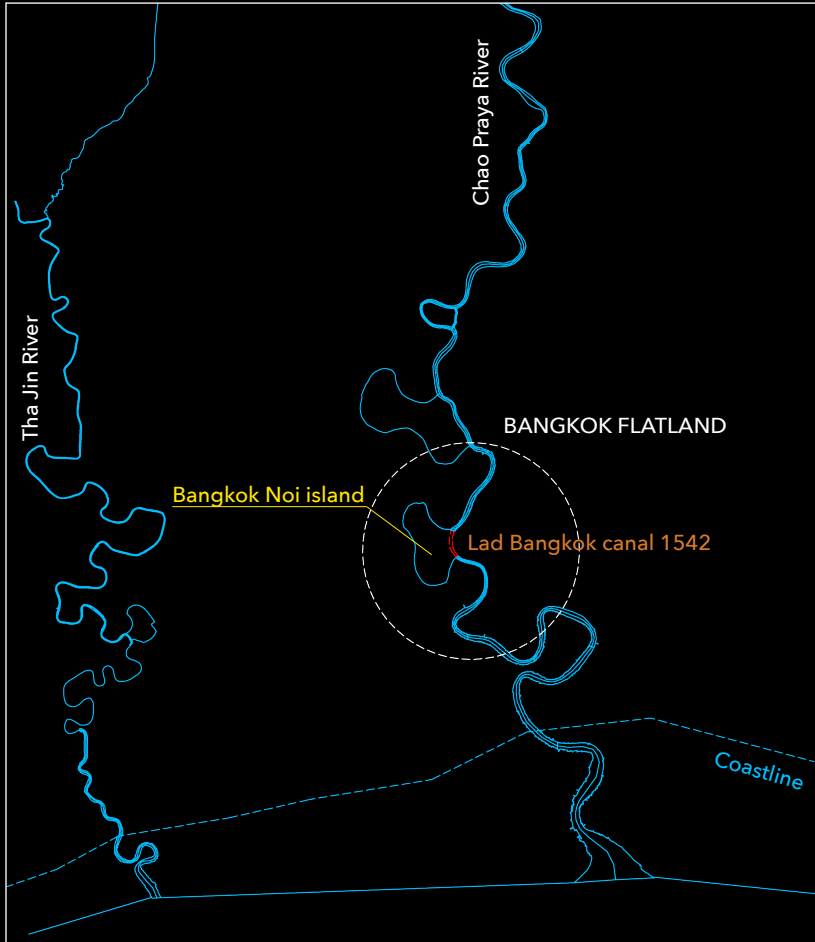
Diploma Spring 2019

Student: Prommanas Amatayakul
Supervisor: Namik Mackic

BACKGROUND



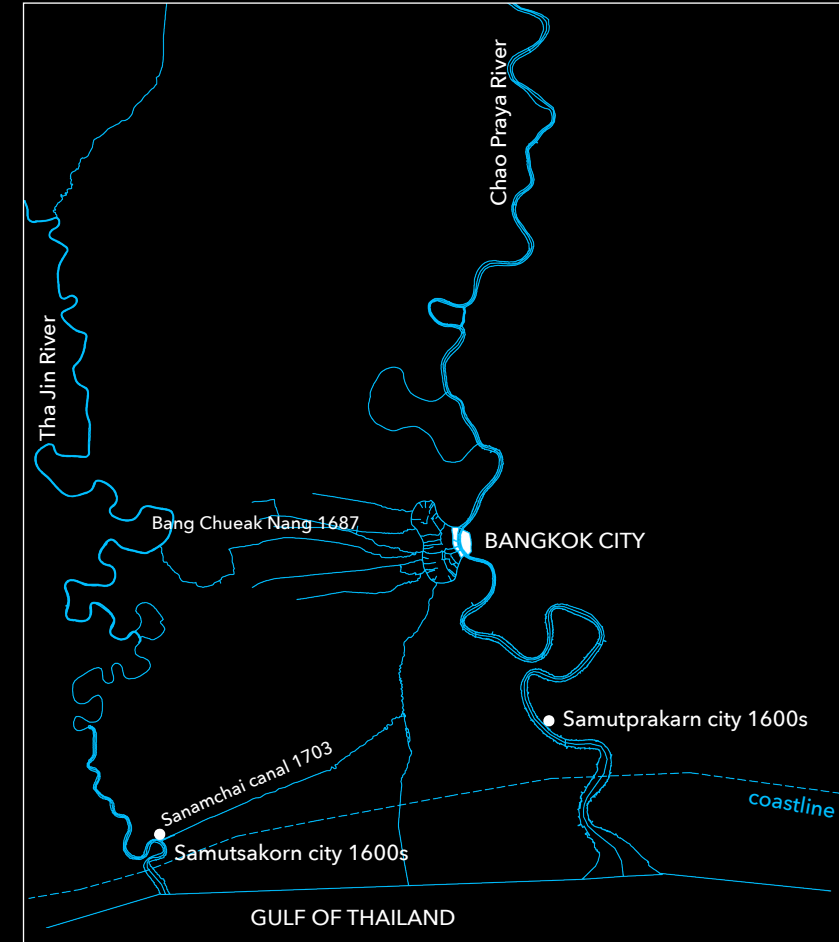
"YOK-RONG" THE CULTURAL LANDSCAPE OF BANGKOK
THE FRUIT ORCHARD OF BANG PRATHUN, BANGKOK, THAILAND



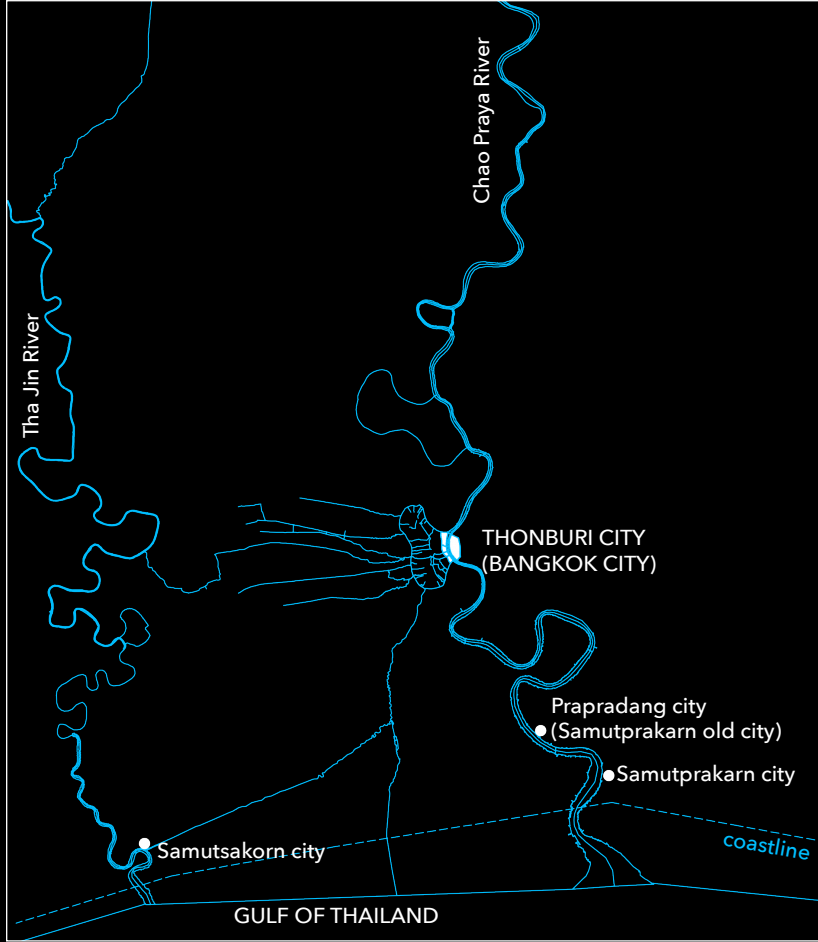
AYUTTHAYA PERIOD: BEFORE 1542



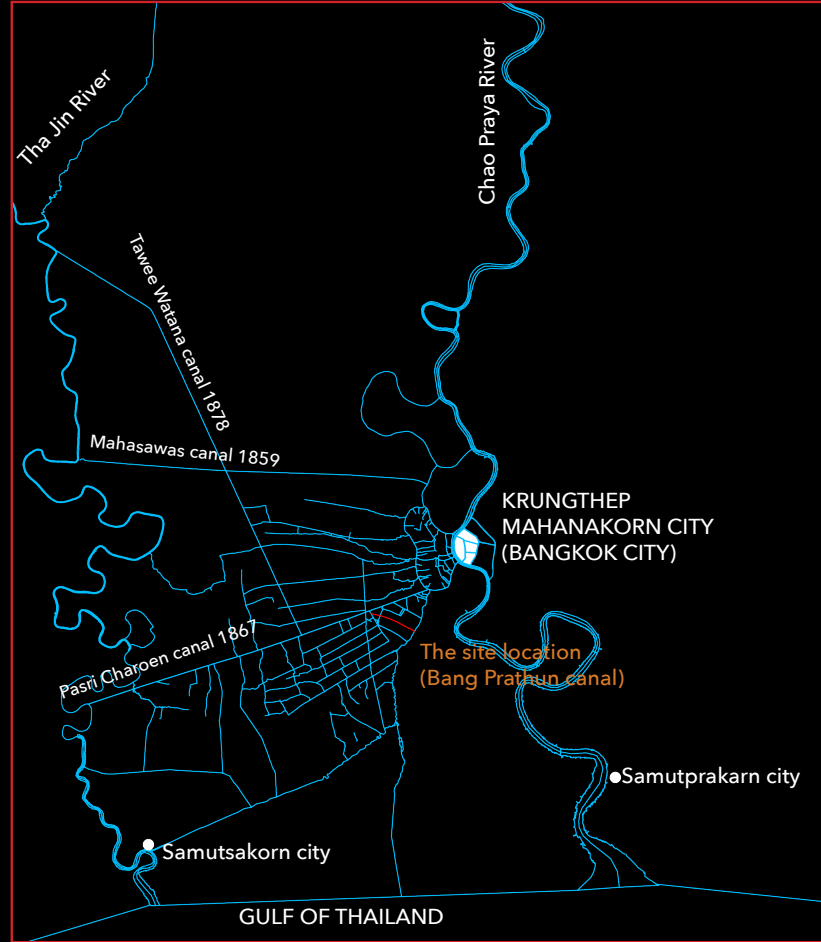
AYUTTHAYA PERIOD: 1542-1632



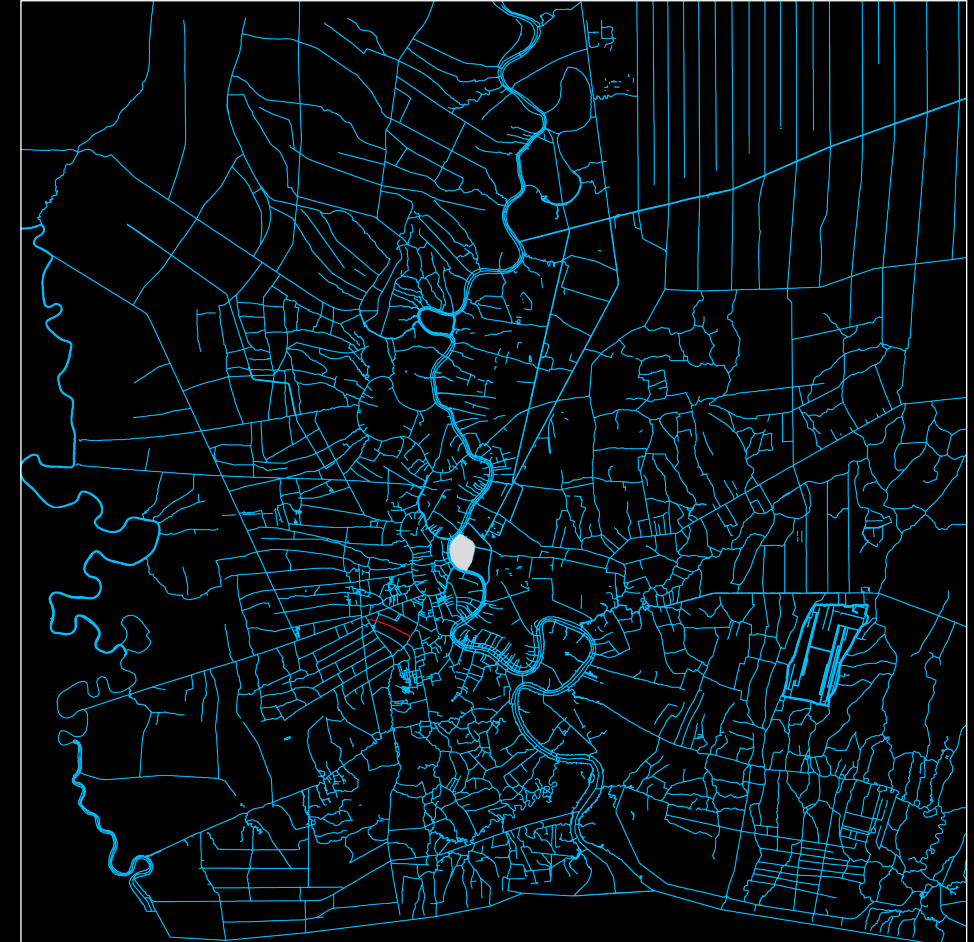
AYUTTHAYA PERIOD: 1632-1767



THONBURI PERIOD: 1767-1782



RATANAKOSIN PERIOD: 1782-1950



THE NETWORK OF KHLONGS (CANALS)
BANGKOK



Map of Bangkok in 1887 shows the pattern of hydro-agricultural landscape
Source: National Historical Archives of Bangkok

BANG PRATHUN, BANGKOK, THAILAND



1998



2008



2018

BANG PRATHUN, BANGKOK, THAILAND



1998



2008



2018



Nottingham Style 286 sq.m.
4 bedrooms 5 bathrooms



Coventry Style 267 sq.m.
4 bedrooms 4 bathrooms



Nice Style 225 sq.m.
4 bedrooms 3 bathrooms



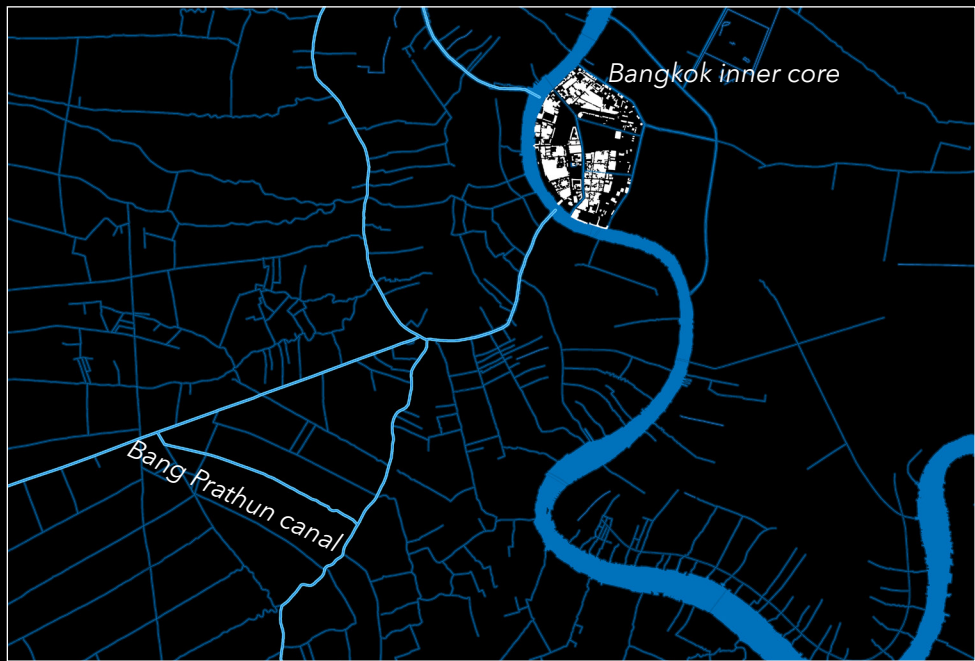
THE PROJECTED DEVELOPMENT IN 2020

The single housing development that was projected to build in 2020. It will be planned over the historical hydro-agricultural settlement and their cultural landscape of fruit orchard.

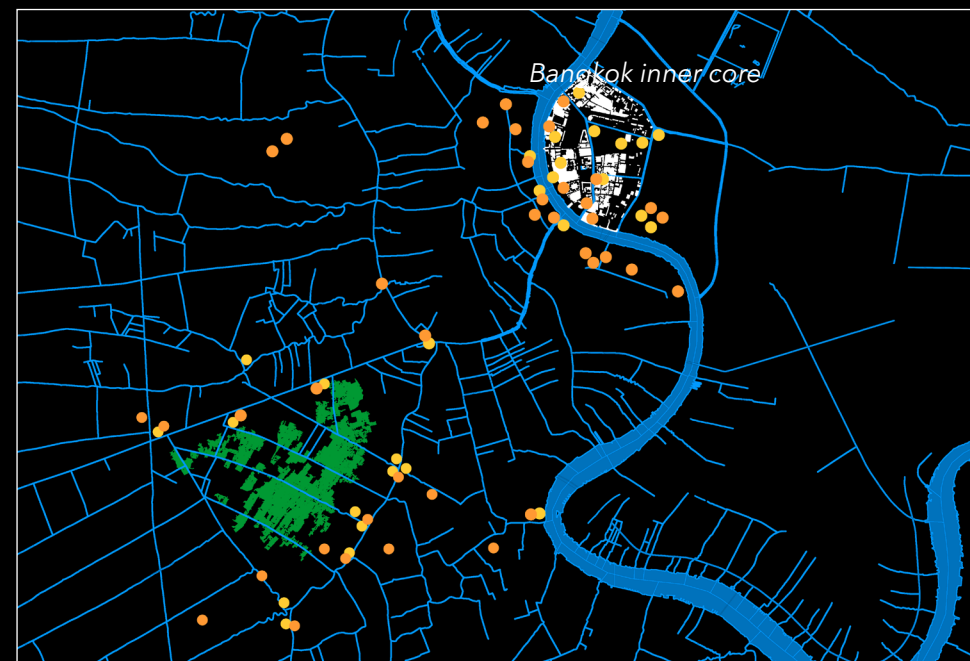
428 meters of Bang Prathun canal and other minor canals are affected. More than 400,000 sqm. of agricultural area will be deforested. The historical and cultural areas, such as temples and meeting places, are cut off from the resident district.

Developer:	Golden Land Property Development
Location:	Bangkok, Thailand
Area:	424,495 sq.m.
Housing type:	Single housing 225-286 sq.m. 4 bedrooms 3-5 bathroom
House's prices:	8-16 M.THB (2-4 M.NOK)
Number of units:	700-800 units

Source: Golden land property development

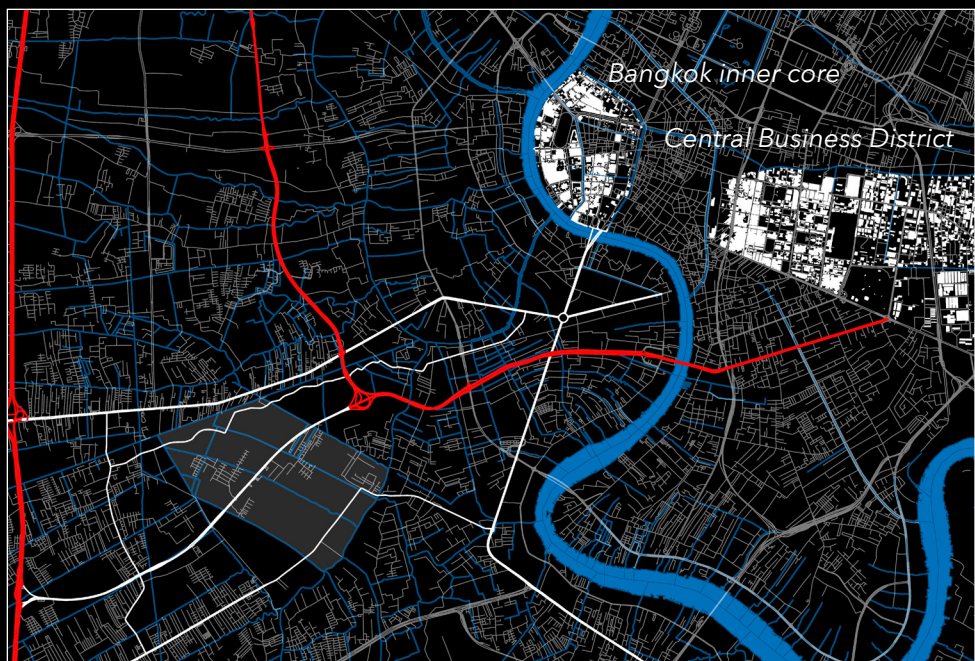


WATER



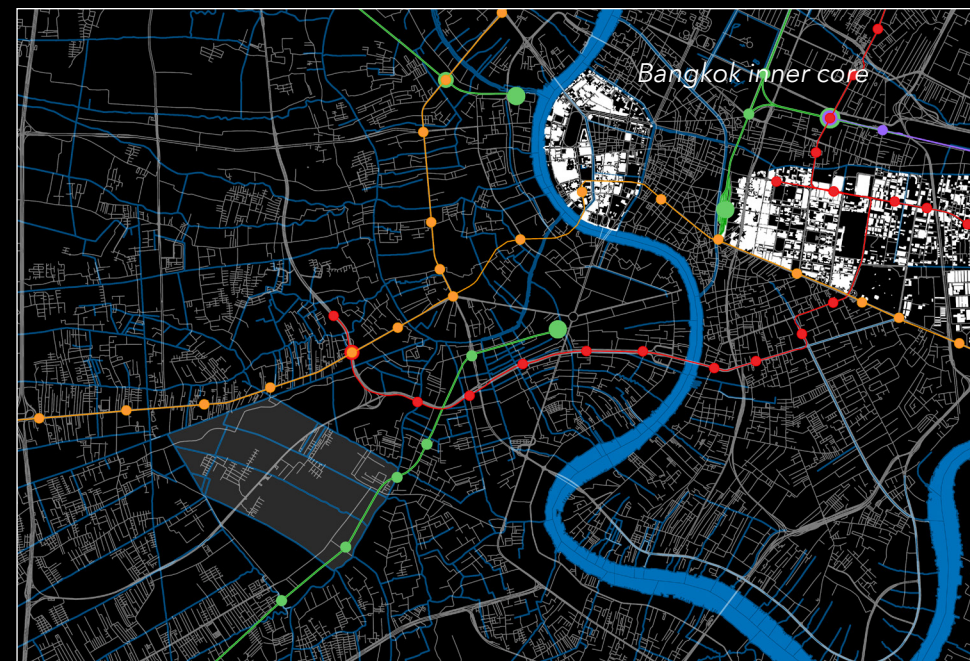
AGRICULTURE

- Temple
- Local market



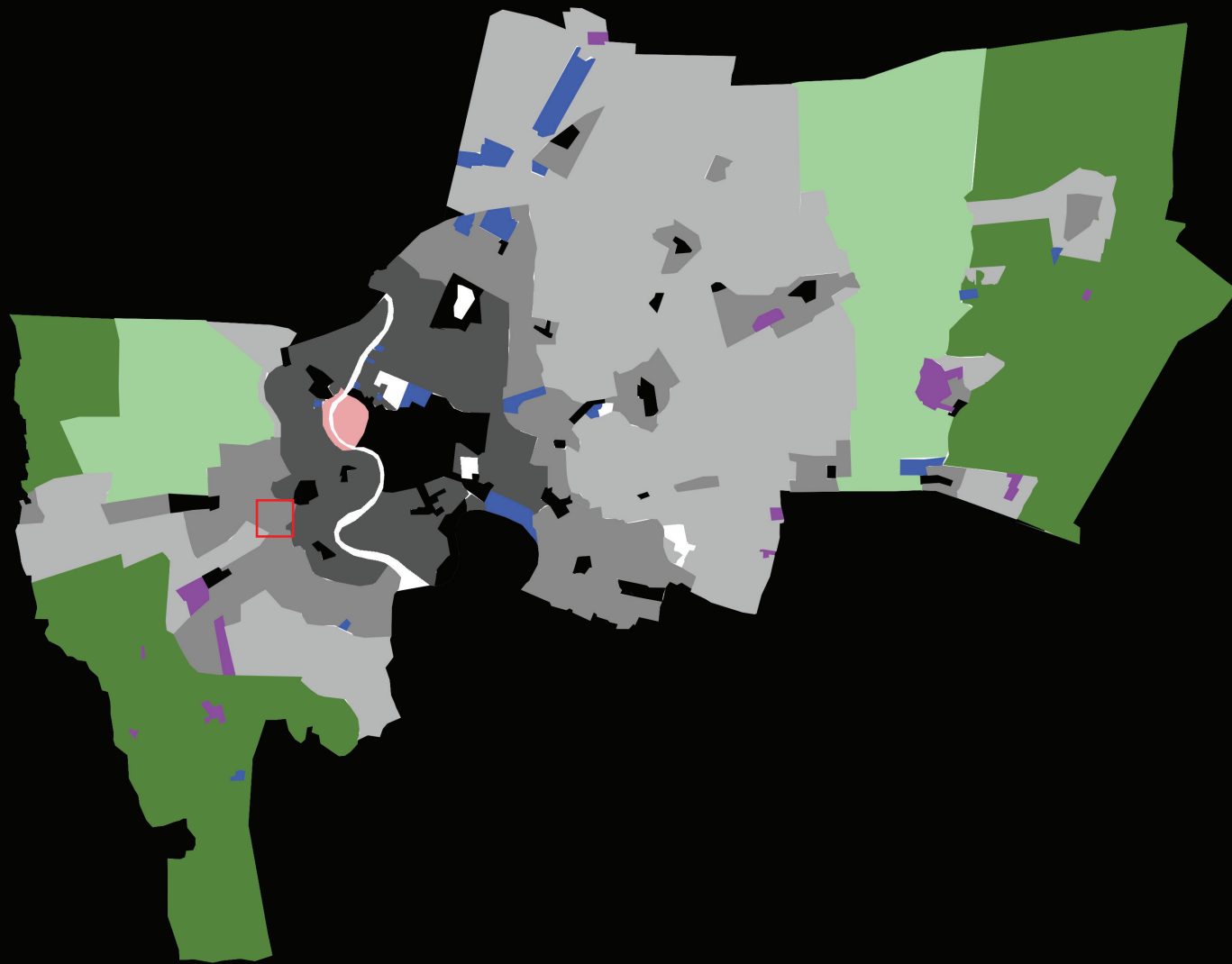
ROAD











- Ring road
- Ordinary road



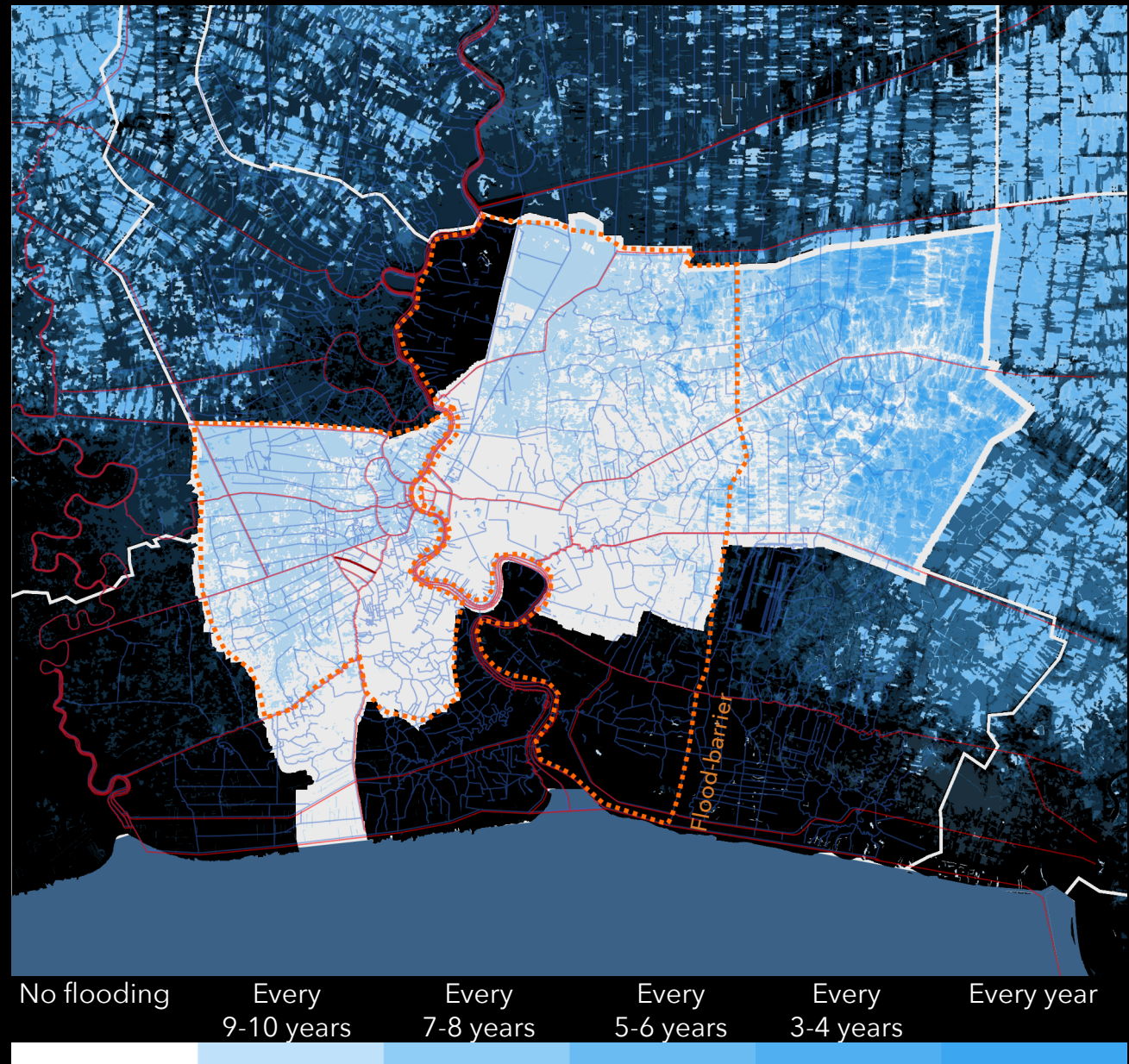
PUBLIC TRANSIT

- AIRPORT LINK
- BTS (Sky train)
- MRT (Metro line)
- Regional train



	Site location	
	Rural agricultural area	FAR 1:0.5-1.1
	Agriculture and green belt area	FAR 1:0.5-1.1
	Low density residential area	FAR 1:1-1:3
	Medium density residential area	FAR 1:4-1:5
	High density residential area	FAR 1:6-1:8
	Commercial area	FAR 1:5-1:10
	Industrial area	FAR 1:2-1:15
	Government area	FAR -
	Historical heritage area	FAR -

City planning map for 2017-2021
Edited from: City planning map, Department of city planning, Thailand, 2017



Bangkok's flood frequency 2006-2016
Source: Thailand flood monitoring system

PROJECT

CONTEMPORARY ORCHARD COMMUNITIES:
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PLANNING STRATEGY
HOUSING TYPOLOGY



Source: Rak BangPrathun

COUNTERPROPOSAL

This diploma project aims to provide a counterproposal to a projected development in the west side of Bangkok that is going to irreversibly disrupt the structure of the historical settlement and its cultural landscape.

Questions

Can there be a model of residential development that accommodates and thus preserves the productive (agricultural) landscape?

Can the agricultural landscape, in its traditional form, be integrated as a recreation/productive area within a contemporary residential development?

Can such a project resolve the dichotomy between residential development (housing) and productive urban programs?

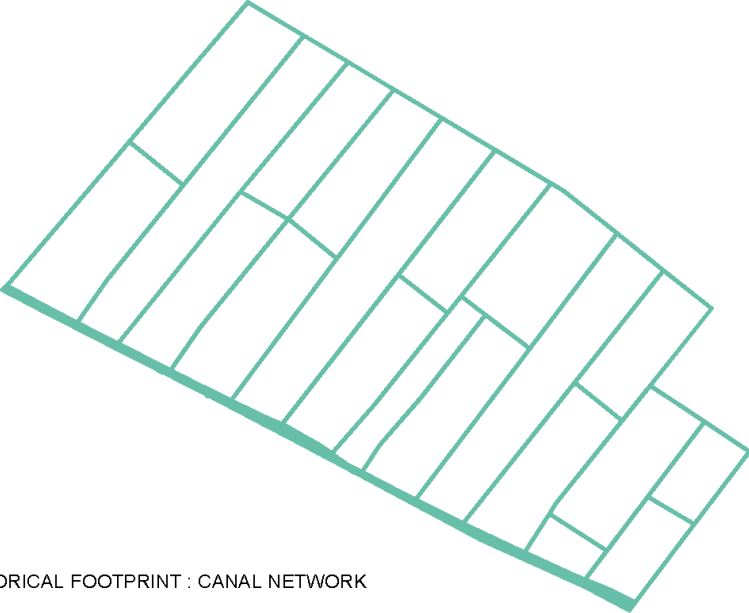
What kind of typology can continue to support a contemporary form of communal life, connecting the new residents with the native village population?

PROJECT

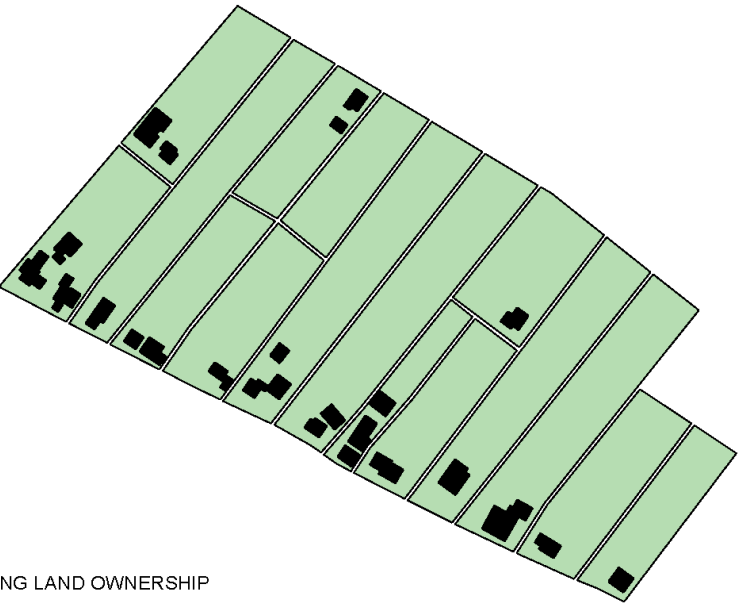
CONTEMPORARY ORCHARD COMMUNITIES:
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PLANNING STRATEGY
HOUSING TYPOLOGY

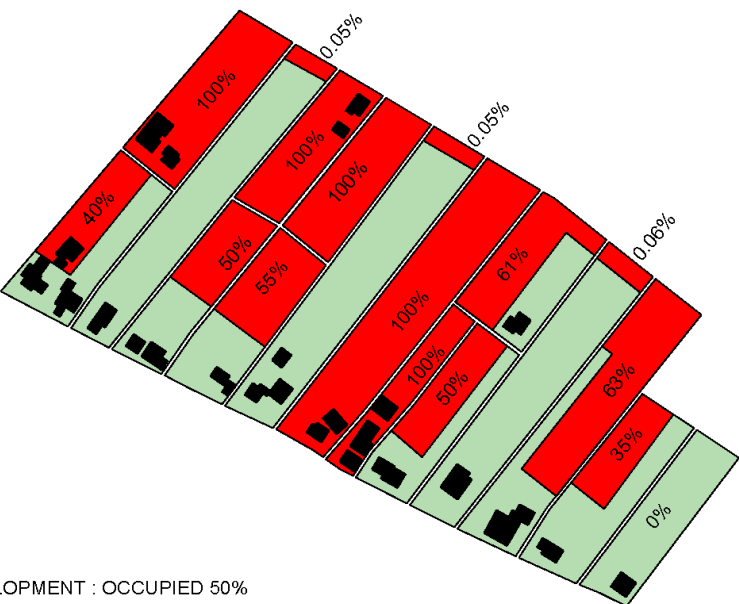




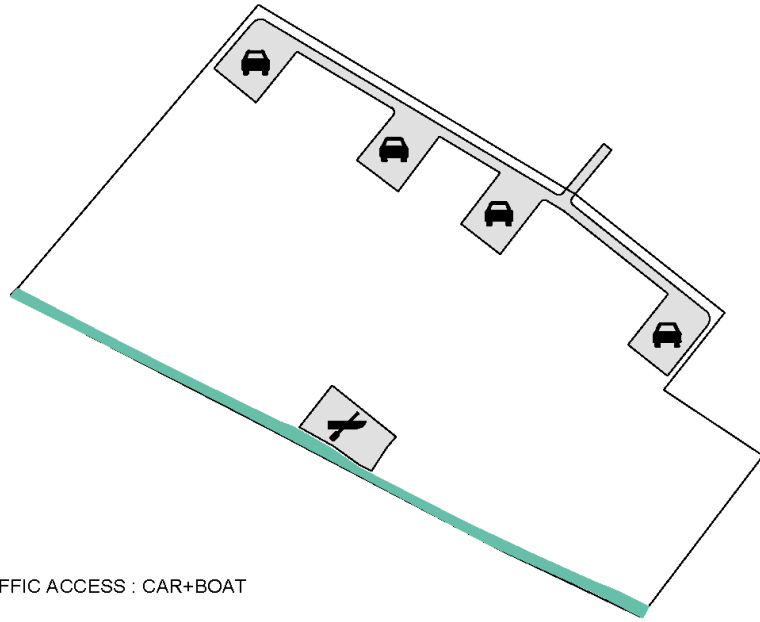
HISTORICAL FOOTPRINT : CANAL NETWORK



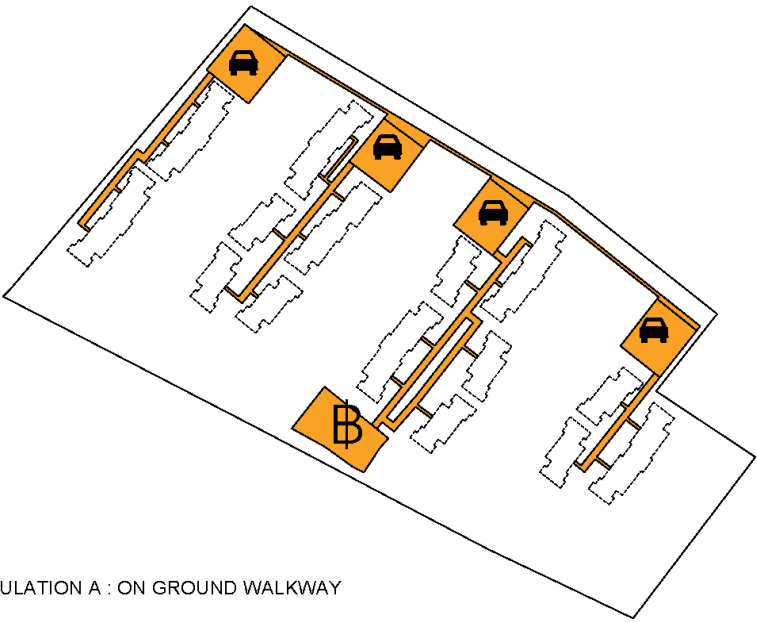
EXISTING LAND OWNERSHIP



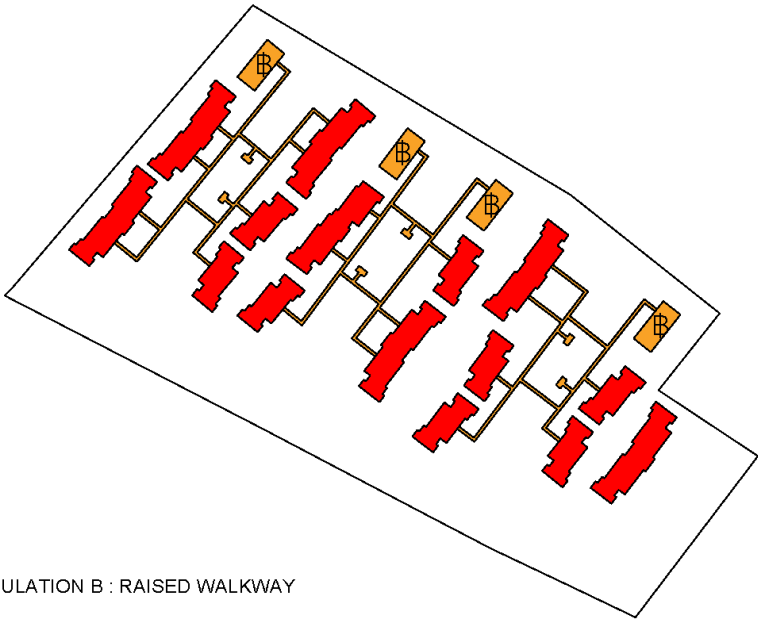
DEVELOPMENT : OCCUPIED 50%



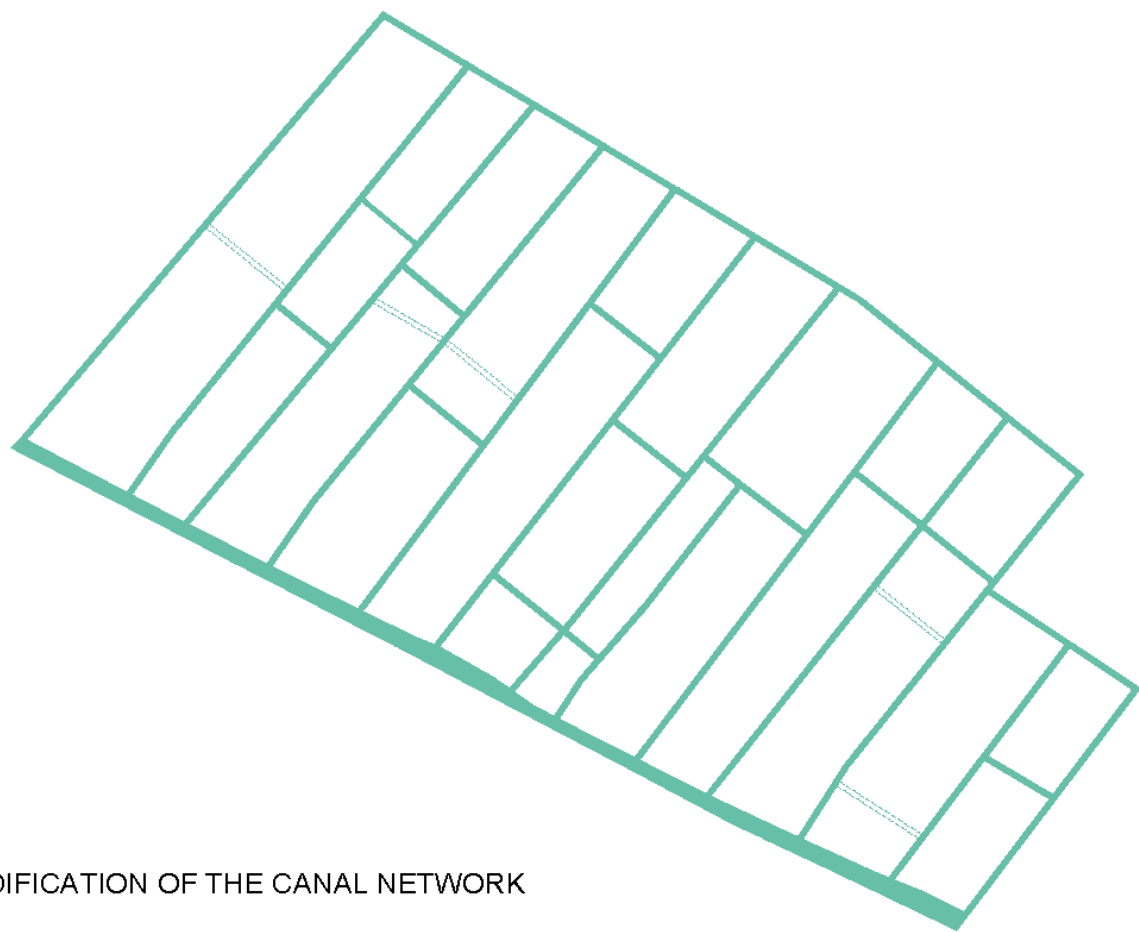
TRAFFIC ACCESS : CAR+BOAT



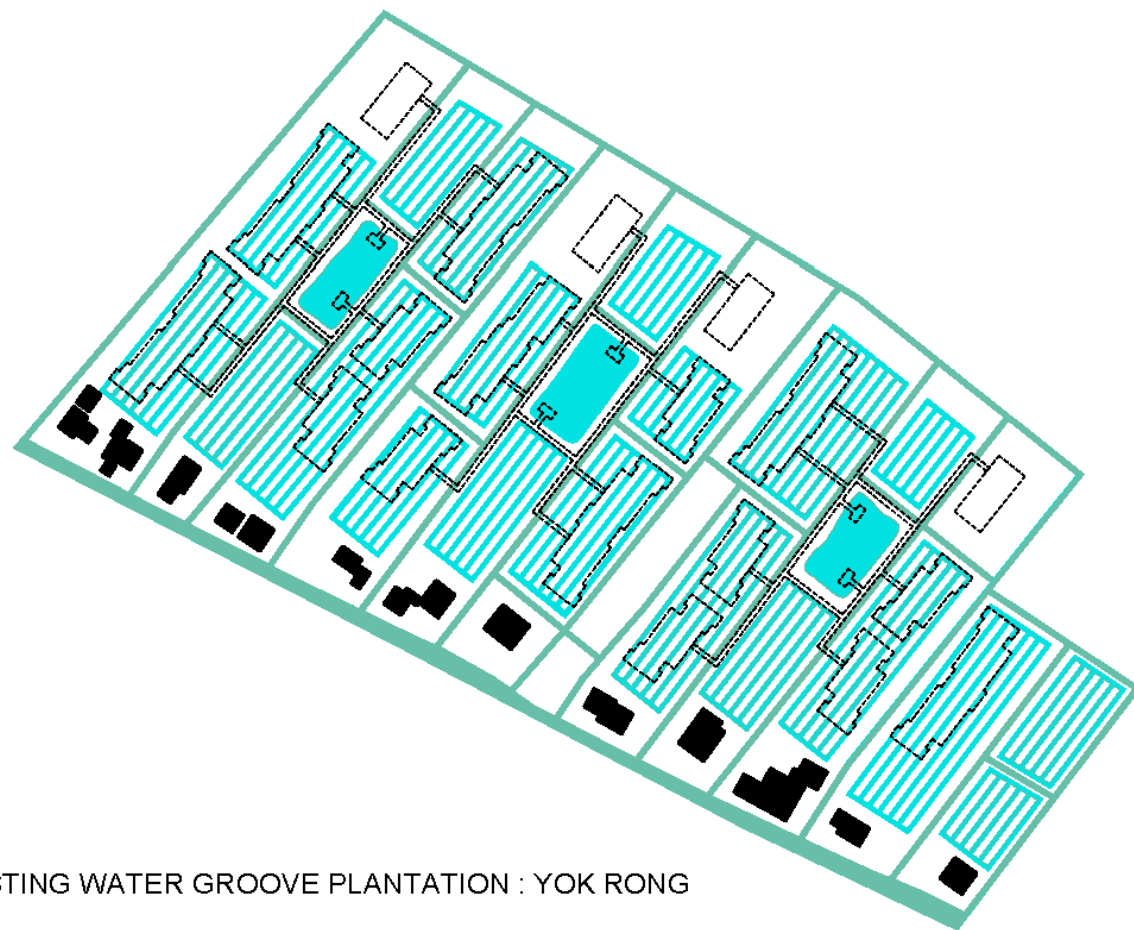
CIRCULATION A : ON GROUND WALKWAY



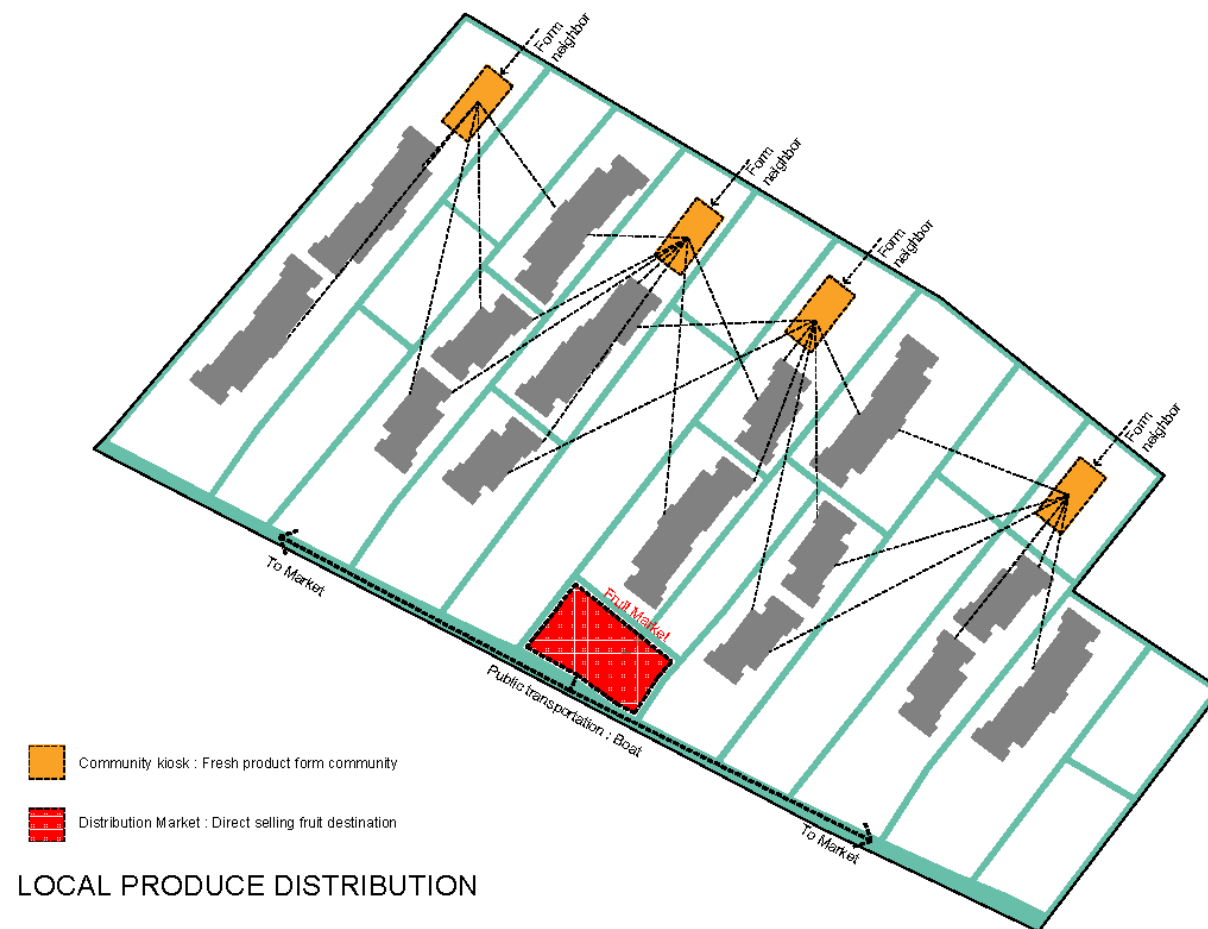
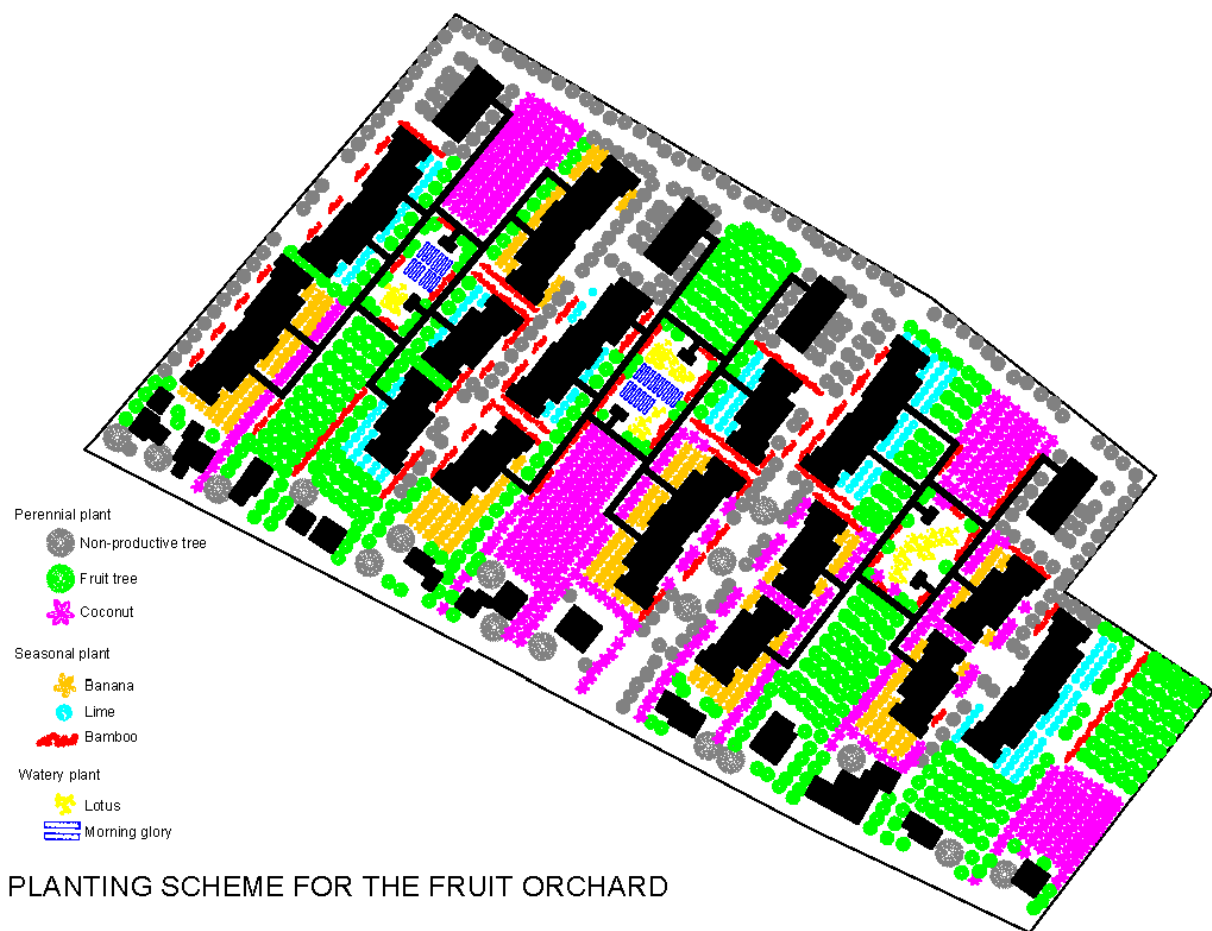
CIRCULATION B : RAISED WALKWAY

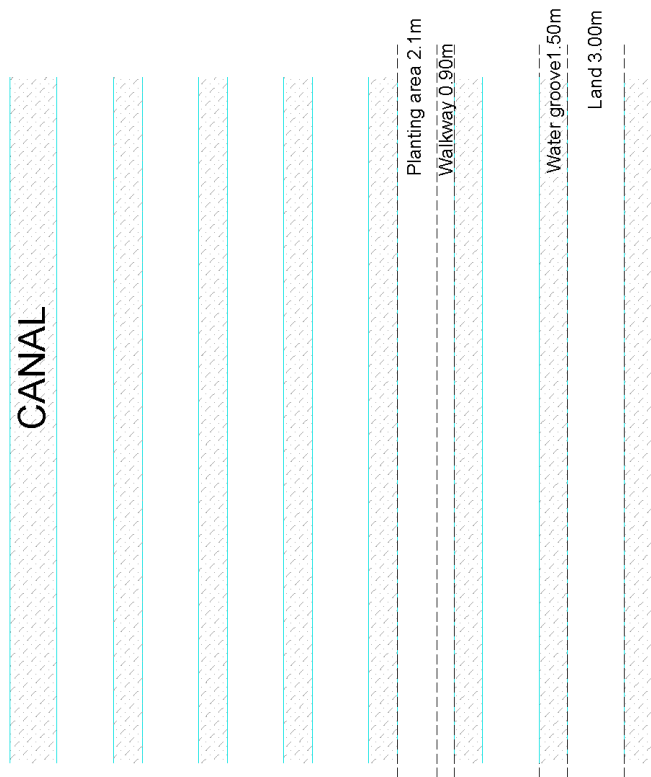


MODIFICATION OF THE CANAL NETWORK

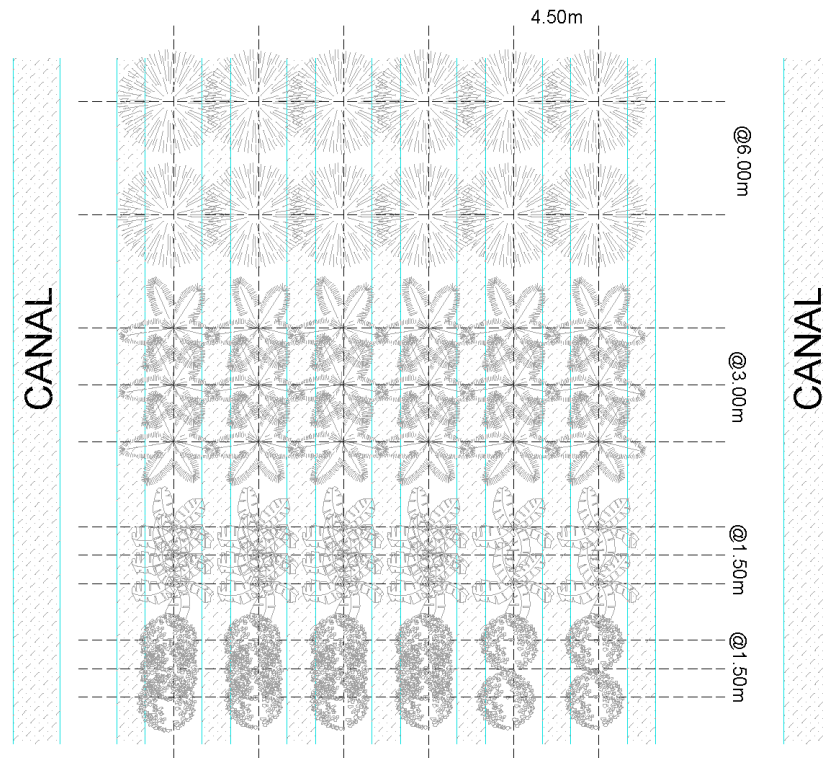


EXISTING WATER GROOVE PLANTATION : YOK RONG

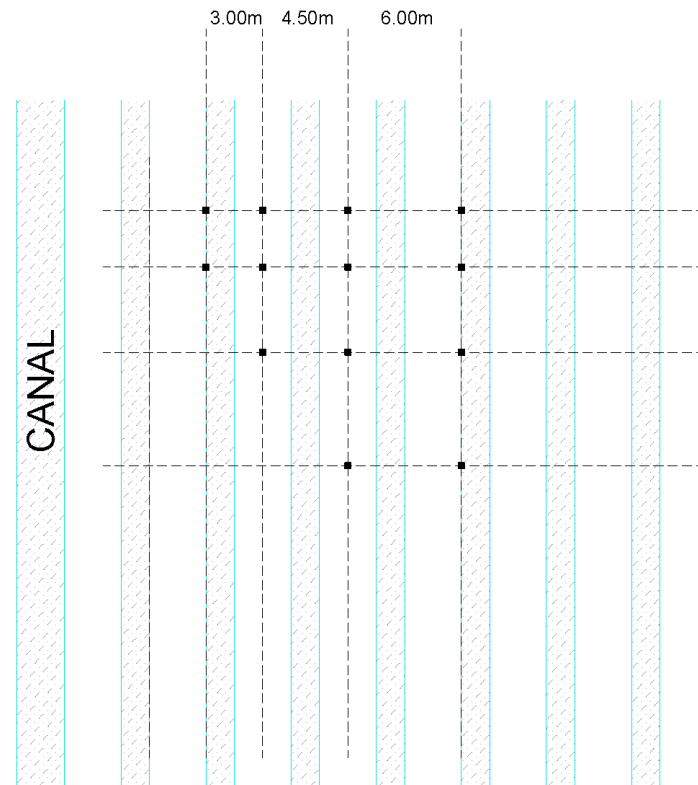




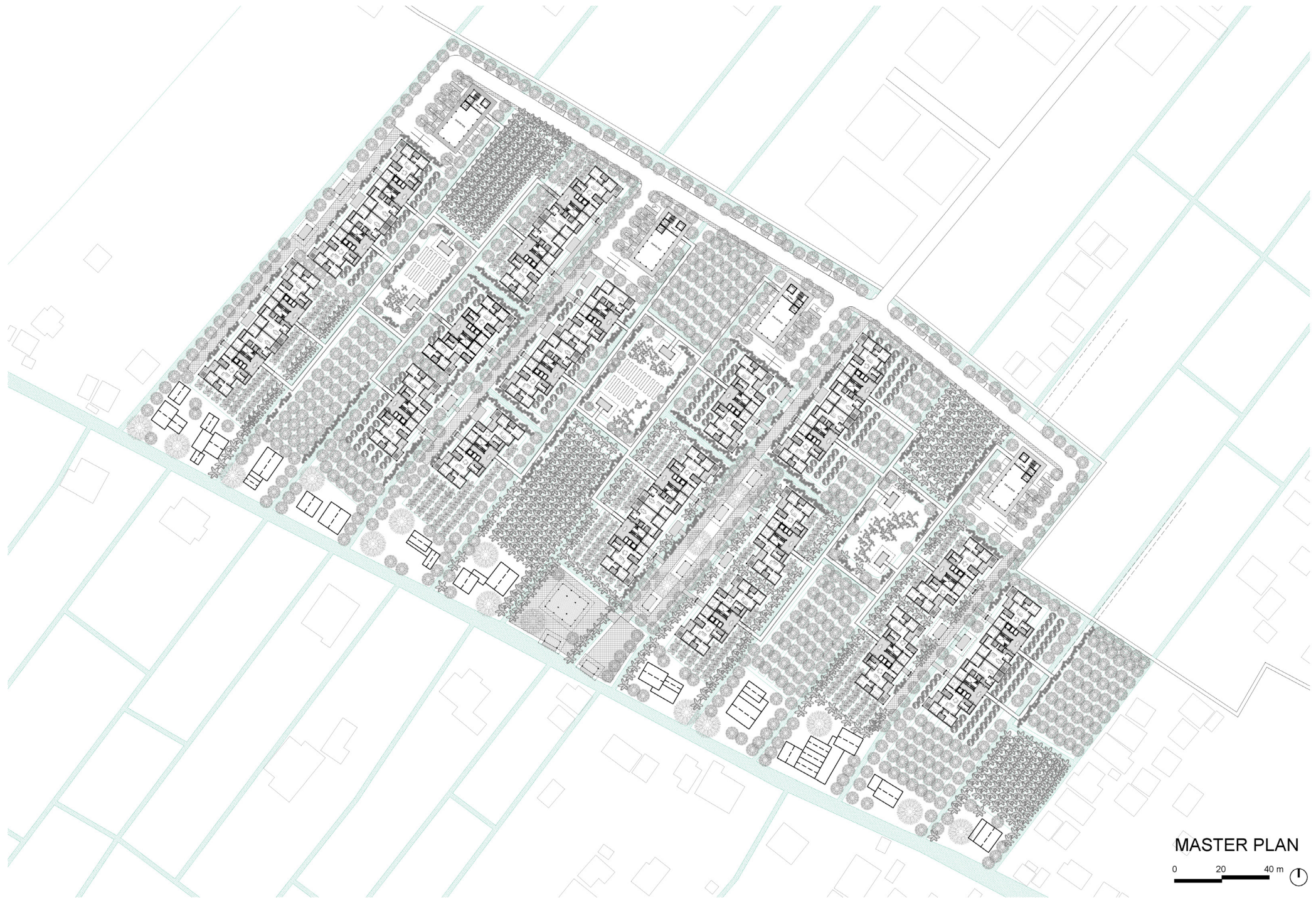
Water groove grid
water 1.50m & land 3.00m



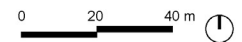
Agriculture grid
Mango/rose apple/Lichee tree @ 4.50-6.00m
Coconut/palm tree @ 3.00-4.00m
Banana/papaya tree @ 1.50-3.00m
Orange/lime/guava tree @ 1.50-3.00m

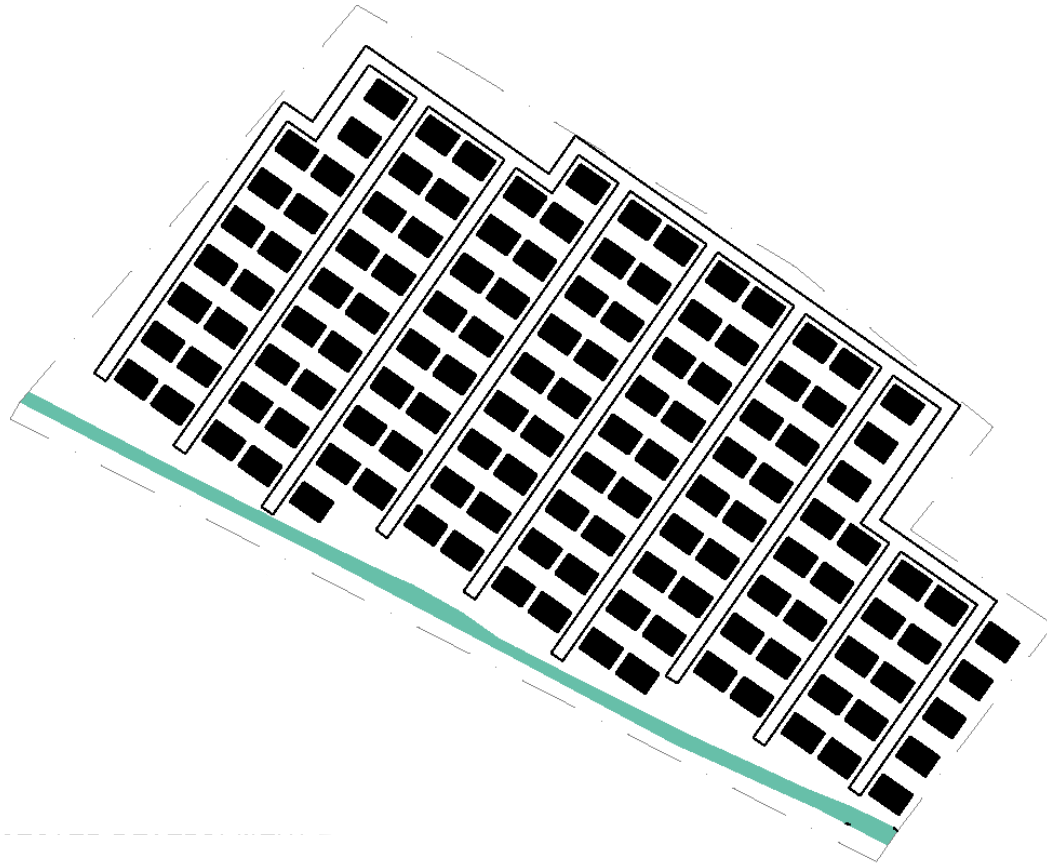


Structure grid
3.00mx3.00m
4.50mx4.50m
6.00mx6.00m



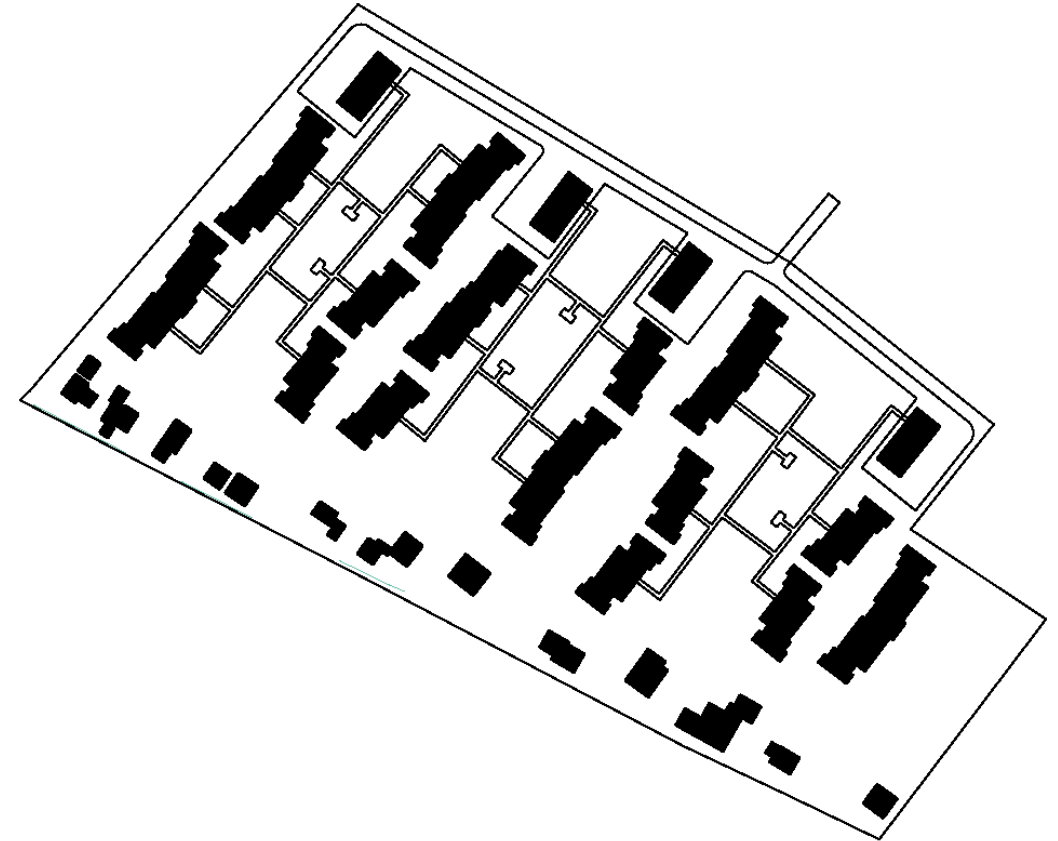
MASTER PLAN





THE PROJECTED HOUSING PROJECT, 2020

OCCUPIED LAND TYPOLOGY	100% 3 BEDROOMS SINGLE HOUSING
UNIT SIZE NUMBER	150-250 SQM. 135 UNITS
DENSITY	0.41 FAR
OPEN SPACE	75%
GREEN SPACE	61%
GREEN SPACE FUNCTION	ISOLATE PRIVATE GARDEN AND PAVED ROAD



CONTEMPORARY ORCHARD COMMUNITIES

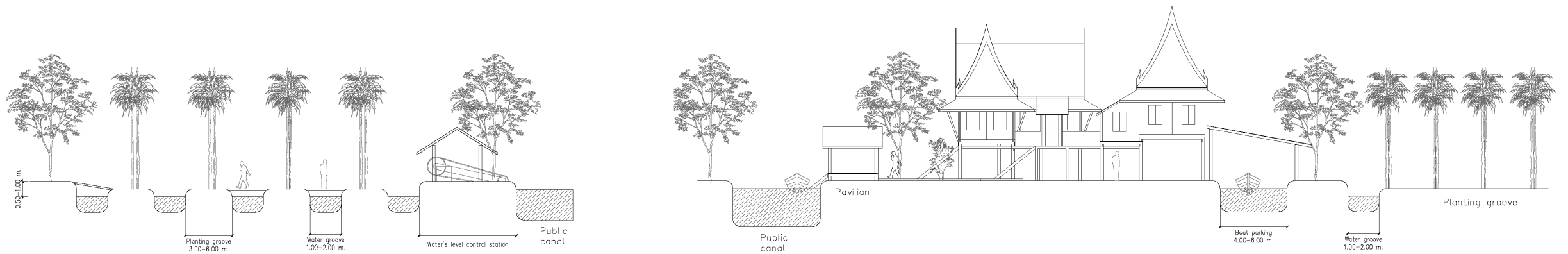
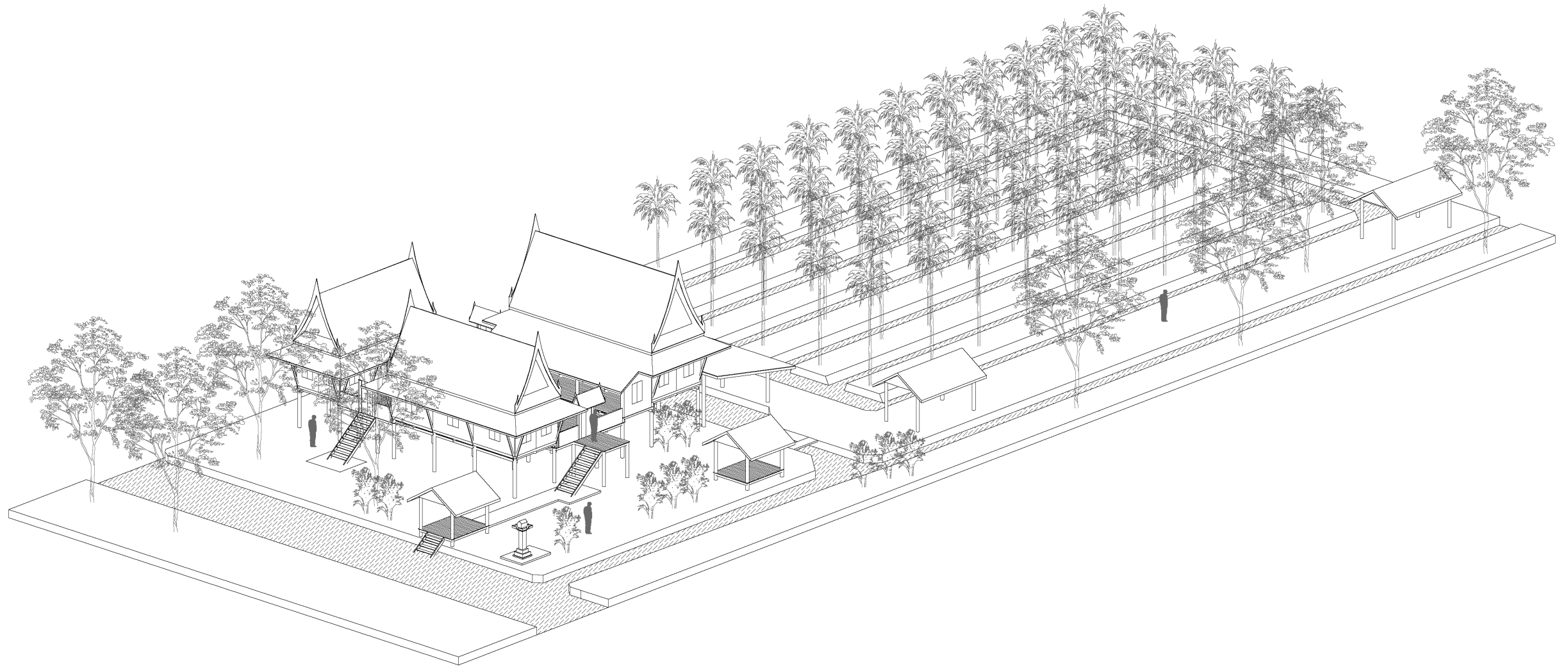
OCCUPIED LAND TYPOLOGY	50% 3 BEDROOMS APARTMENT
UNIT SIZE NUMBER	146-198 SQM. 132 UNITS
DENSITY	0.57 FAR
OPEN SPACE	84%
GREEN SPACE	75%
GREEN SPACE FUNCTION	SOCIAL PLACE, CULTURAL LANDSCAPE AND EXISTING CANAL HOUSES

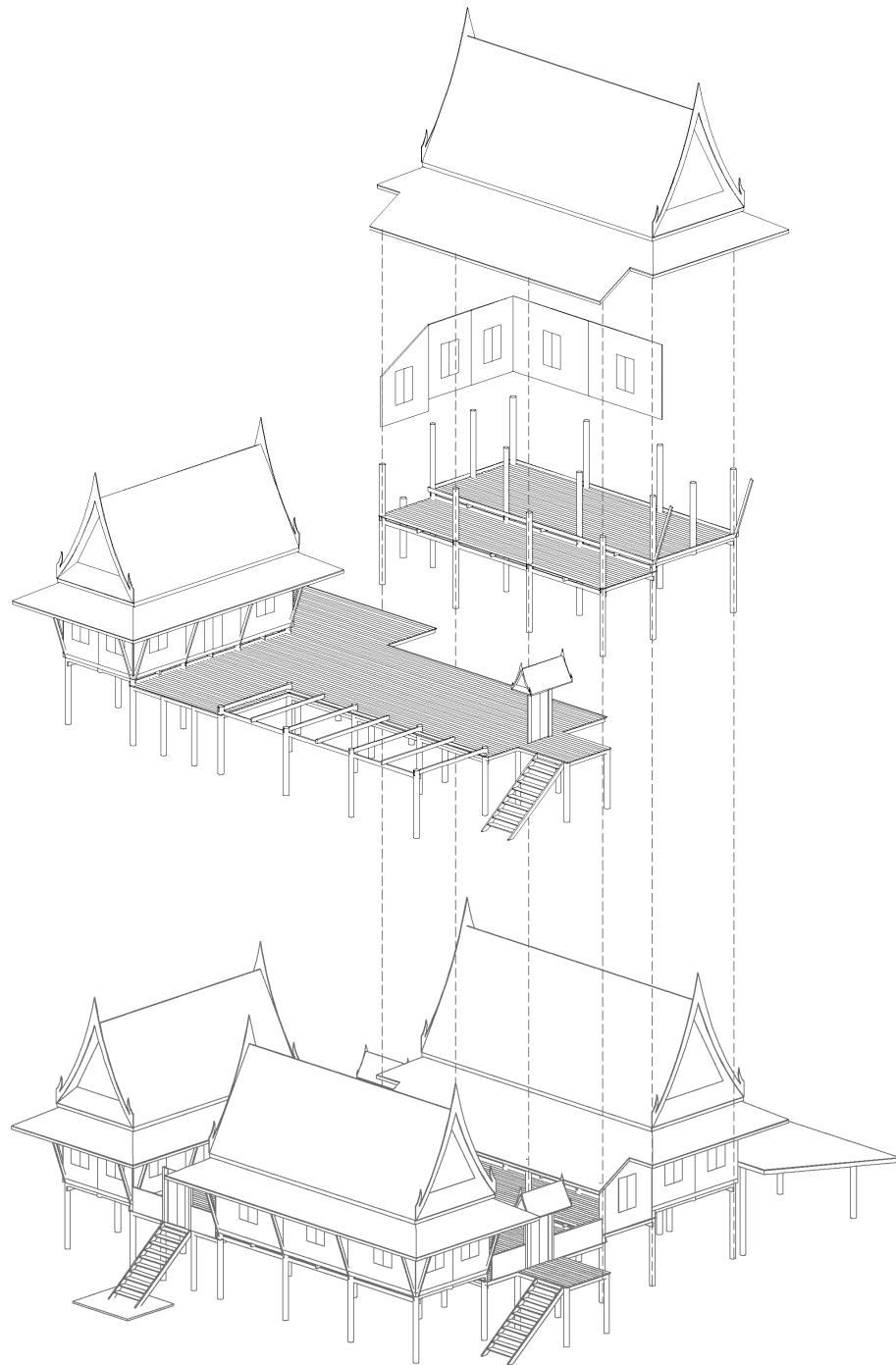
PROJECT

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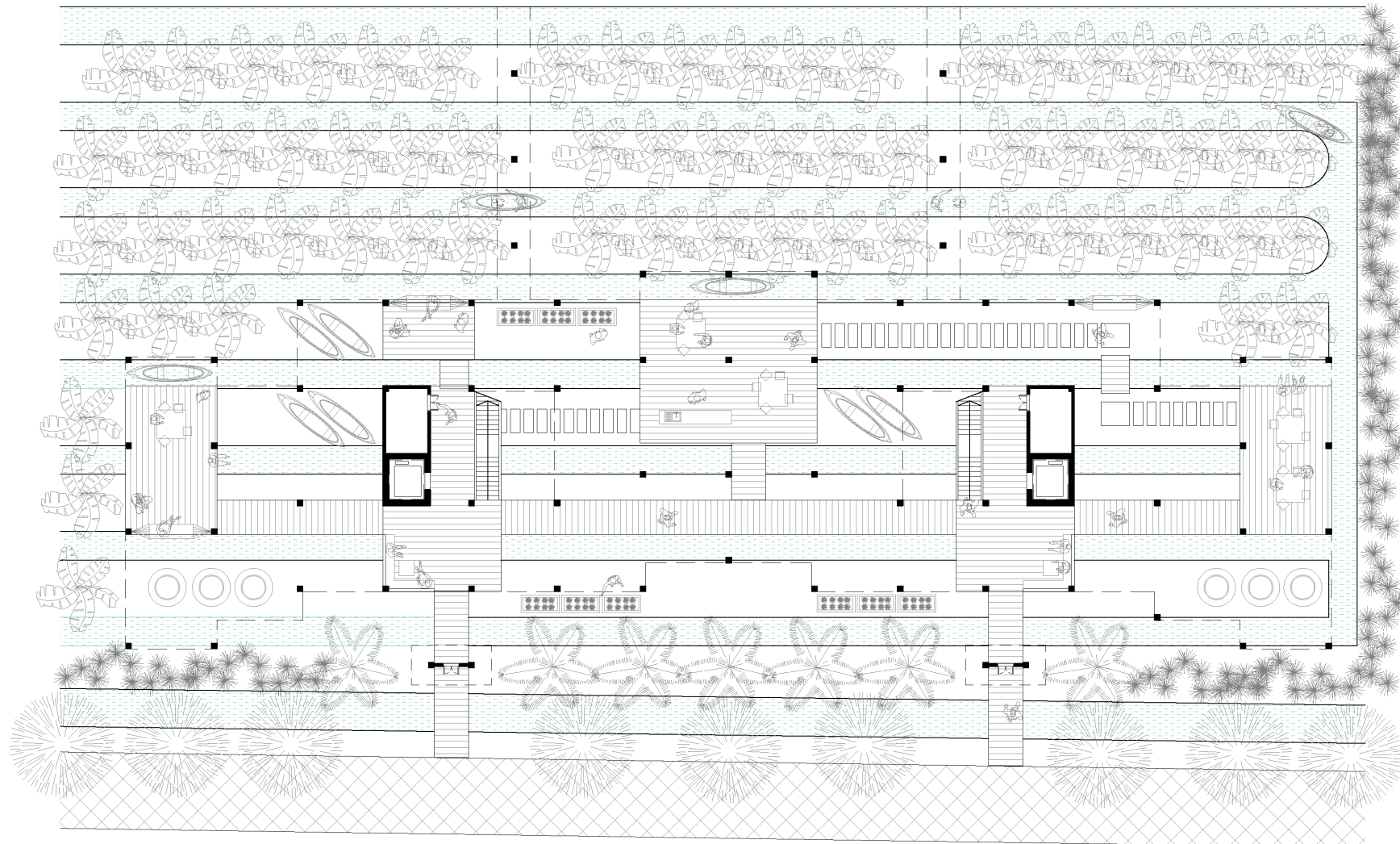
PLANNING STRATEGY
HOUSING TYPOLOGY



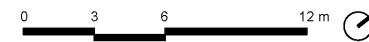


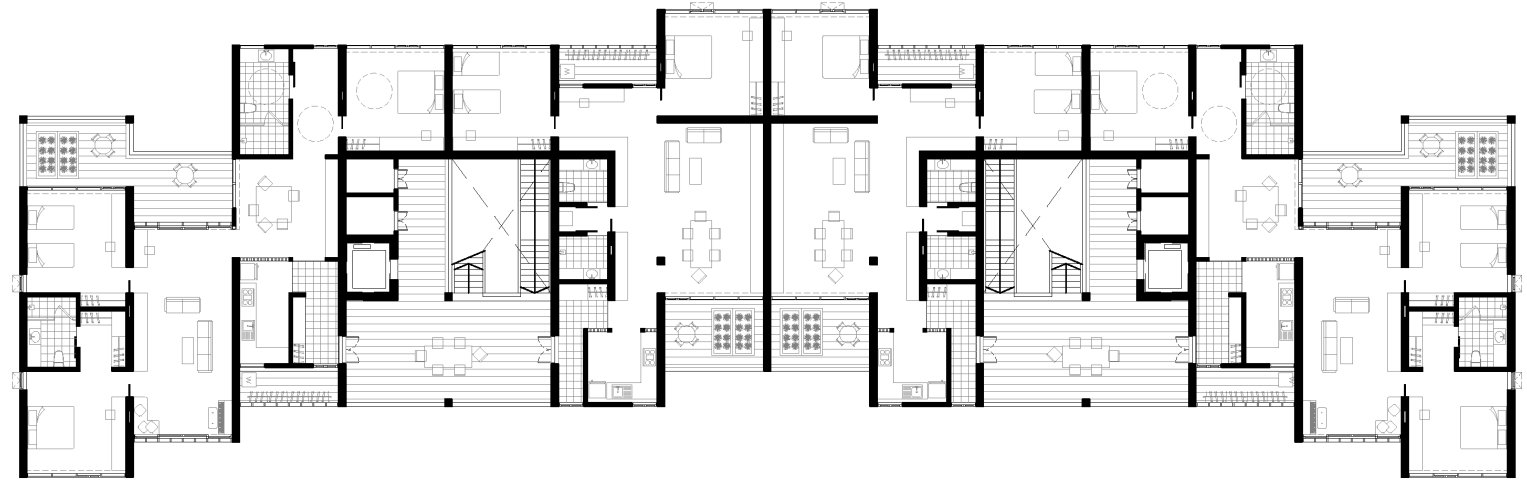


Source: Construction of Traditional
Thai-Style Wooden House,
Chulalongkorn university, 2013

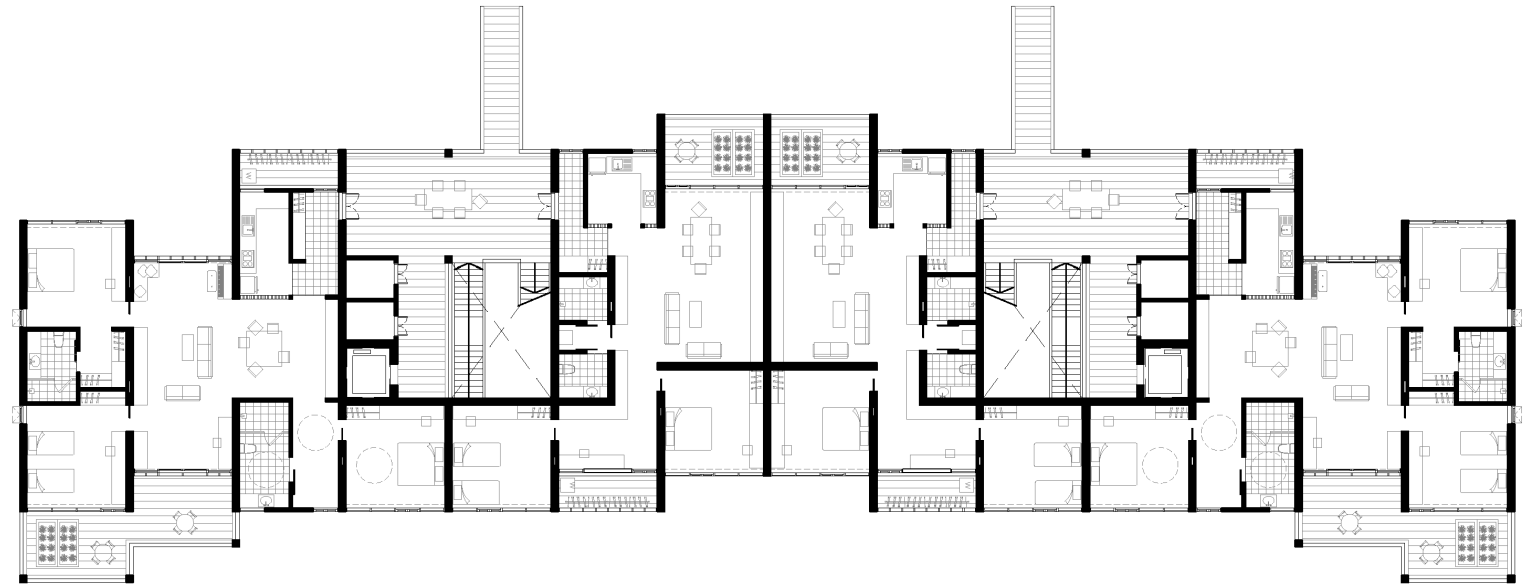


GROUND FLOOR



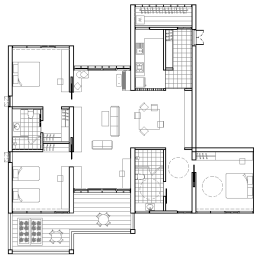
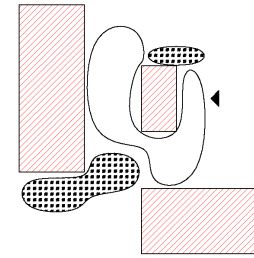
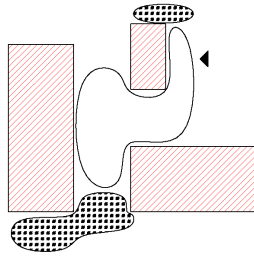


SECOND FLOOR



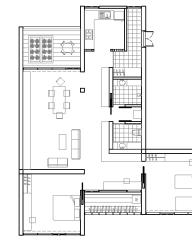
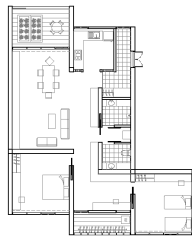
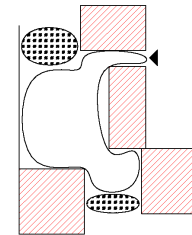
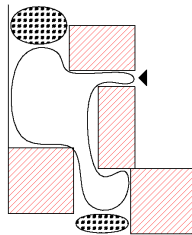
FIRST FLOOR





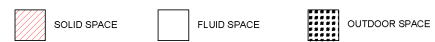
3 BEDROOMS 198 SQM TYPE A

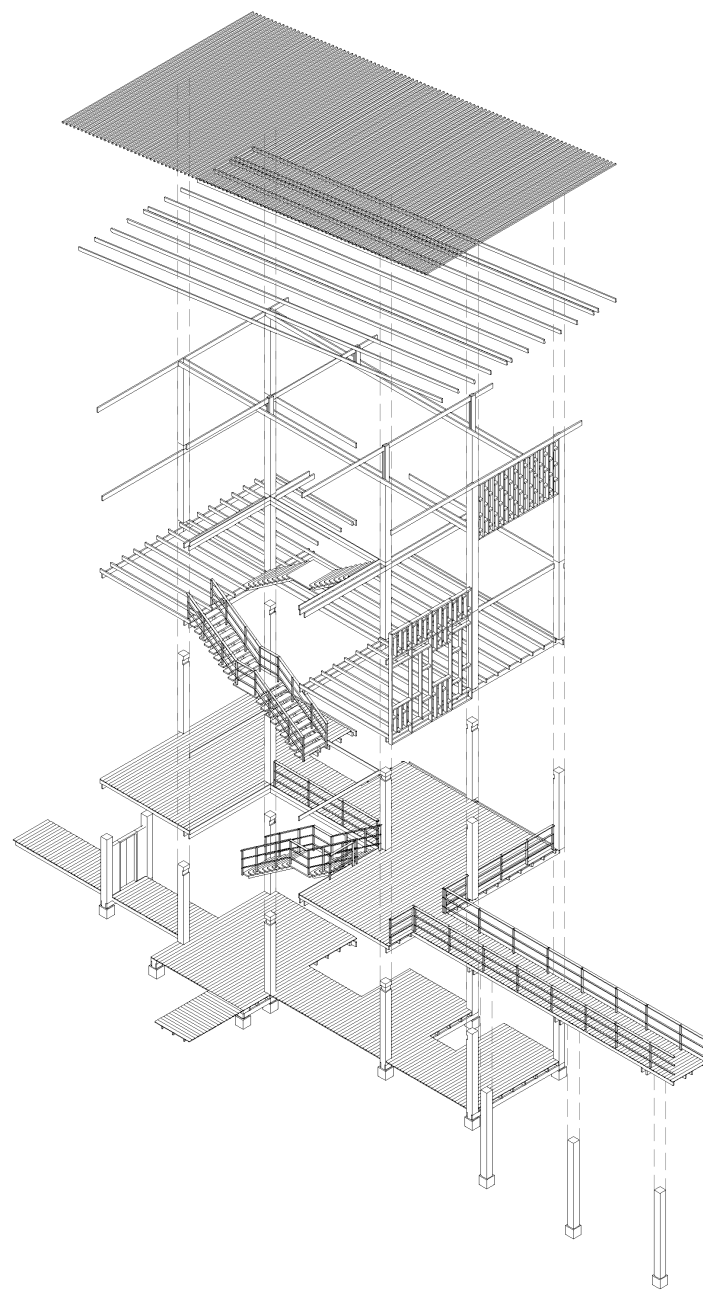
3 BEDROOMS 198 SQM TYPE B



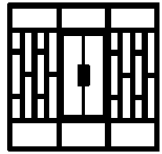
2 BEDROOMS 146 SQM TYPE A

2 BEDROOMS 146 SQM TYPE B

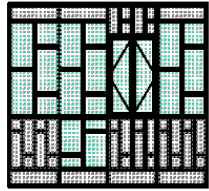




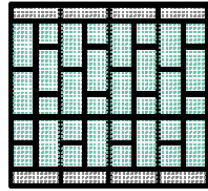
TRADITIONAL
PREFABRICATION
"PRAKOL" WALL



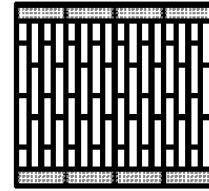
TYPE A BEDROOM
HALF OPENING



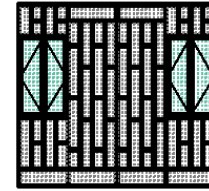
TYPE B LIVING ROOM
FULL HIGH
OPENING



TYPE C SERVICE BALCONY
FULL HIGH VOID



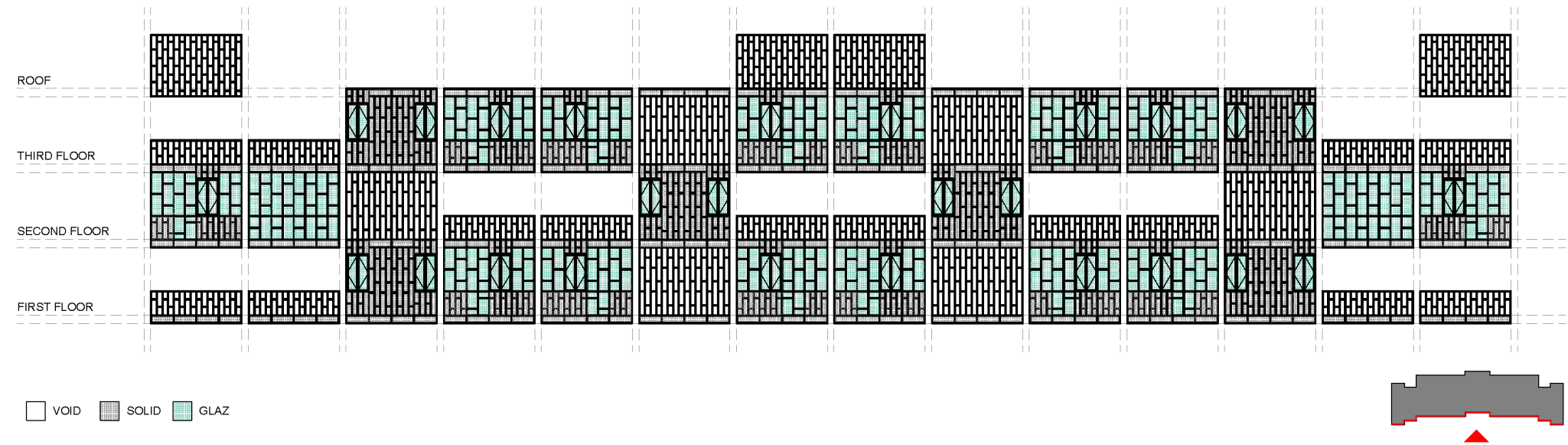
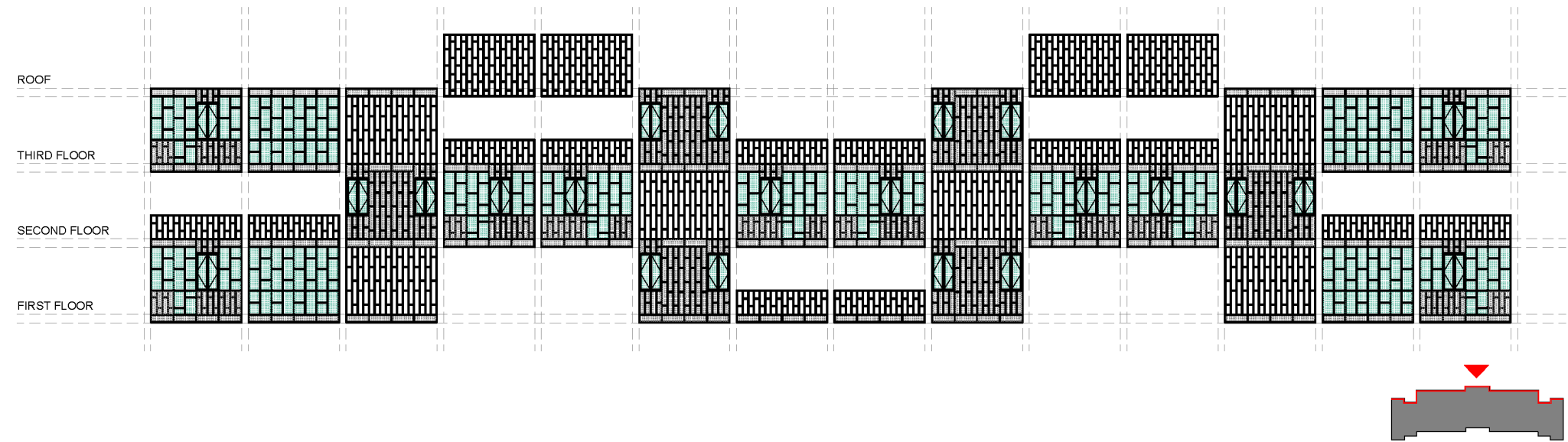
TYPE D BATHROOM&WALKWAY
JUST WINDOW



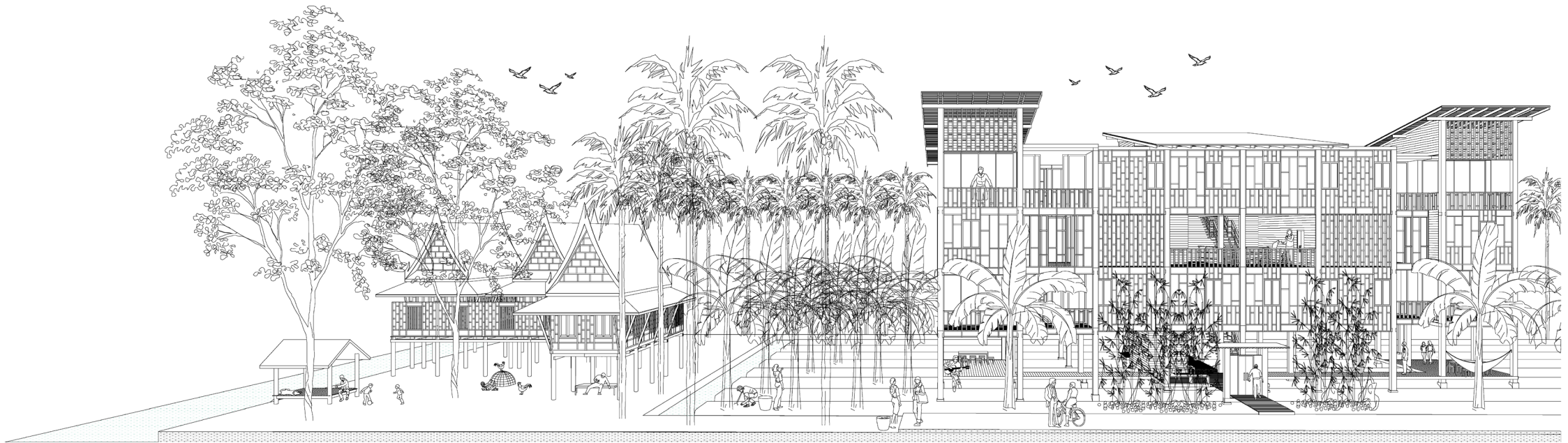
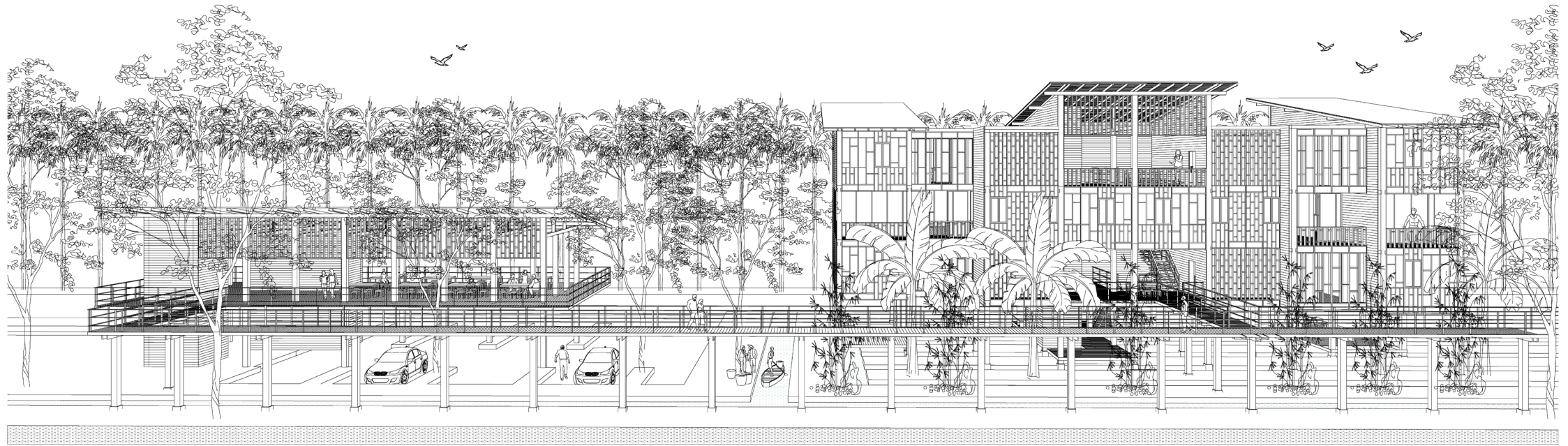
TYPE E BALCONY
VOID



VOID
 SOLID
 GLAZ







THANK YOU