# Intensive Training Program for Young Planning Professionals

23 January - 3 February

UPC - Abu Dhabi

2011

ISOCARP

YPP Training Program

مجلس أبوظبي للتخطيط العمراني
ABU DHABI URBAN PLANNING COUNCIL

# Intensive Training Program for Young Planning Professionals

**Week 1**

- 5 times one day seminar

- ISOCARP - Coordination Paco Perez (Vice President) - Mexico

- Other coordinators (Malaysia, Serbia, Turkey, UAE – Sjarjah, USA)

**Week 2**

- International 5 day Workshop

- ISOCARP - Coordination Zeynep Enlil (Vice President) – Turkey

- 24 workshop delegates (16 UAE and 8 ISOCARP YPP)

# ISOCARP – Knowledge for Better Cities    ISOCARP

**ISOCARP – global network:**

• Founded 1965;

• 750 members;

• Over 50 countries;

• Six continents;

• Planning Practice / Planningresearch / Academia;

• Annual congress / UPATS / Training Events / Publications.

# Intensive Training Program for Young Planning Professionals

| UAE delegates | | YPP delegates | |
|---|---|---|---|
| Ahmed Al Kuwati | UPC | Thomas Buhler | France |
| Suad Al Thehli | UPC | Madalen Gonzalez Bereziartua | Spain |
| Mariam Al Ameri | UPC | Zeynep Gunay | Turkey |
| Hamdan Al Mulla | UPC | Niels Kropman | Netherlands |
| Sultan Echtibi | UPC | Mira Milakovic | Serbia |
| Muna Al Shehhi | UPC | Wai Ki Pang | China |
| Mansour Al Harbi | UPC | Rolf Schuett | Germany/Bolivia |
| Ahmed Al Hamed | UPC | Peter Vanden Abeele | Belgium |
| Ahmed Al Zaabi | UPC | | |
| Mahmoud Al Mahmoud | UPC | | |
| Mohamed Al Hammadi | UPC | | |
| Omar Al Suwaidi | UPC | | |
| Jaber Al Dharif | DOT | | |
| Muath Al Mazrooei | DOT | | |
| Mohamed Al Ameri | ADM | | |
| Maha Al Rumaithi | ADM | | |

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4

# Intensive Training Program for Young Planning Professionals

## Local Coordinators

| | |
|---|---|
| Dima Al Srouri | UAE |
| Sonal Parikh | UAE |
| Olivia Duncan | UAE |
| Sura Abdelhadi | UAE |
| Swapnil Patil | UAE |

## UPC Contact Person

| | |
|---|---|
| Sally Biggins | UAE |

## YPP Coordinators

| | |
|---|---|
| Peter Jonquiere | Netherlands |
| F. Brandao Alves | Portugal |

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# Intensive Training Program for Young Planning Professionals

## Training Goals

### Contemporary urbanism + practical knowledge

| | | |
|---|---|---|
| WK 1 | Exposure | acquire knowledge |
| | Excercise | applying new knowledge |
| WK 2 | Experience | international professional exchange |

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# Intensive Training Program for Young Planning Professionals



## MUSAFFA

## as training ground

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# Group Vision, Strategy, Implementation Framework

Maha Alrumaithi

Mansour Al Harbi

Mahmoud Al Mahmoud

Ahmed Al Zaabi

Zeynep Gunay

Niels Kropman

# Introduction

- **Where are we?**

- **Where do we want to be?**

- **How do we go there?**

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# Where are we?



Problems

**Connectivity**
- Poor links (in&out)
- Poor pedestrian network

**Morphology**
- Bad quality of the buildings
- Too large plots
- Heavy industry

**Integration**
- Isolated
- Not human-friendly
- Lack of urban public space

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# Where are we?



**Potentials**

**Connectivity**
- Proximity
- Transfer hub
- Well-structured grid

**Morphology**
- Diverse plot size
- Waterfront

**Integration**
- Well-defined environment
- Waterfront
- Cultural exchange

# Where do we want to be?

- **Vision**

- **Key guiding principles**

- **Strategies & objectives**

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# Abu Dhabi and Musaffa, HAPPY TOGETHER!

# Where do we want to be?
# Key guiding principles

**Key Principles**

Citylevel

Districtlevel

Buildinglevel

Sustainabillity

Connectivity

Livability

Educational
Creative
Artistic
Religious
Green
Environment

Social
Diversity
Community
Cultural

Affordable
Funtional
Efficient
Attractive
Flexible
Applicable

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15
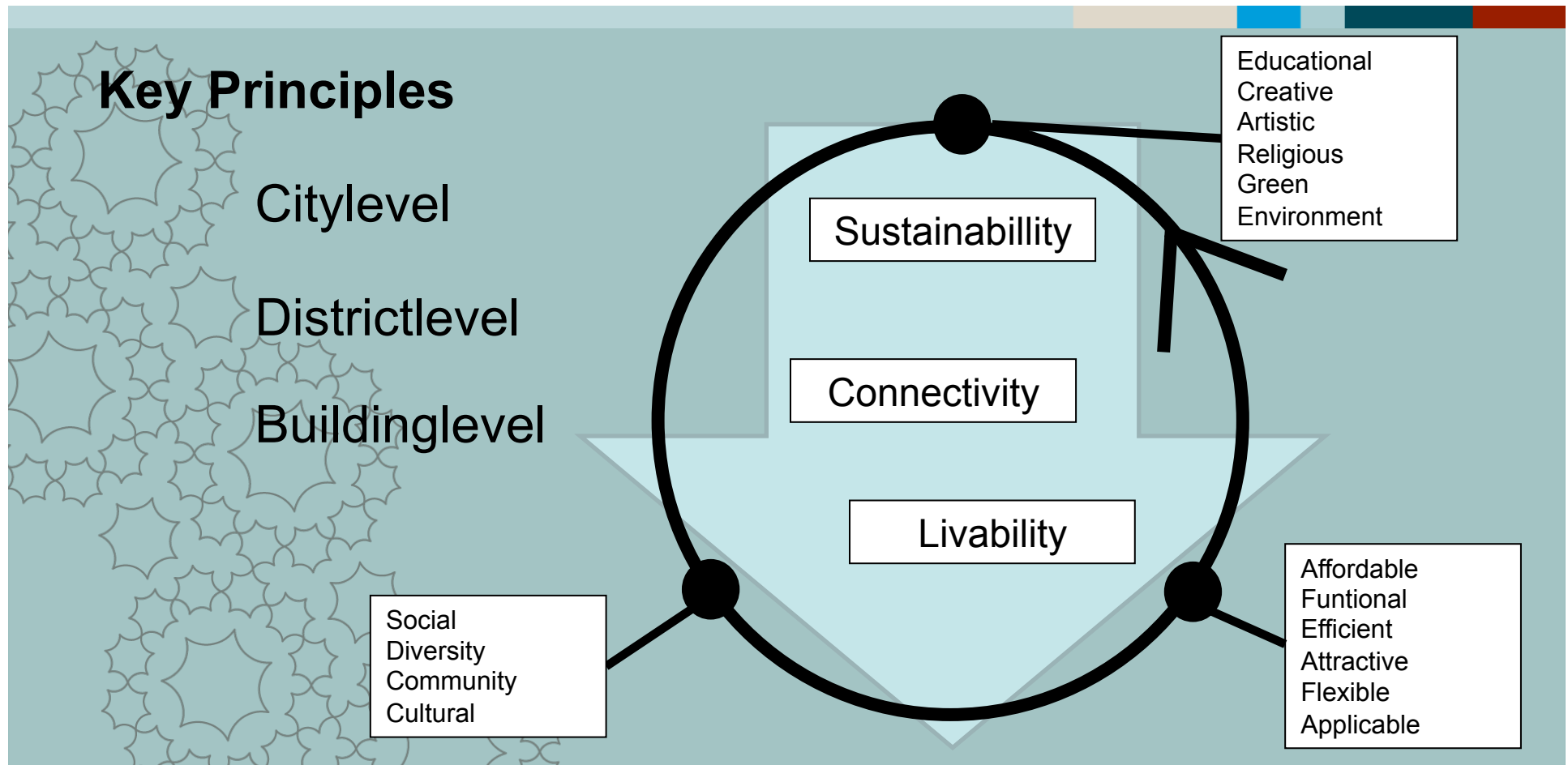
# Connectivity: A Connected Musaffah

Separating Light & Heavy Vehicles

Defining Entrances

Water Taxies

Linking Open Areas

Transportation Hub

More Bus Routes

Walk-able Pedestrian Network

Public Transport

Infrastructure

Re-Calculate Service Demands

Pedestrian Network

Connectivity Sustainability Liveability

Cargo Distribution

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# Morphology & Activities: A Livable Musaffah

Visible link Al Zayed Mosque

Renovate Buildings To Other Uses

Flexible Rules

Creative Industries

Knowledge Economy

Diversifying Economy

Flexible & Dynamic Design

Create Landmarks

Visible & Invisible Links

Connectivity Sustainability Liveability

Balanced / Mixed Use

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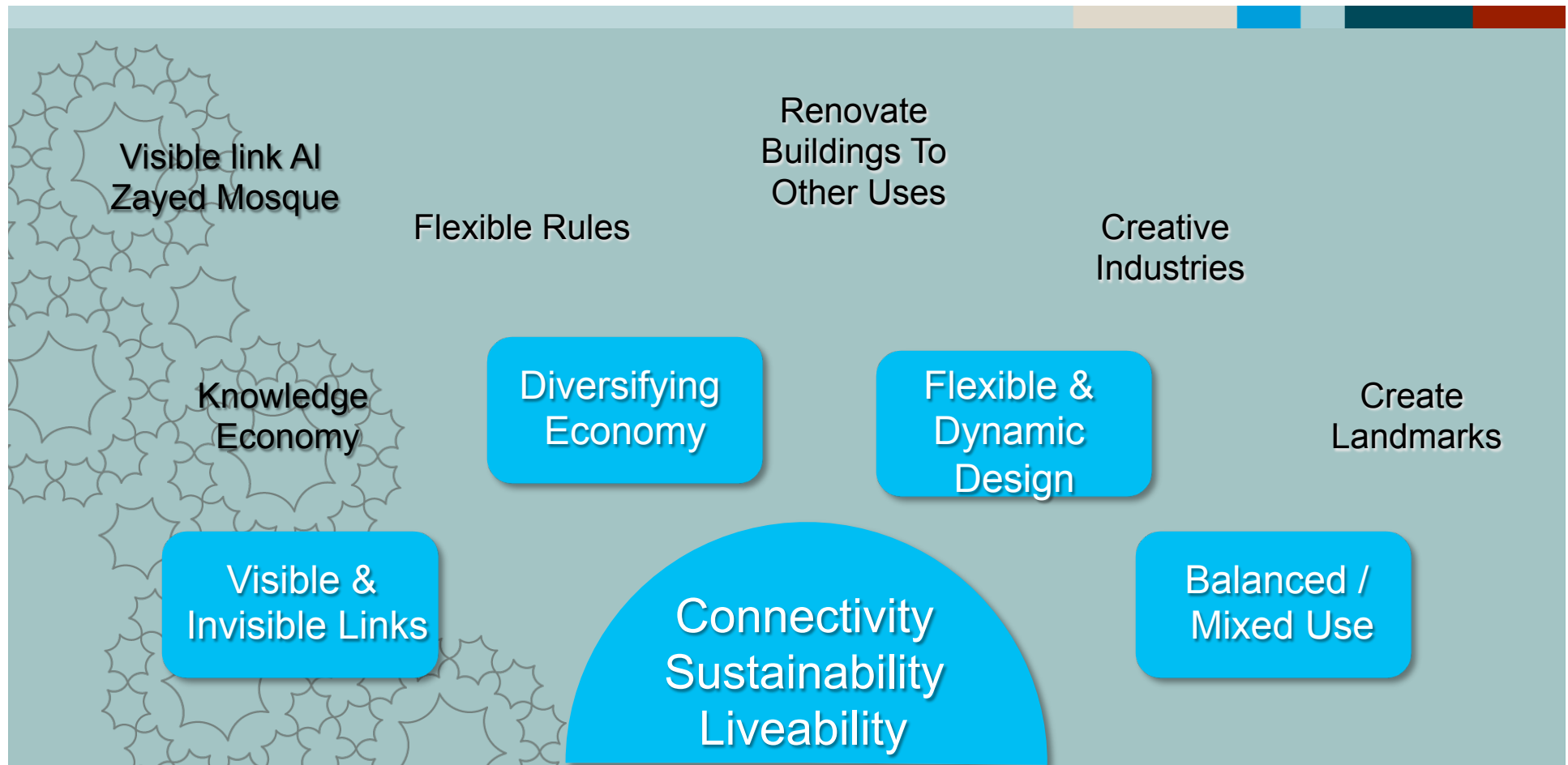
# Social Integration: An Inclusive Musaffah

Create A Multiuse Area

Visual Link To City / The Grand Mosque

Improve Housing

Provide All Required Facilities

**Community Facilities**

**Identity**

Provide Public Spaces

**Living Conditions**

**Connectivity Sustainability Liveability**

**Sense of place**

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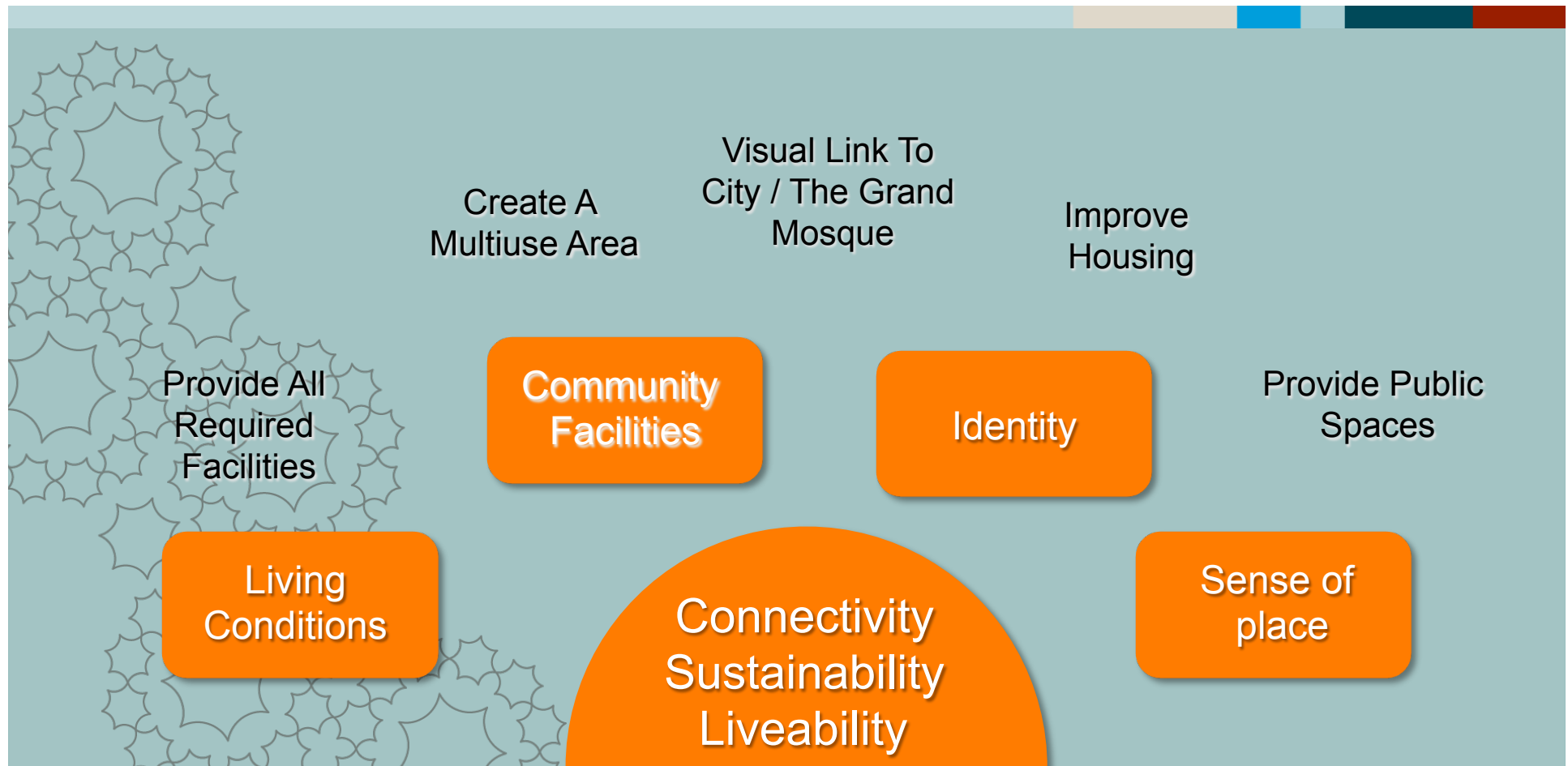
# Group A Infrastructure, Connectivity, Links & Transportation

Mohamed Al Hammadi

Ahmed Al Hamed

Muath Al Mazrooei

Penny Wai Ki Pang

Rolf Schuett

Souad Al Thehli

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مدينة رؤية
Vision

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# Musaffah 2030

Group A

Infrastructure, Connectivity, Links & Transportation

# Introduction: Transport

**Methodology**

Analysis: | Existing → Future

Scales: | UAE ↔ City ↔ District ↔ Sites

Modes: | People ↔ Public ↔ Private

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# Existing Analysis - SWOT

## Strengths

**City Scale**
+ Short distance to most parts of the city

**District Scale**
+ Proximity to waterfront
+ Adjacent to main spine road "Truck Road"
+ Existing clear grid pattern
+ Self-organised and Non car-dependent communities

**Site Scale**
+ Long waterfront area

## Weaknesses

**City Scale**
+ Existing congested bridges
+ Inadequate public transport for people
+ Absence of rail-based network for goods

**District Scale**
+ Limited bus network
+ Inaccessible waterfront areas
+ Car-oriented urban form /street patterns

**Site Scale**
+ Though weather reduces walkability
+ Weak sense of place, difficult to navigate

## Opportunities

**City Scale**
+ Connect Mussafah to other parts of the city / UAE
+ Suitable for water-based transport
+ Pioneer sustainable transport modes

**District Scale**
+ Create pedestrian and cyclist-friendly network
+ Demands in public transport

**Site Scale**
+ Enhancement for pedestrian and cyclist friendly

## Threats

**City Scale**
+ Existing bus network is not wheelchair accessible
+ Worsen pollution if no solutions in place

**District Scale**
+ Bottle-necks at road junctions
+ Mussafah as an industrial ghetto

**Site Scale**
+ Inefficient under-ground parking due to water table

# Questions

**Q Transport Network**

How can Mussafah accommodate new land use and development?

**Q Connection**

How can Mussafah be better connected to wider areas?

**Q Accessibility**

How can Mussafah and its waterfront can be more accessible?

**Q Less Cars**

How can Mussafah be less car-dependent?

**Q Sustainability**

What are the sustainable modes of transport for Mussafah?

**Q Implementation**

How can these modes be implemented?

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# Solutions: Objectives

- Estidama;
- Promote sustainable modes of transport;
- Improve accessibility Mussafah;
- Better environments and safety for pedestrians, cyclists and all road users;
- Improve permeability of the waterside areas;
- Urban Straat + Public Realm Design Manual.

# Solutions: UAE + City-wide Connection

| UAE-wide | Abu Dhabi-wide |
|---|---|
| • Union rail and highways<br>• Freight and train for goods | • Connect Mussafah to other parts of the city<br>• Integrated transport network |

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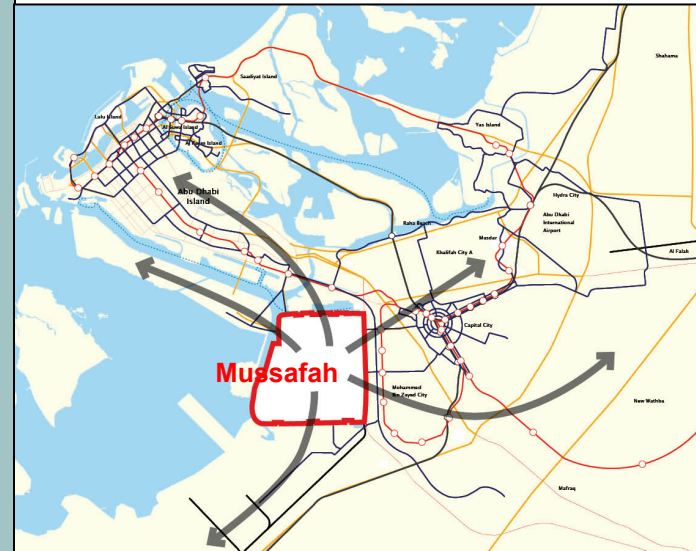
# Solutions: Districts + Sites Connection



Relieve congestion

Careful control of road directions & hierarchy

Legible street pattern with way finding system

New link with existing & new development in the future

**Mussafah**

Integrate with road & metro/tram network

National network: roads and rails

Multi-modal public transport

Water taxi route

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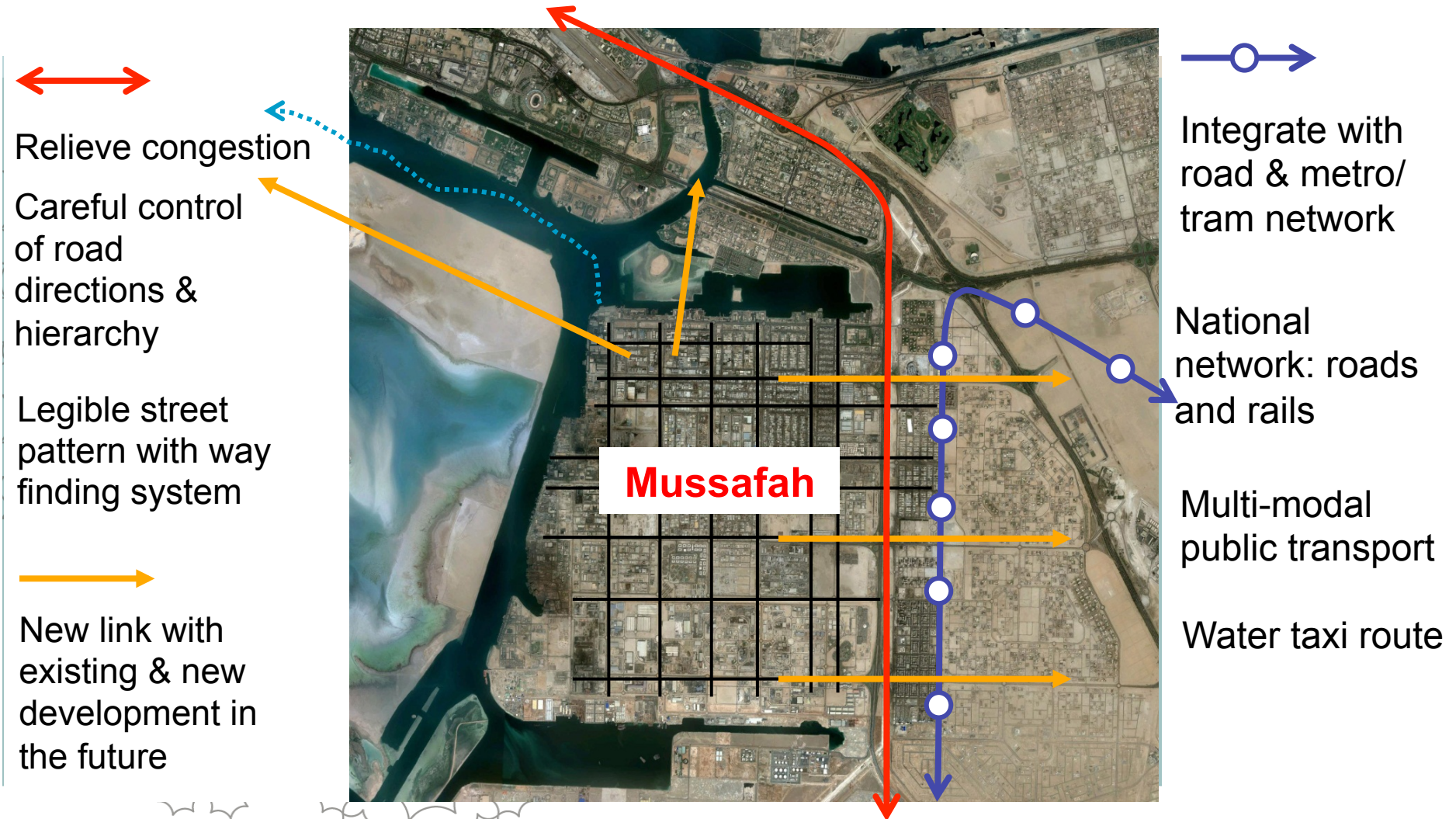
# Modes of Connections

**People**

+ Pedestrians
+ Cyclists

**Public Transport**

+ Bus/ Shuttle
+ Tram
+ Metro
+ Train
+ Water Taxi
+ Shared Car

**Private Transport**

+ Car
+ Industrial (Lighter)
+ Industrial (Heavier)

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27

# People Connection: Concept
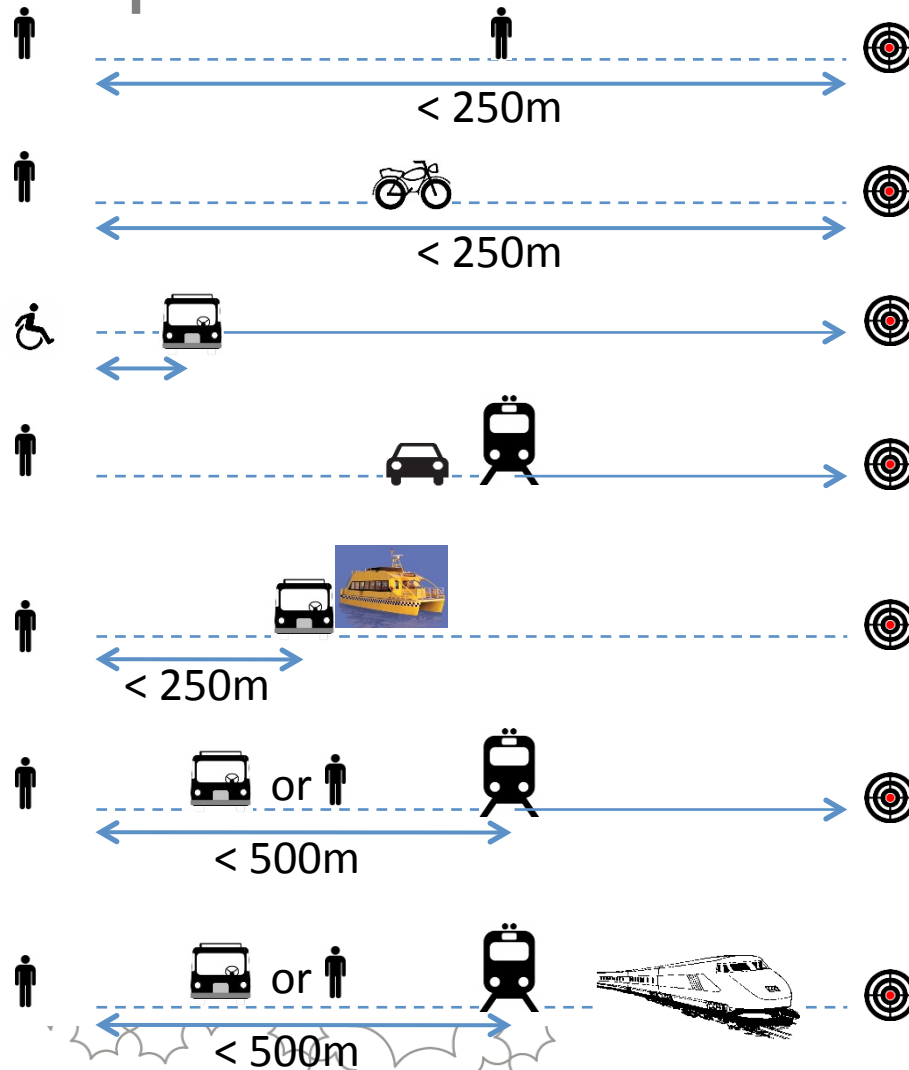


- Promote short distance walk/ cycle

- Urban form and street design easy to navigate

- Mobility for everyone

- Enhance potential of walk/ cycle to bus/ tram stops

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# People Connection: District Scale



- Clear street pattern for ease of navigation
- Accessible waterfront
- View corridors
- Promote integrated transport



Legend:
- Central Point
- Tram Lines
- Bus Lines
- Metro Line
- green Corridor
- bike sharing point
- car sharing point
- disabled access
- view point

# People Connection: Site Scale



- 1km x 1km block

- Walkable neighbourhoods (less than 250m)

- Improved pedestrian environments, eg, shading

- Residential roads for parking & car sharing points

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# People Connection: Site Scale
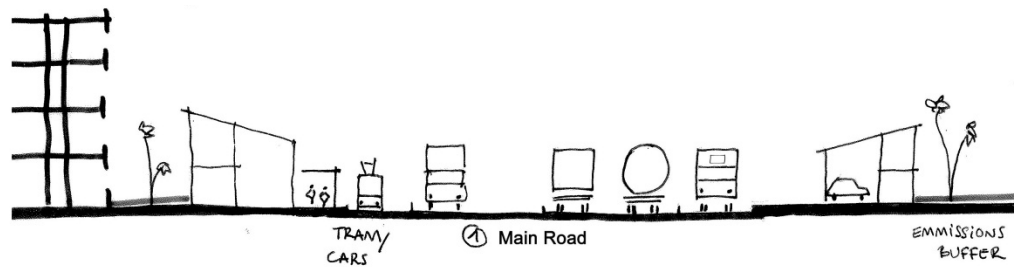


- USDM
- Design to improve accessibility and shading
- Street section to connect walking and public transport
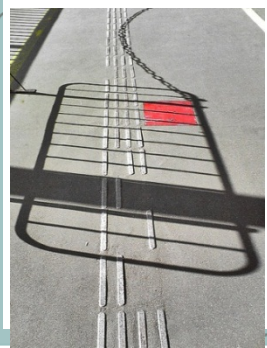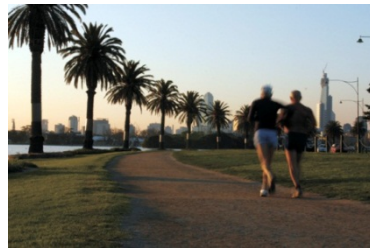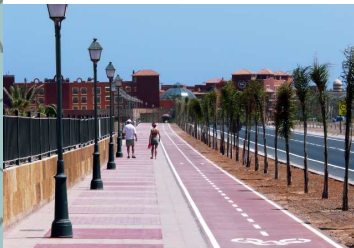
# Public Transport: Concept
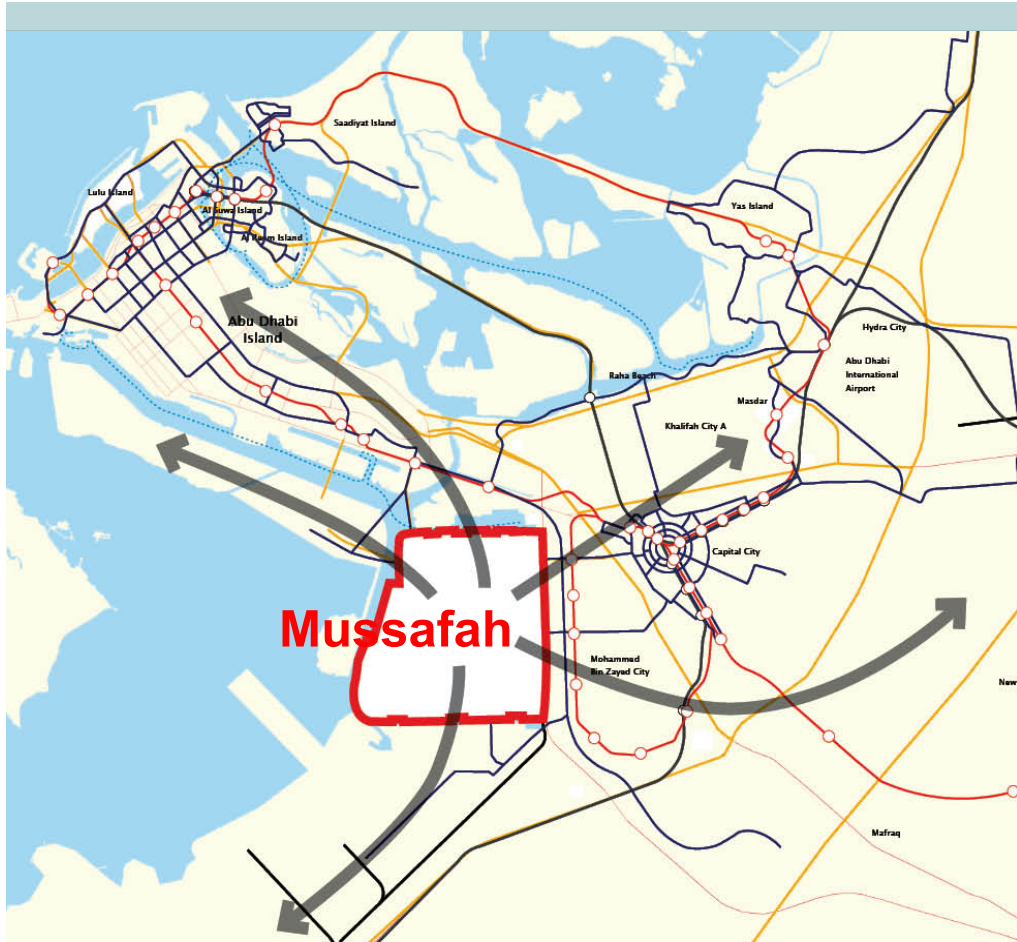


- City/ district/ site scale connections

- Different modes

- Different speeds

- Inter-changable

# Public Transport: City-wide Connection



- High integration amongst different modes of public transport

- Eg. Trams/ buses from Mussafah connect to Metro and wider network

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# Public Transport: District Scale



- Connection to the wider public transport network
- Trams as higher speed option
- Bus services to cover local areas, stops to be within walking distance
- Free shuttle services to connect local amenities
- Water taxi

Image © 2011 GeoEye

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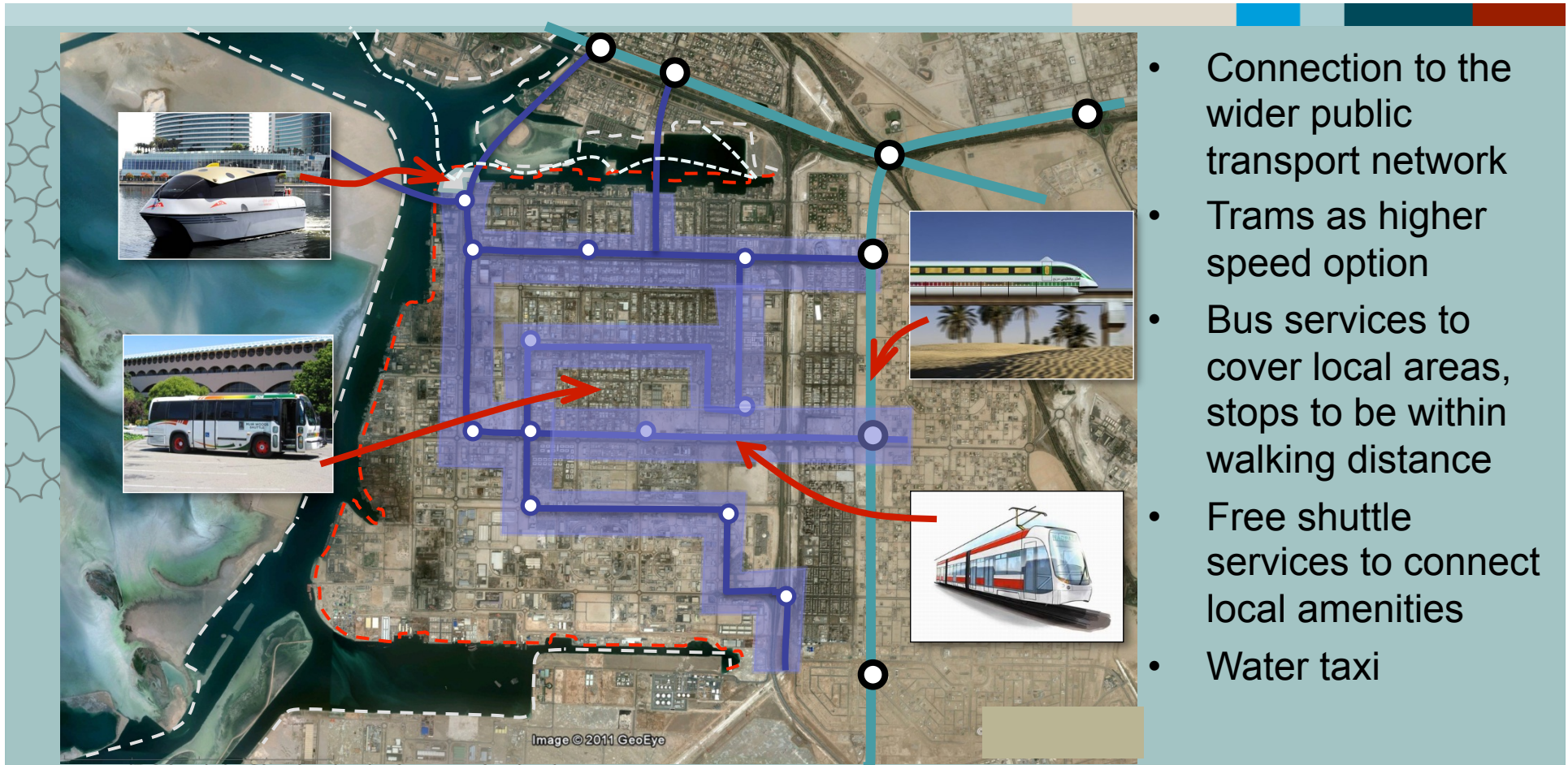
# Private Traffic: Concept

**Domestic-dominant**
**(Avenue)**

**Industrial-dominant**
**(Boulevard)**
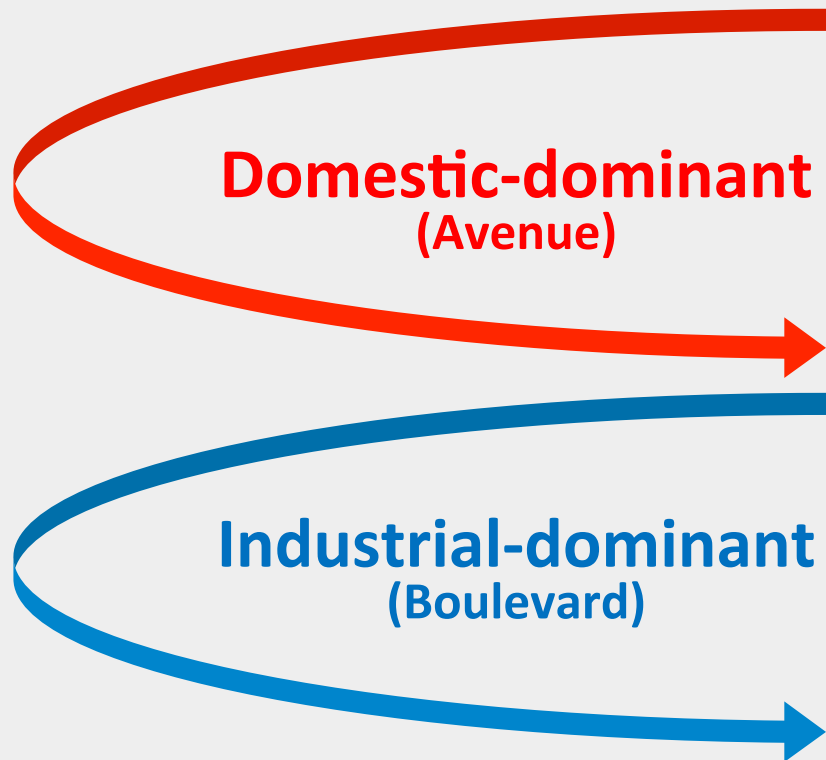
- Road users:
  - Domestic cars
  - Industrial (Lighter)
  - Industrial (Heavier)

- Two loops which work with land uses to mitigate impacts

- Control of road directions & hierarchy

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# Private Traffic: Road Hierarchy



Domestic Dominant

Industrial Dominant

Image © 2011 GeoEye
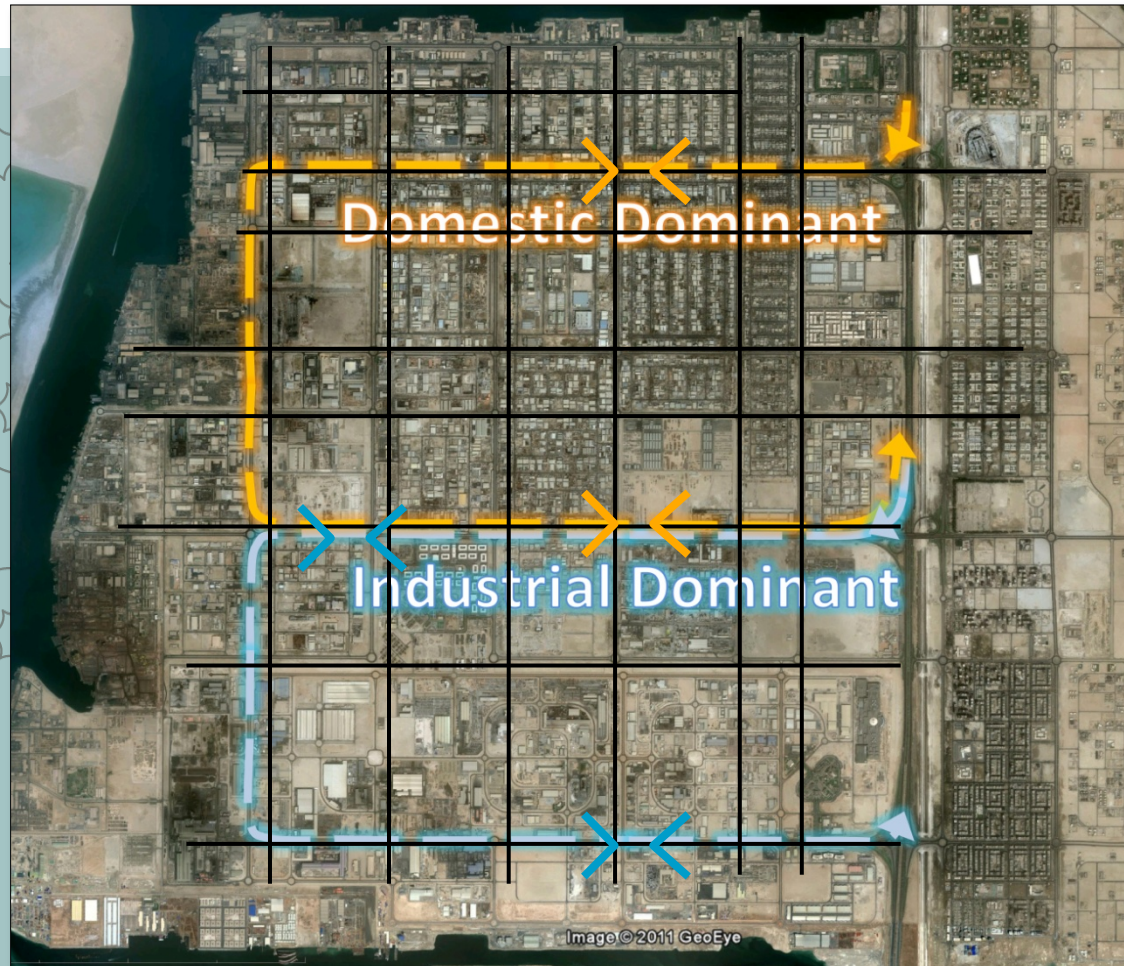
- Two loops with in/out only access points

- Hierarchy roads:
- Loop roads
- Secondary roads
- Local roads

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36

# Private Traffic: Road Hierarchy



Cross Section AA

Waterside    ④ Pedestrian corridor    ② Residential road Parking    ① Main Road

Cross Section BB
Industrial Heritage

② Residential road    ⑤ Pedestrian corridor    Canal

Cross Section CC
along mixed zone

TRAM CARS    ① Main Road    EMMISSIONS BUFFER    ③ Pedestrian corridor



A
B
C

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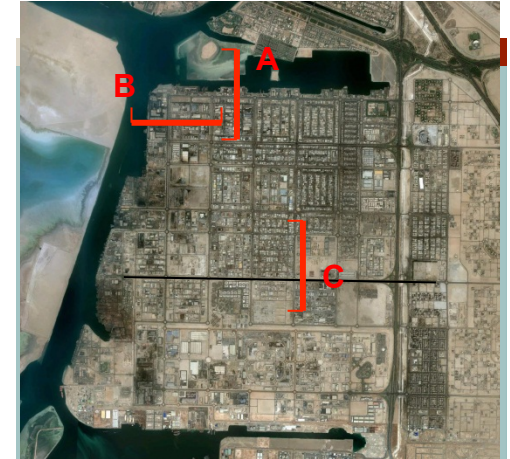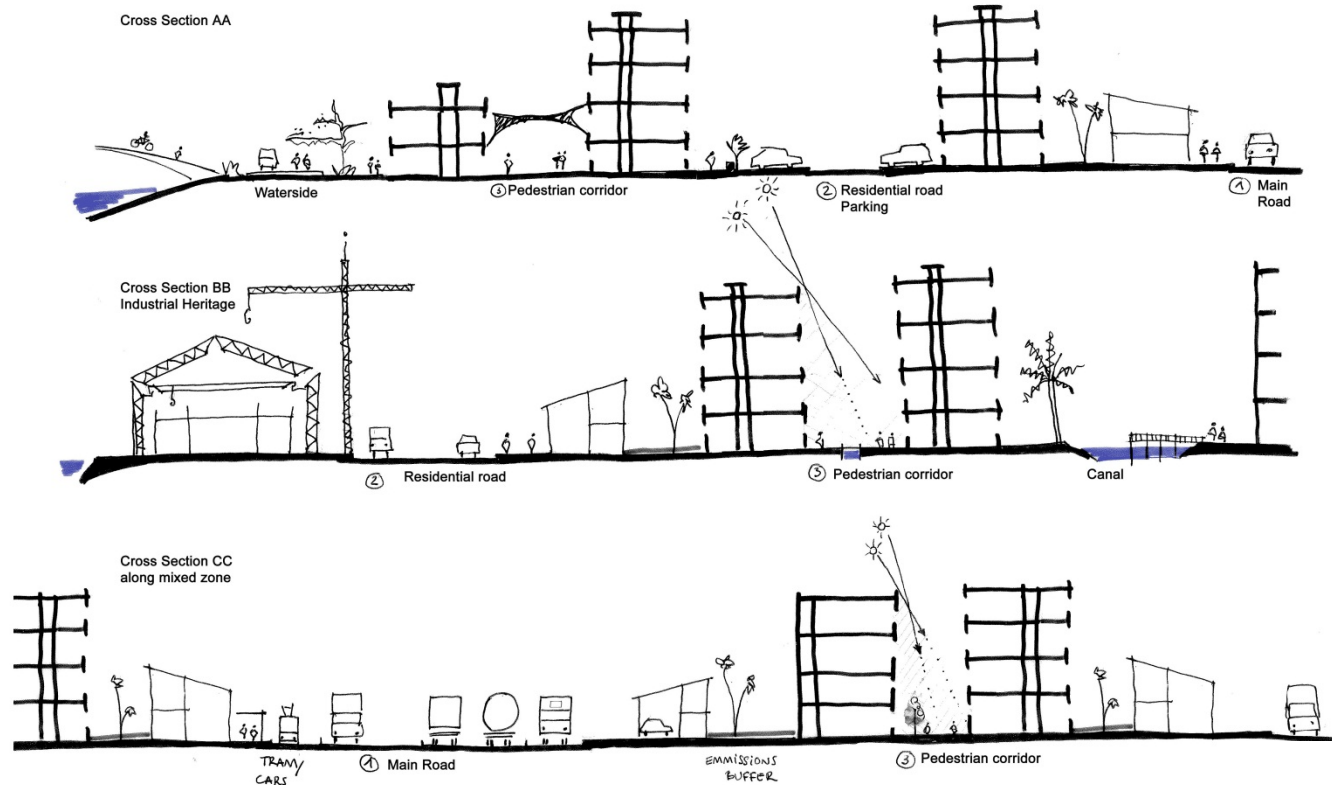
# Group B Morphology and Activities

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Mohamed Al Ameri

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Mira Milakovic

Omar Al Suwaidi

Peter Vanden Abeele

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رؤية Vision

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# Musaffah 2030

Group B

Morphology and Activities

# Introduction

- **Task  Revitalized industrial area;**

- **Morphology;**

- **Typology;**

- **Activities;**

# Goals

- **Estidama principles;**

- **Vernacular architecture;**

- **Evolutive structures;**

- **Affordable housing.**

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# Existing morphology
## As basis for new development
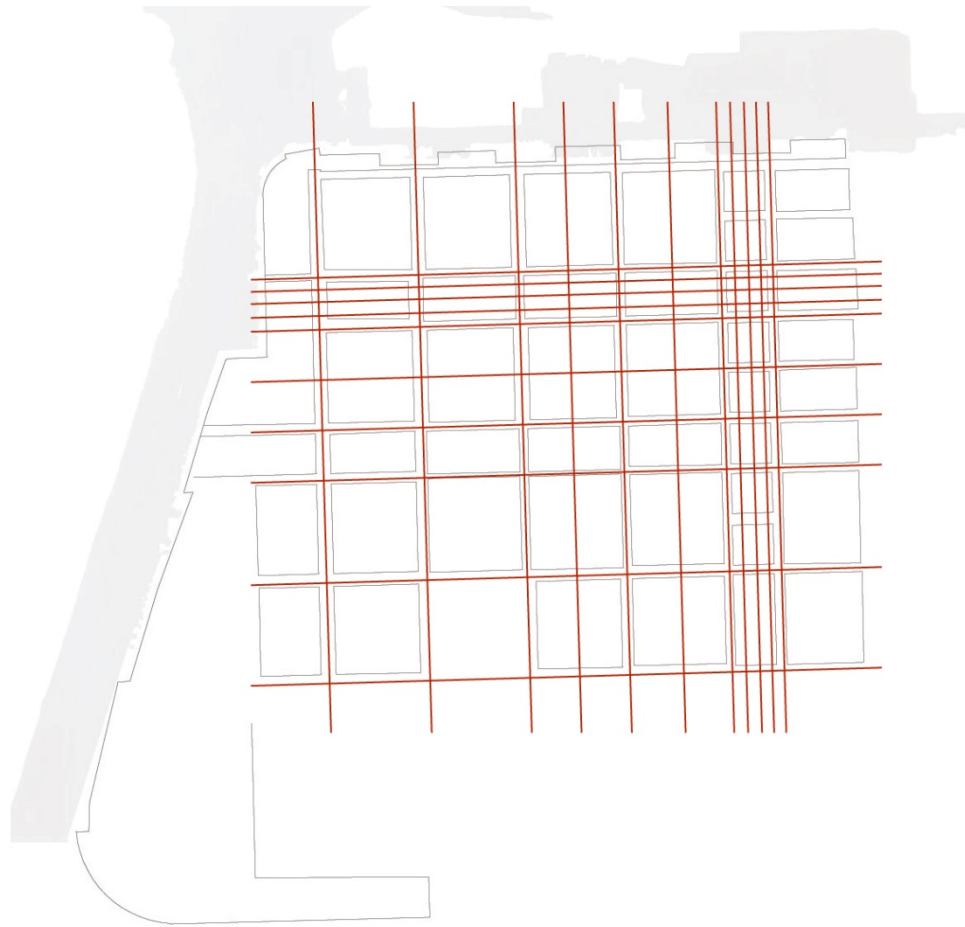
# Transformation process
## phases of intervention
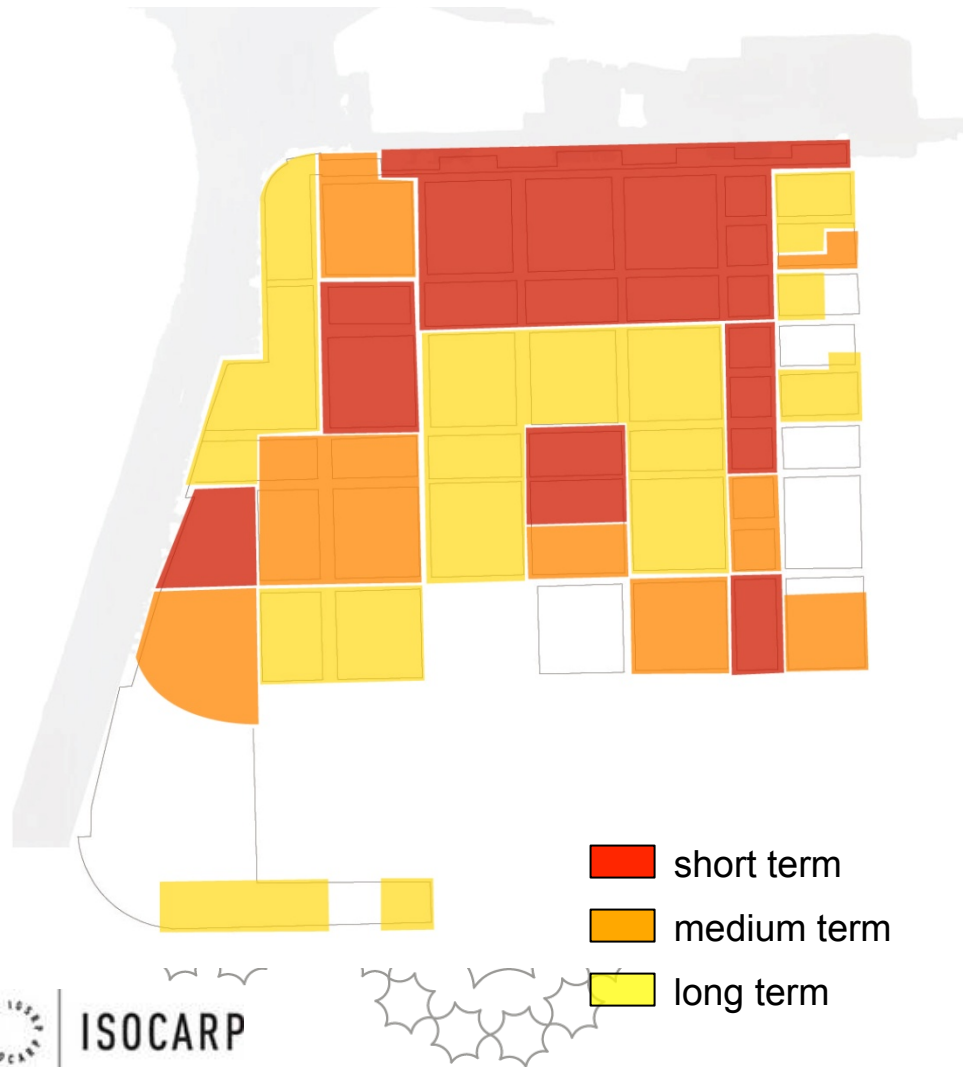


2 concepts:

1/ the lease expire date for short term development

2/ Mussafah Masterplan for long term development

short term

medium term

long term

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# Proposed intervention
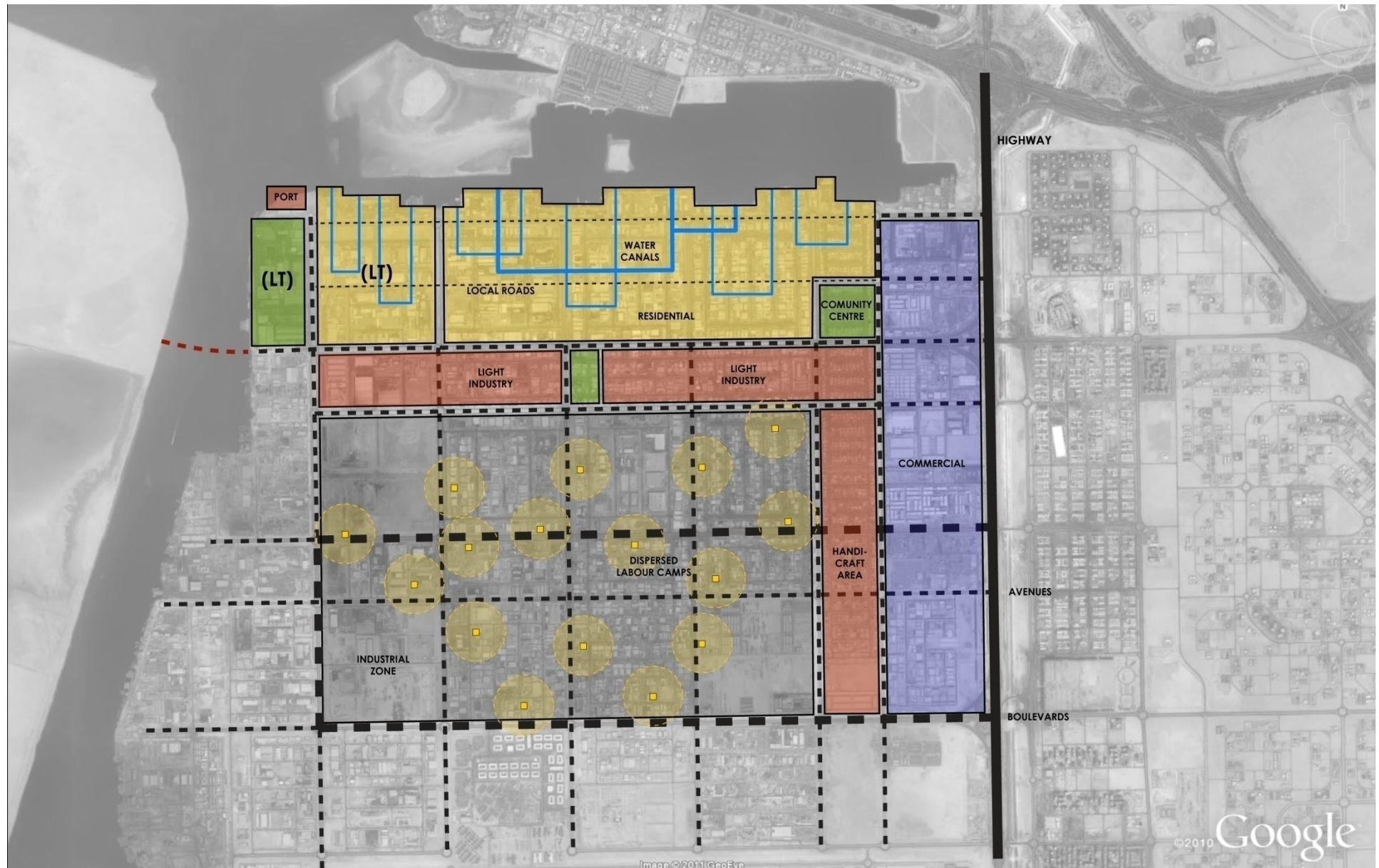
# Typology concepts
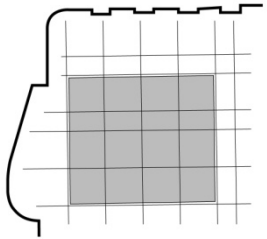
**district** _ medium/extra large scale _ industrial area (light+heavy)
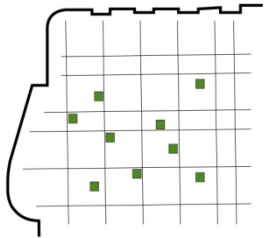
**dots** _ small scale _ labor residences
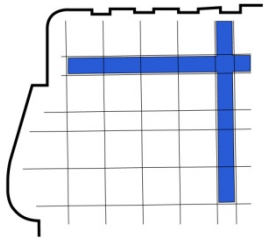
**strips** _ small/middle scale _ light industry/handycraft
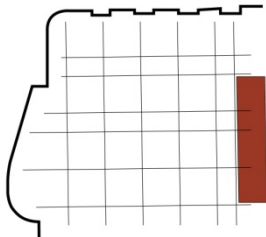
**edge** _ large scale _ commercial area (car showrooms, commercial walls, large retail, hotel, drive in…)
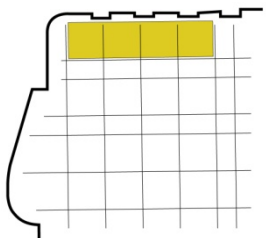
**patch** _ extra large scale _ residential area (low to medium income)

46

# 1 District



- Redesigning the industrial fabric
- Improving landscape quality

# District





LIGHT INDUSTRY
STORAGE, PRODUCTION

LARGE PLOT
max: 250 x 250m

OPEN SPACE:
PARKING, STORAGE

20 m

SMALL PLOT
min: 50 x 50m

LANDSCAPE STRIP
XERI-SCAPING : SHADE
STORMWATER STORAGE

10 m

TRUCK ENTRANCE
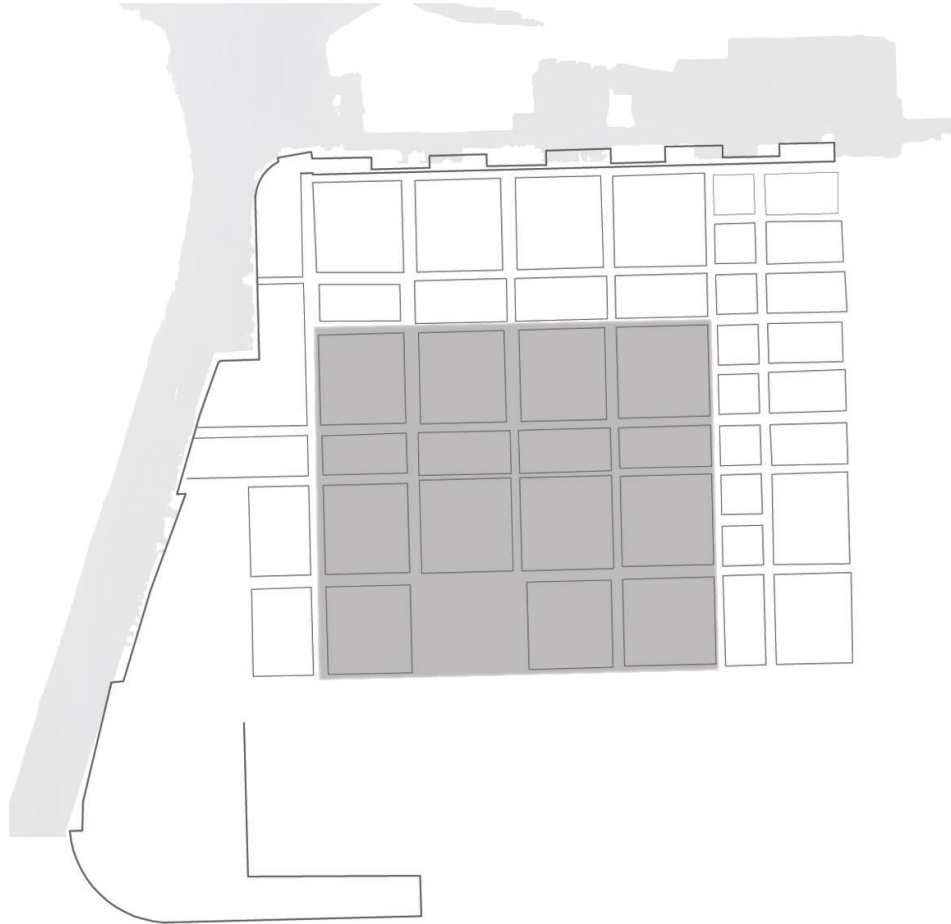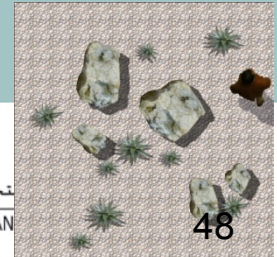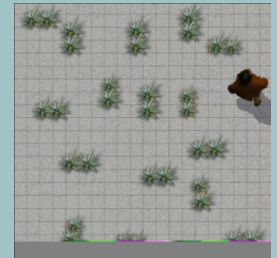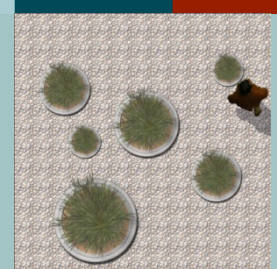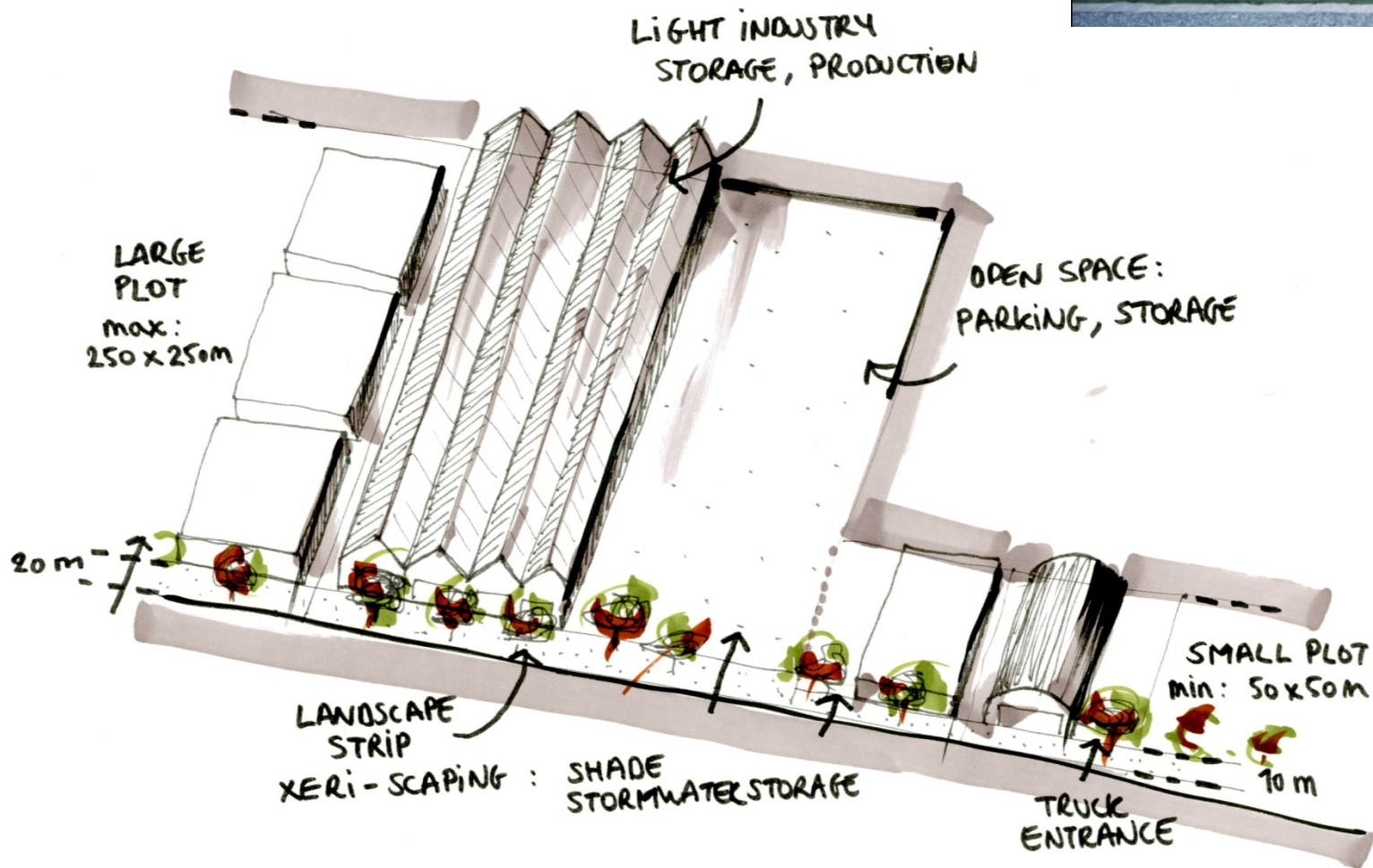


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48

# 2 Dots

- Introduce labour residences dispersed in the area

Brief residential program:

_ rooms for 150 people
_ basic facilities /kitchen, sanitary, recreation
_ courtyard model
_ free open space
_ community center / mosque
_ pedestrian radius 500m

49

# 2 Dots



GALLERY BUILDING WITH
SINGLE PERSON ROOMS
+ SANITARY UNITS EACH FLOOR

SHADED
COURTYARD

4 FLOORS

GROUND FLOOR WITH
BASIC FACILITIES:
KITCHEN, ENTERTAINMENT

50m

50m

OPEN SPACE FOR
SPORT, MARKET, GARDEN
(MEDIUM NODE)





50
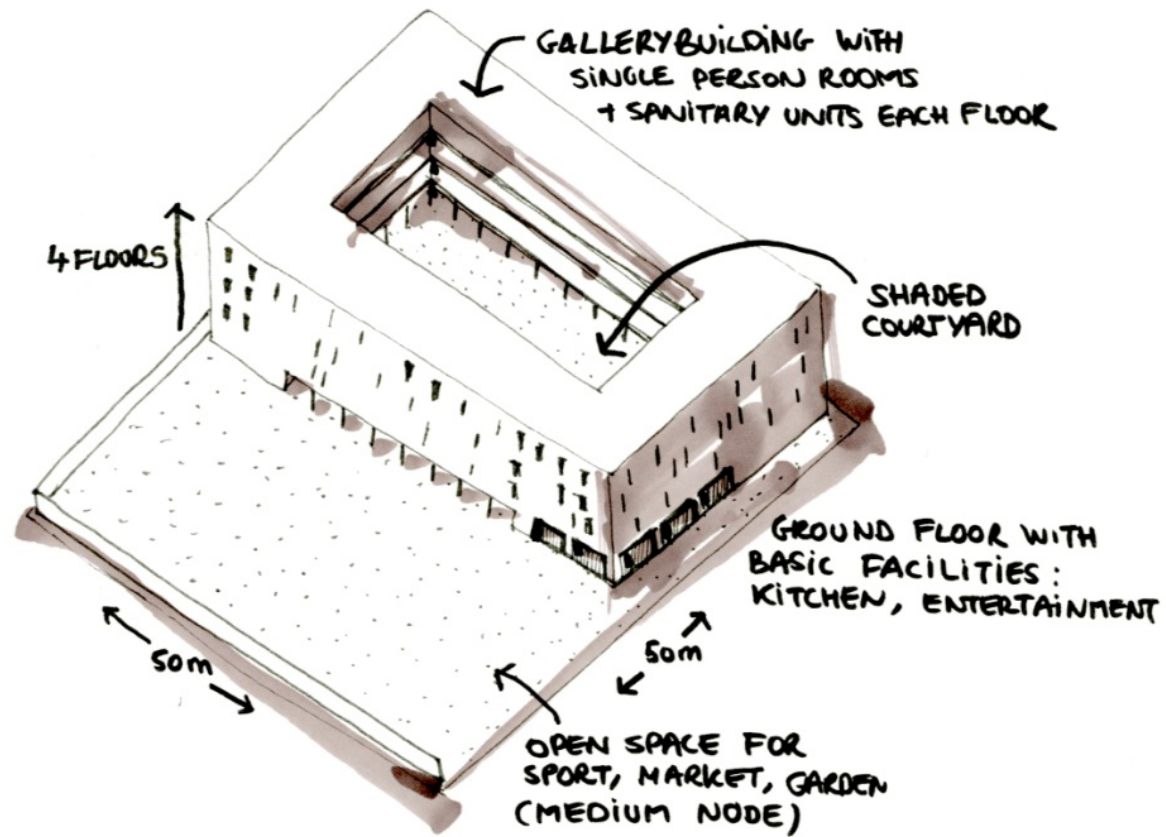
# 3 Strips

- Transition mixed use zone



Brief description:

_mix of small scale functions: light industry, handycraft, workshops, atelier, shops…

_ re-use of existing fabric and buildings

_ organic growth/development

_ community center / main square with market, mosque, bus station

# 3 Strips

## Model 1, workshops









PLOT 1   PLOT 2   PLOT 3   PLOT 4

MAX 50 M

2 FLOORS↑

±20 M

BUILDING: WORKSHOP, OFFICE, SHOP, RESIDENCE,...

OPEN SPACE: PARKING, WORKING, ENTRANCE

FREE DEVELOPMENT OF PLOT

FIXED INFRASTRUCTURE= BASIC BUILDING + ROOF

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# 3 Strips

## Model 2, shelter



ROOF OF FORMER INDUSTRIAL
BUILDING = SHELTER

OPEN SIDES FOR
VENTILATION

SMALL BOXES OR
BUILDINGS FOR
NEW USE

OPEN SPACE



53
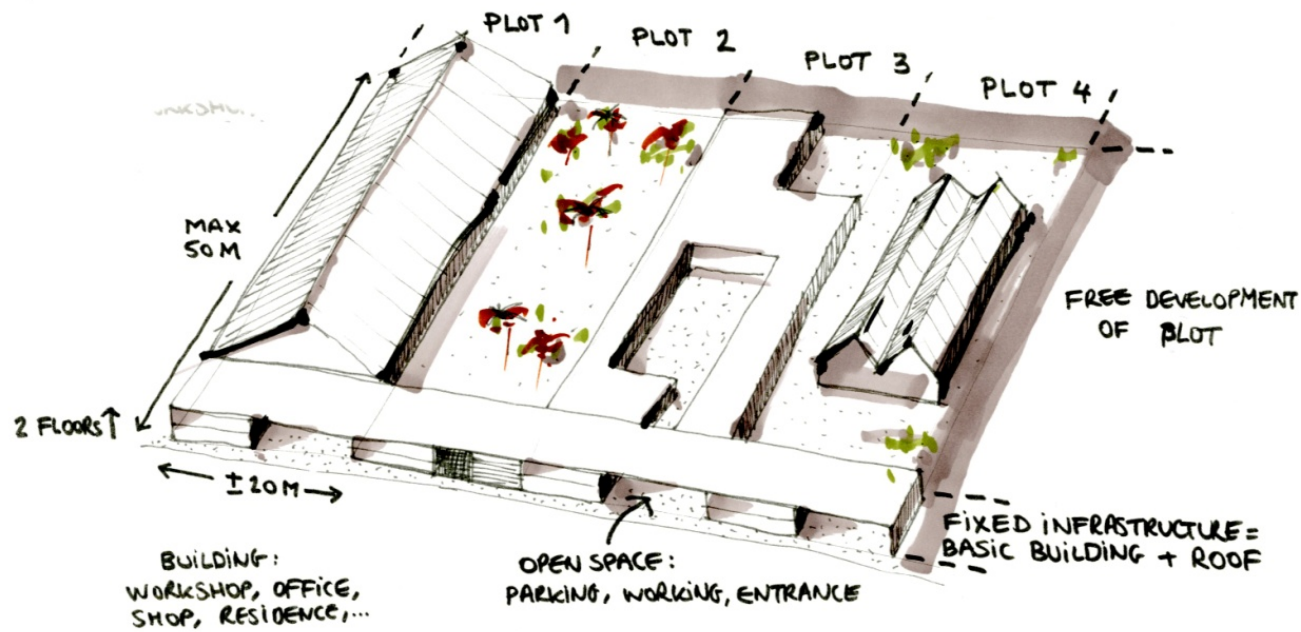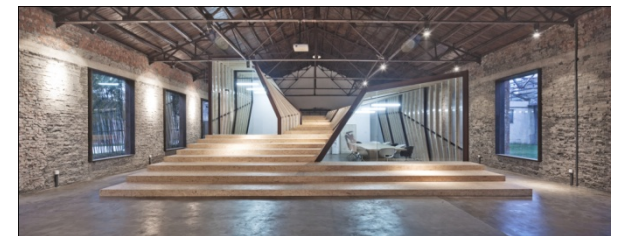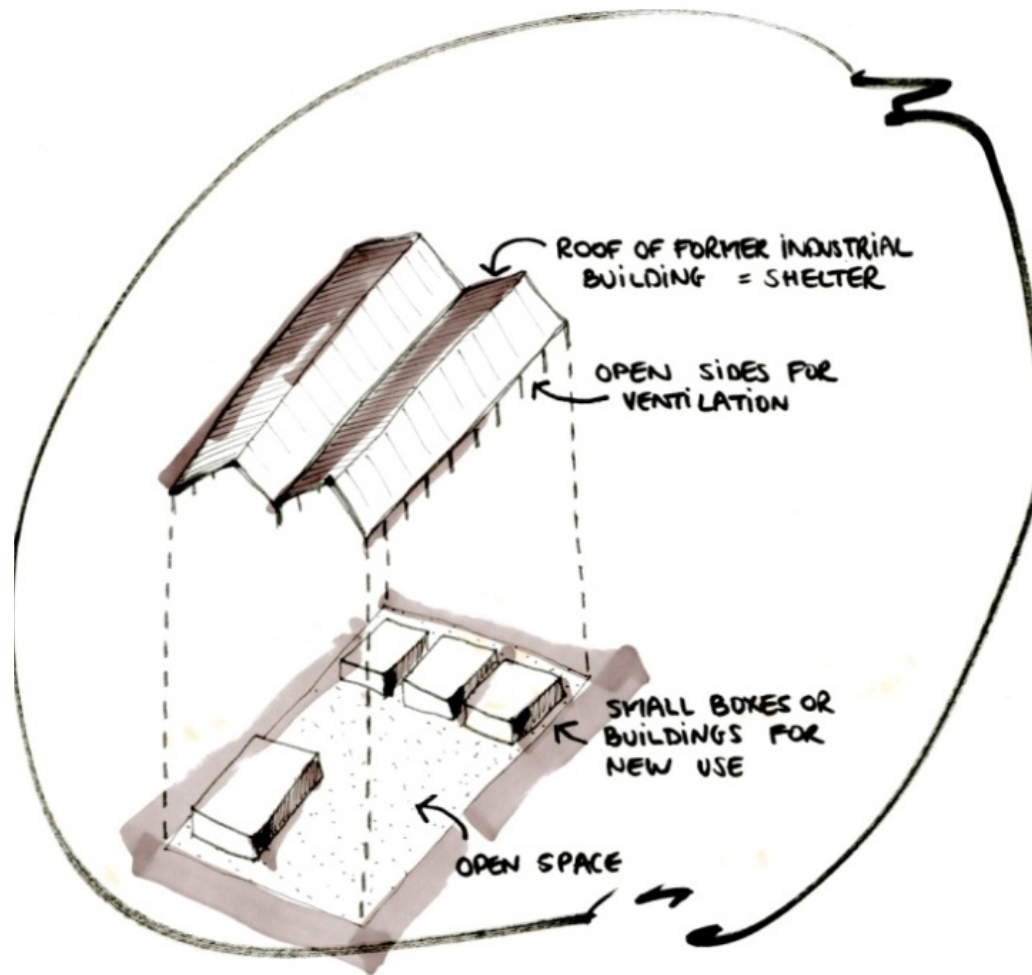
# 4 Edge

- Commercial area with visibility along highway
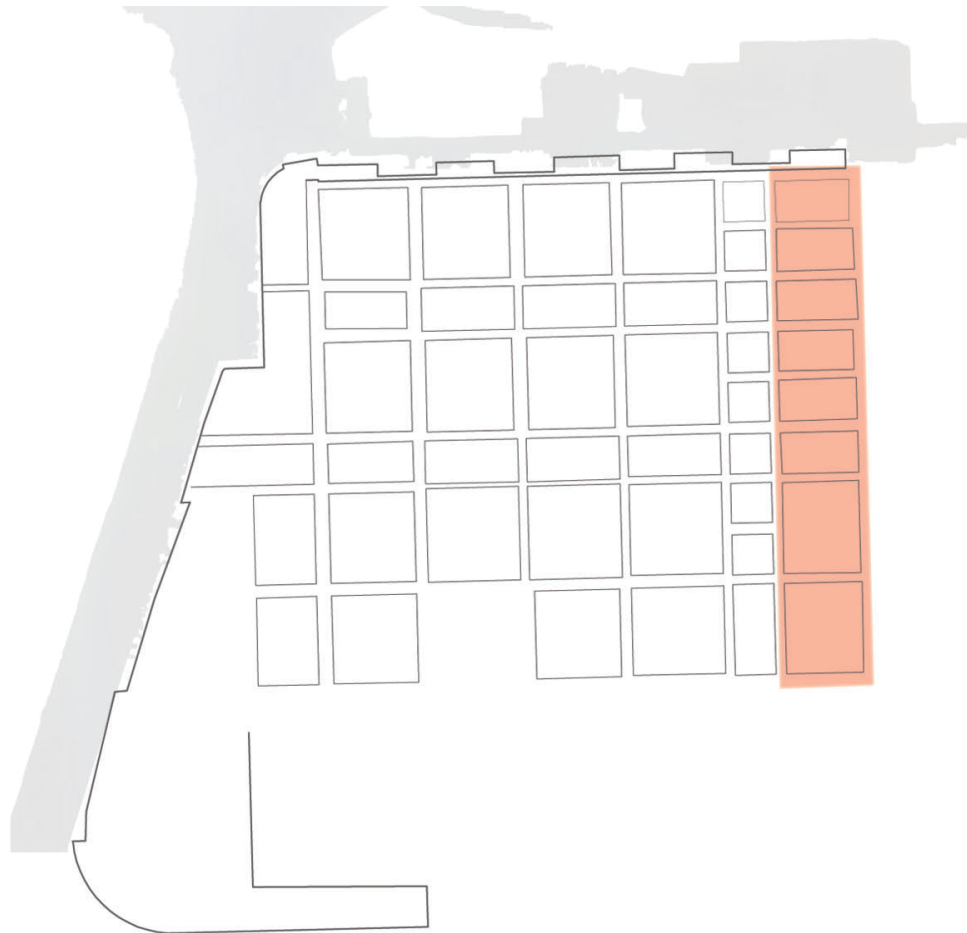


Brief description:

_ mix of small and large scale commercial /car showrooms, furniture, mall, building materials…/

_ billboard location along highway for good visibility and advertising

_ entrance area for Mussafah and the city

# 4 Edge

## Las Vegas strip model
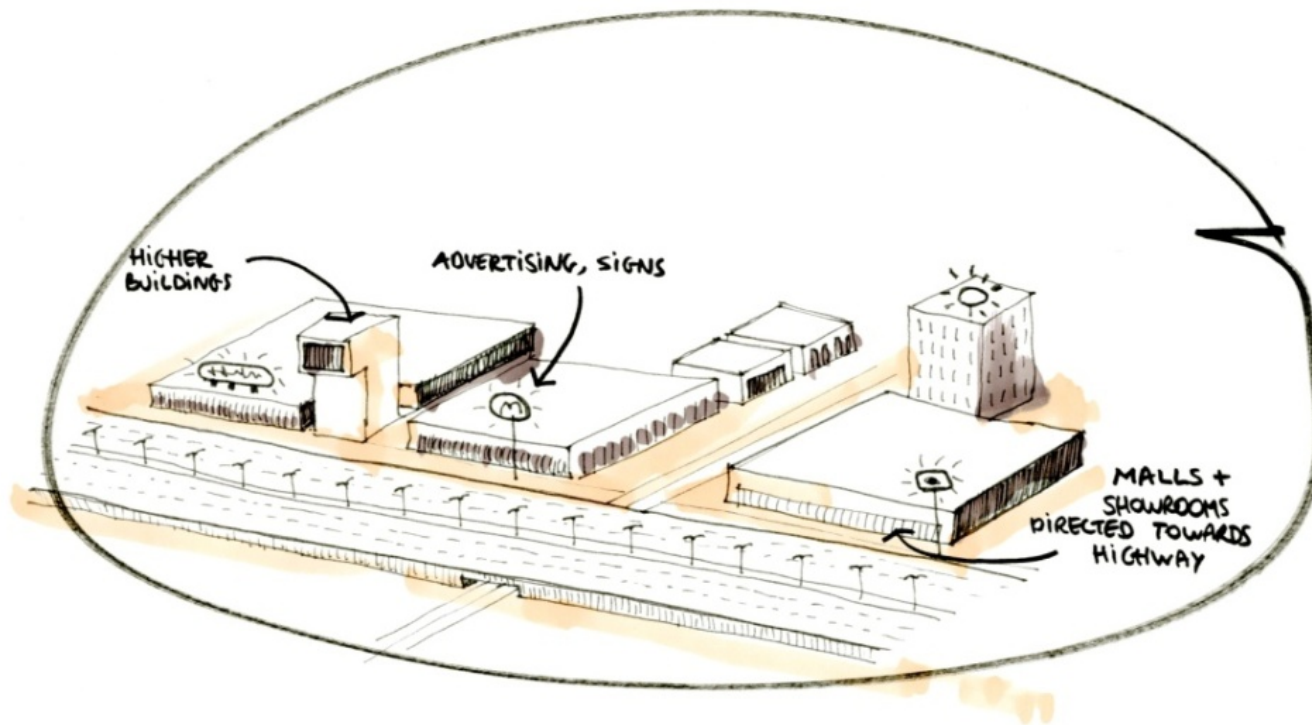
# 5 Patch

- Large scale residential
  neighborhood _ Arabic city



Brief description:

_ adaptation of FREEJ model and
  KASBAH city

_ courtyard houses and apartments

_ central parking road

_ pedestrian walks: shared streets
  and sikkas

_ central public square with mosque

_ public facilities near avenue /
  school, hospital…/

_ local shops and cafes along
  waterfront

_ waterfront view+ canals

_ north-south orientation for wind
  and sun

_ 3 blocks: 80000 people

56

# 5 Patch



RESIDENTIAL BLOCK

1000 m
1000m

WATERFRONT
CANALS
WATER SYSTEM

TRAFFIC SYSTEM

500 m
500 m
P P P
P P P
CENTRAL STREET
+ SHARED STREETS

OPEN VIEWS
N
COOLING WINDS
W
E
S
ESTIDAMA: WIND-SUN

PEDESTRIAN SYSTEM

WATERFRONT
SQUARES
+ SIKKA NETWORK

16-20
25 x 50
OR
35 x 35
3 FLOORS AVERAGE    16-20
= ± 1.000.000 m²
FAR = 1
COURTYARD BLOCKS

57
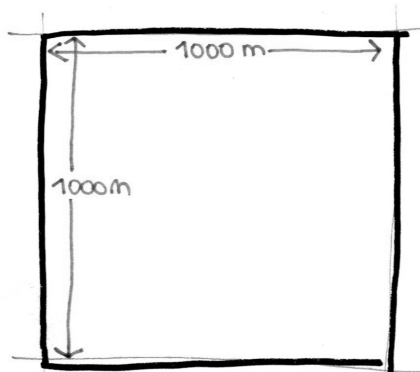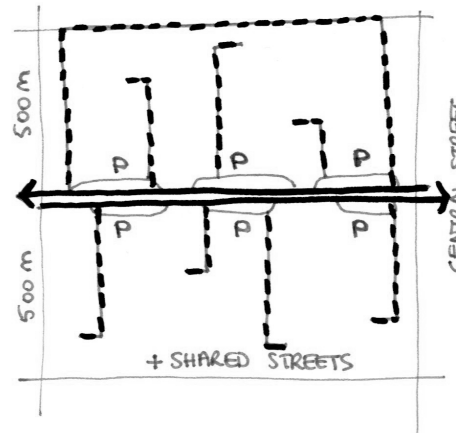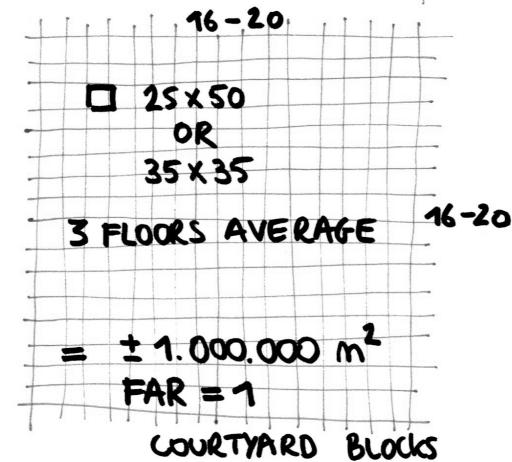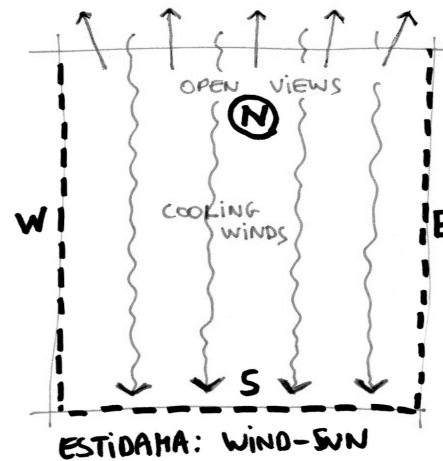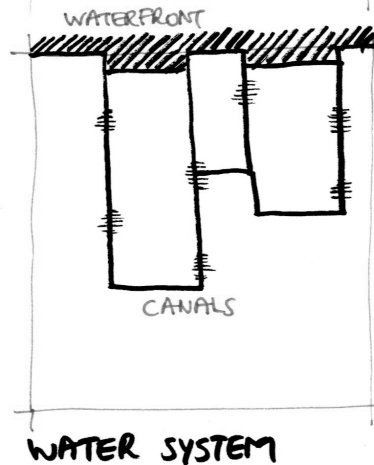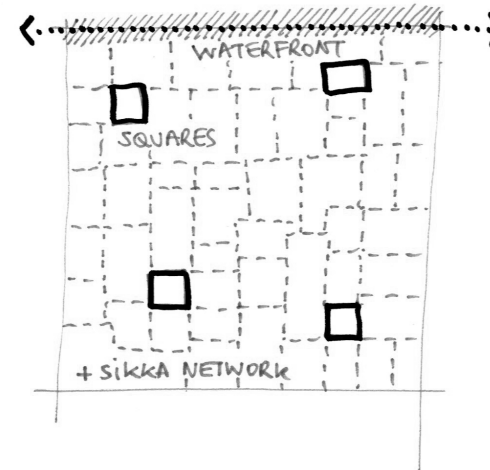
# 5 Patch

## Kasbah / Freej model



SECTION
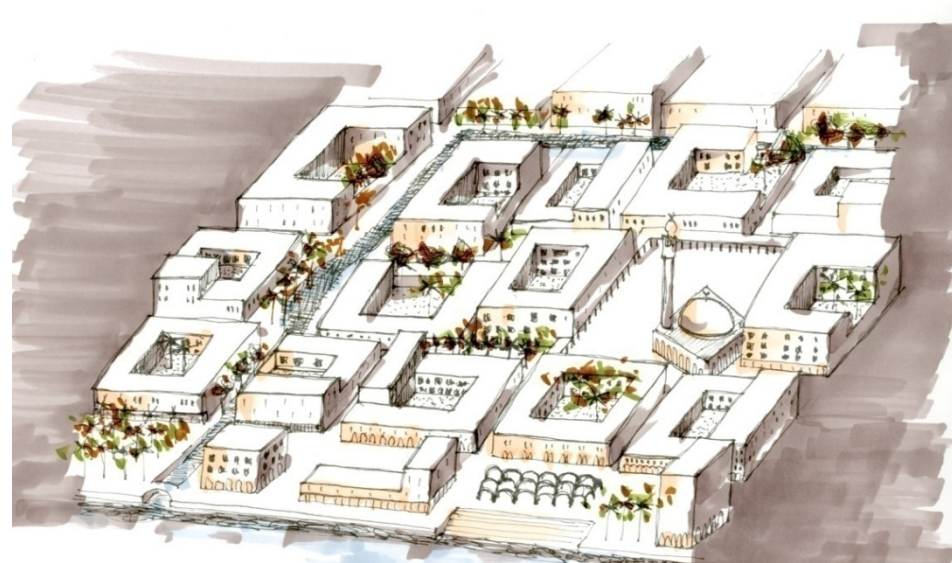
3 | 6 | 6
CANAL

6
SHARED STREET

60
SQUARE

SOUTH – NORTH SECTION
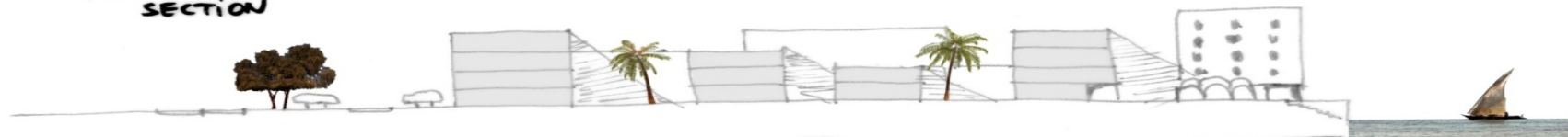
8 | 4 | 5 | 8 | 5
STREET + PARKING

3
SIKKA

20 – 50
PROMENADE

# Group C Social Integration, Identity, Culture

Jaber Al Dharif
Ahmed Al Kuwaiti
Hamdan Al Mulla
Muna Al Shehhi
Thomas Buhler
Madalen Gonzalez Bereziartua

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# Musaffah 2030

Group C

Heritage as a vehicle for social integration

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# Introduction



**What is Mussafah ?**

# Describing the situation of the area

- **Emptiness;**
- **Anonymous;**
- **Out of scale;**
- **Chaotic;**
- **Monofunctional;**
- **Monotonous.**

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# Defining the problem

- emptiness
- anonymous
- out of scale
- chaotic
- monofunctional
- monotonous

→

- lack of identity
- no sense of place
  - *no landmarks*
  - *gigantic scale*
- social disintegration

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# Facing the problem

- Enhance the heritage of the site

  *industrial heritage*
  - lack of identity
  *spontaneous behaviour*
    - no sense of place

  *no landmarks*
- Structuring the space
  *gigantic scale*

  - social disintegration
- Two levels of integration

  *expats / expats*

  *emirati / expats*

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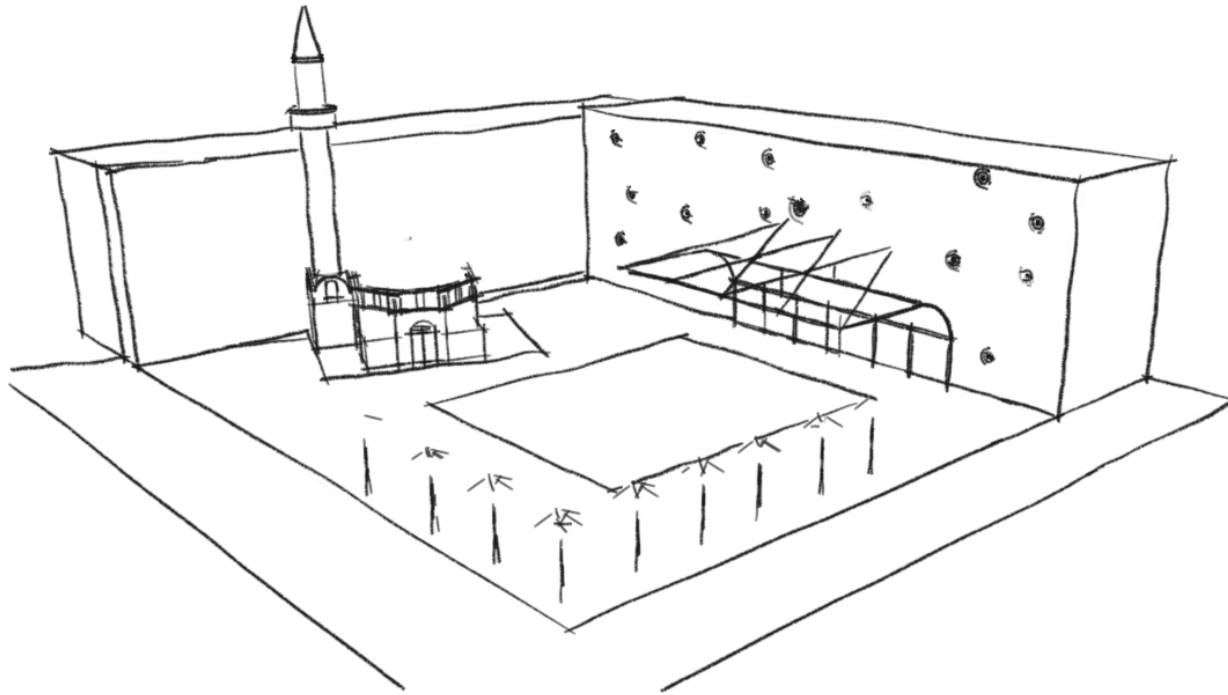ABU DHABI URBAN PLANNING COUNCIL
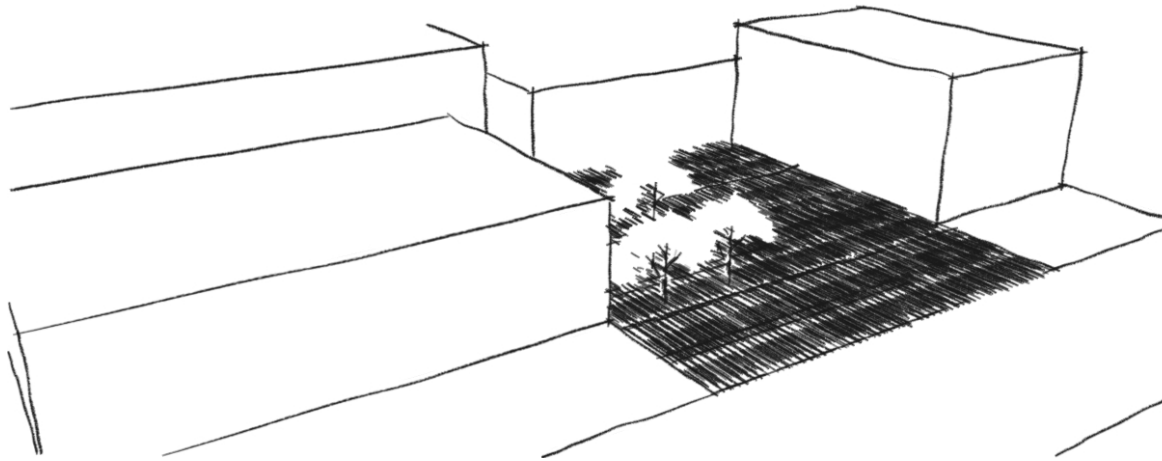
# Strategies

- Dots

- Strip

- Patch
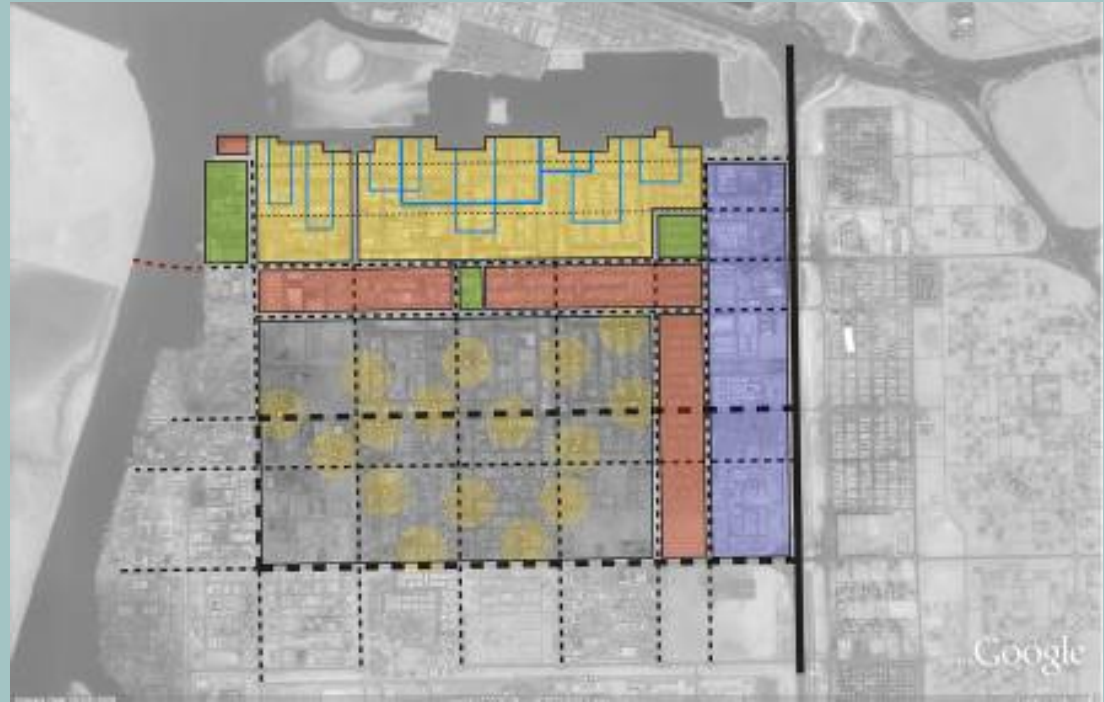
# Large scale
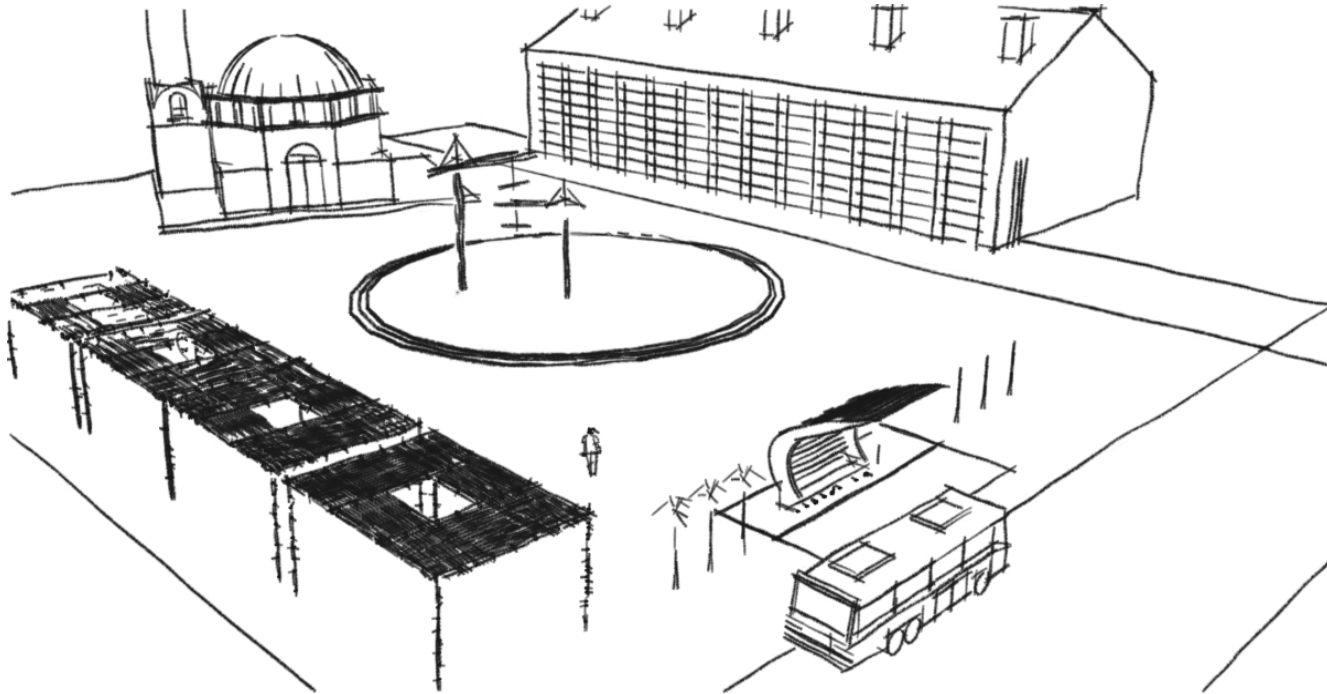


- Mosque

- Market

- Main bus Station

- Community facilities
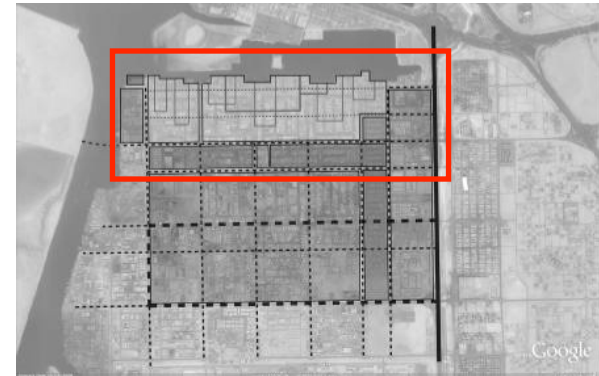
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# Medium scale



- Mosque

- Mixed-use
  open space

- Station

- Labour
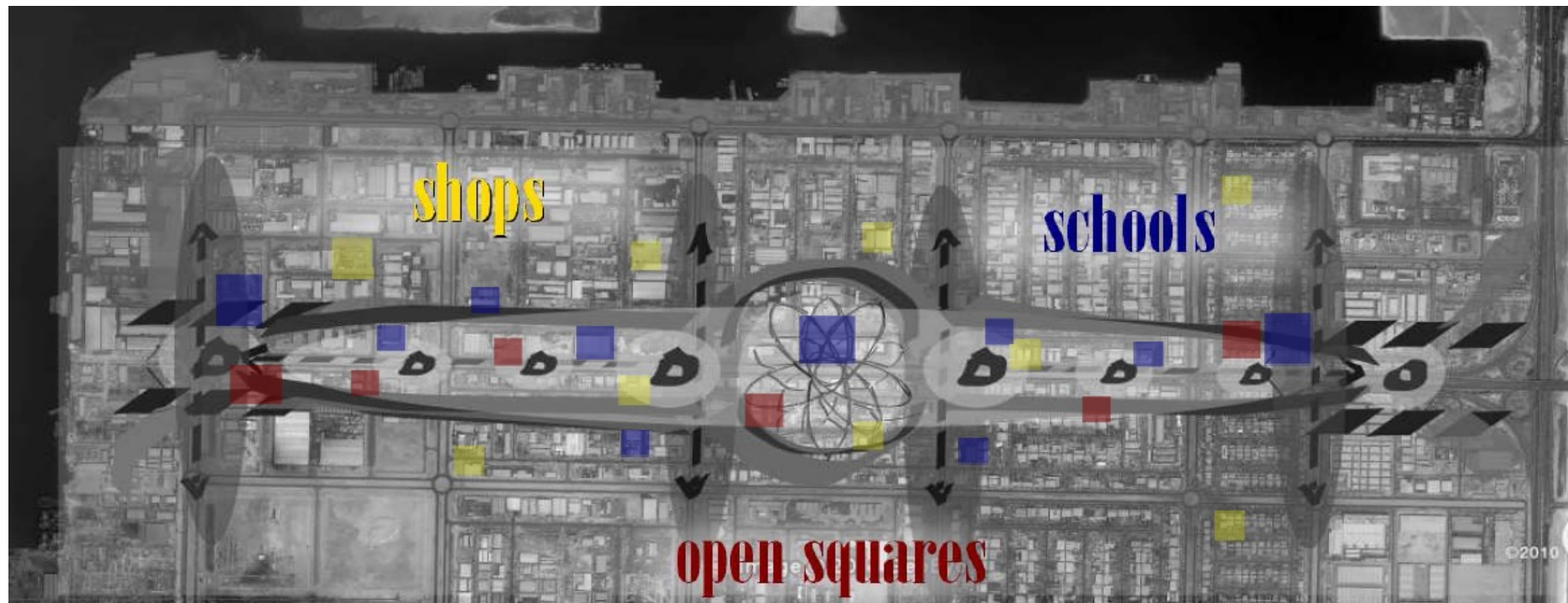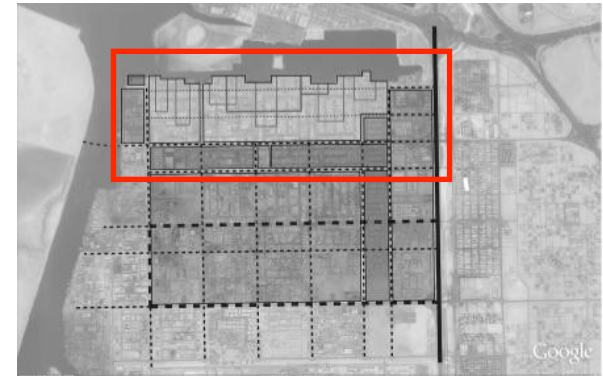  residence

# Small scale



- Left-over empty plot

- Social interactions

- Connection to the pedestrian path

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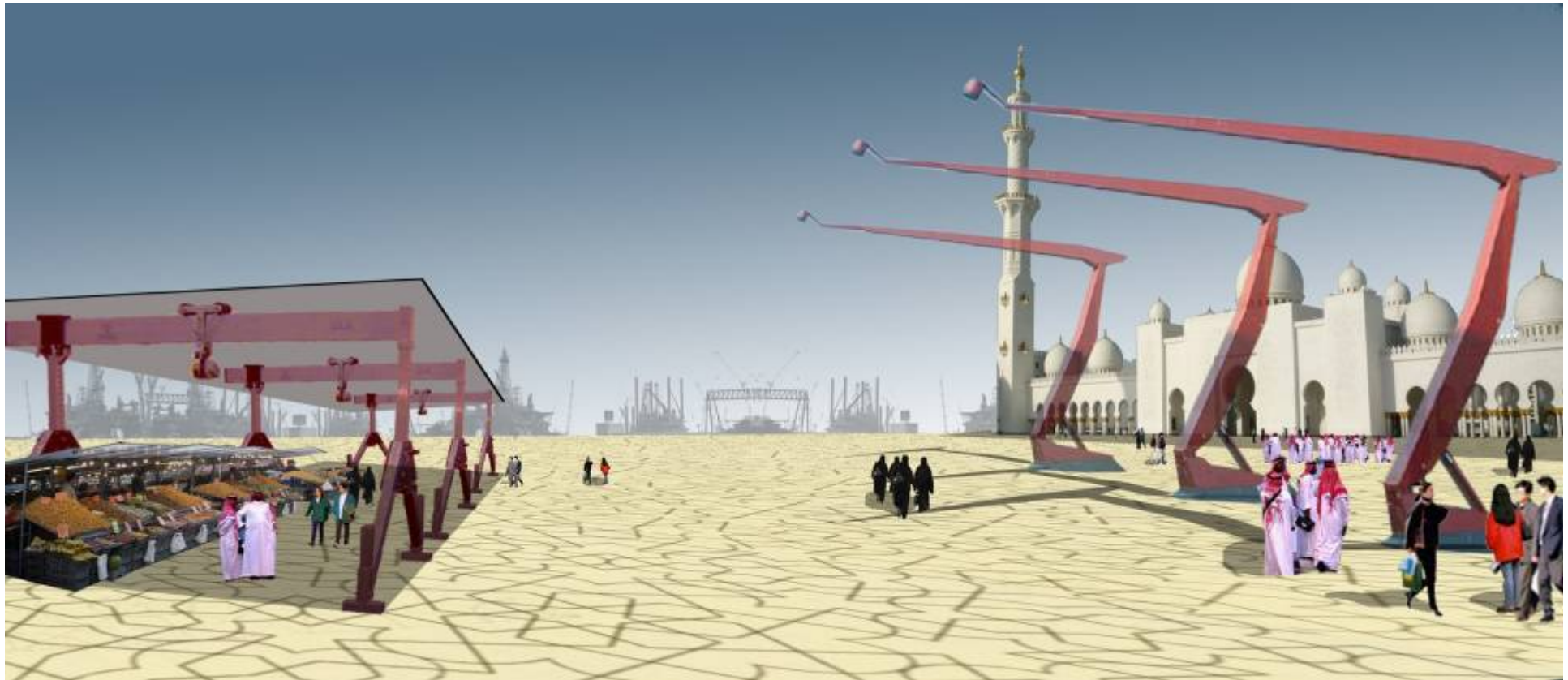مجلس أبوظبـــي للتخطيط العمراني
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# Linear core

# Linear core



shops

schools

open squares

2 km

500 m

# Central square

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72

# Main gate

# Characterizing the street
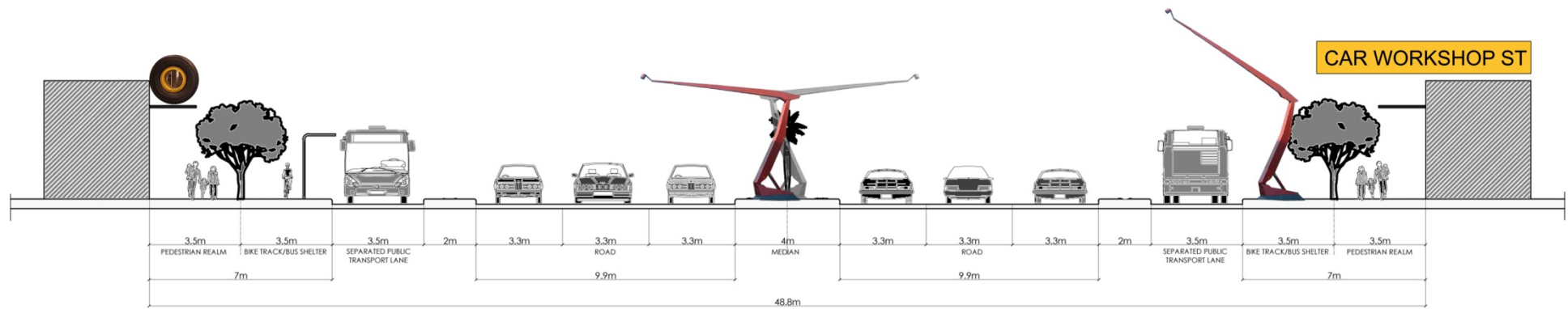
**From industrial textures …**





**… to urban furniture**

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مجلس أبوظبي للتخطيط العمراني
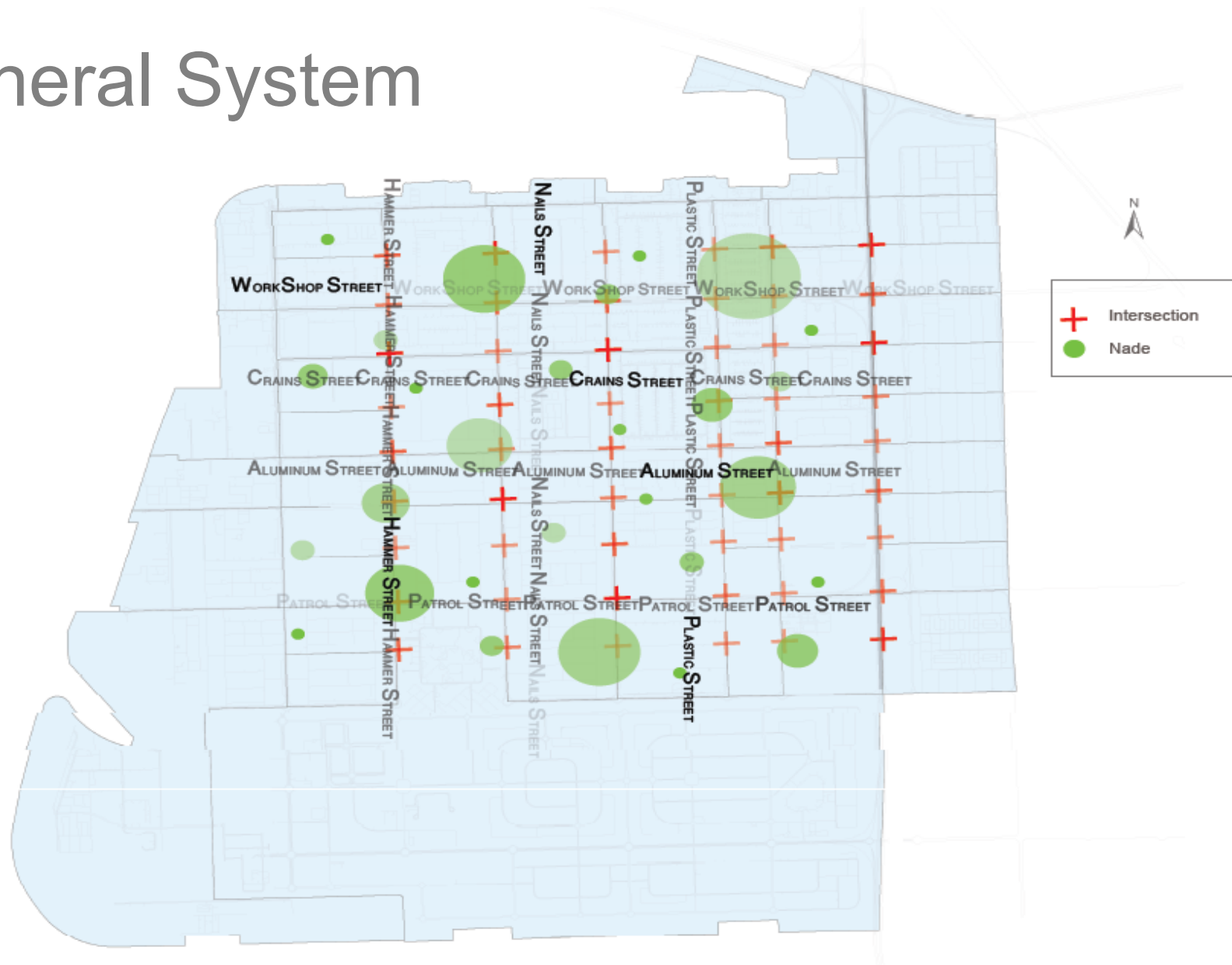ABU DHABI URBAN PLANNING COUNCIL

74

# Cross section





CAR WORKSHOP ST

| 3.5m | 3.5m | 3.5m | 2m | 3.3m | 3.3m | 3.3m | 4m | 3.3m | 3.3m | 3.3m | 2m | 3.5m | 3.5m | 3.5m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEDESTRIAN REALM | BIKE TRACK/BUS SHELTER | SEPARATED PUBLIC TRANSPORT LANE | | | ROAD | | MEDIAN | | ROAD | | | SEPARATED PUBLIC TRANSPORT LANE | BIKE TRACK/BUS SHELTER | PEDESTRIAN REALM |

7m          9.9m          9.9m          7m

48.8m

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# Patch







PLOT 1   PLOT 2   PLOT 3   PLOT 4

MAX 50 M

2 FLOORS

± 20 M

FREE DEVELOPMENT OF PLOT

FIXED INFRASTRUCTURE = BASIC BUILDING + ROOF

BUILDING: WORKSHOP, OFFICE, SHOP, RESIDENCE, ...

OPEN SPACE: PARKING, WORKING, ENTRANCE
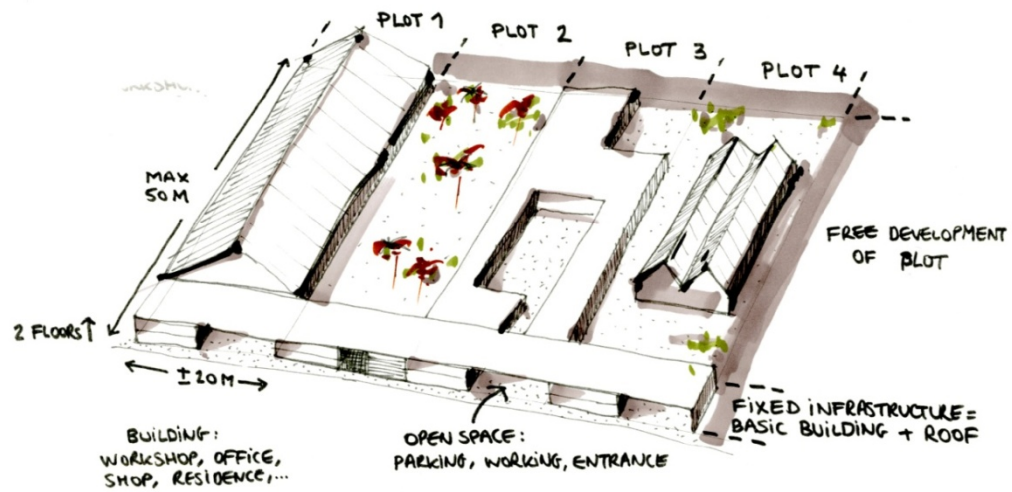
# General System
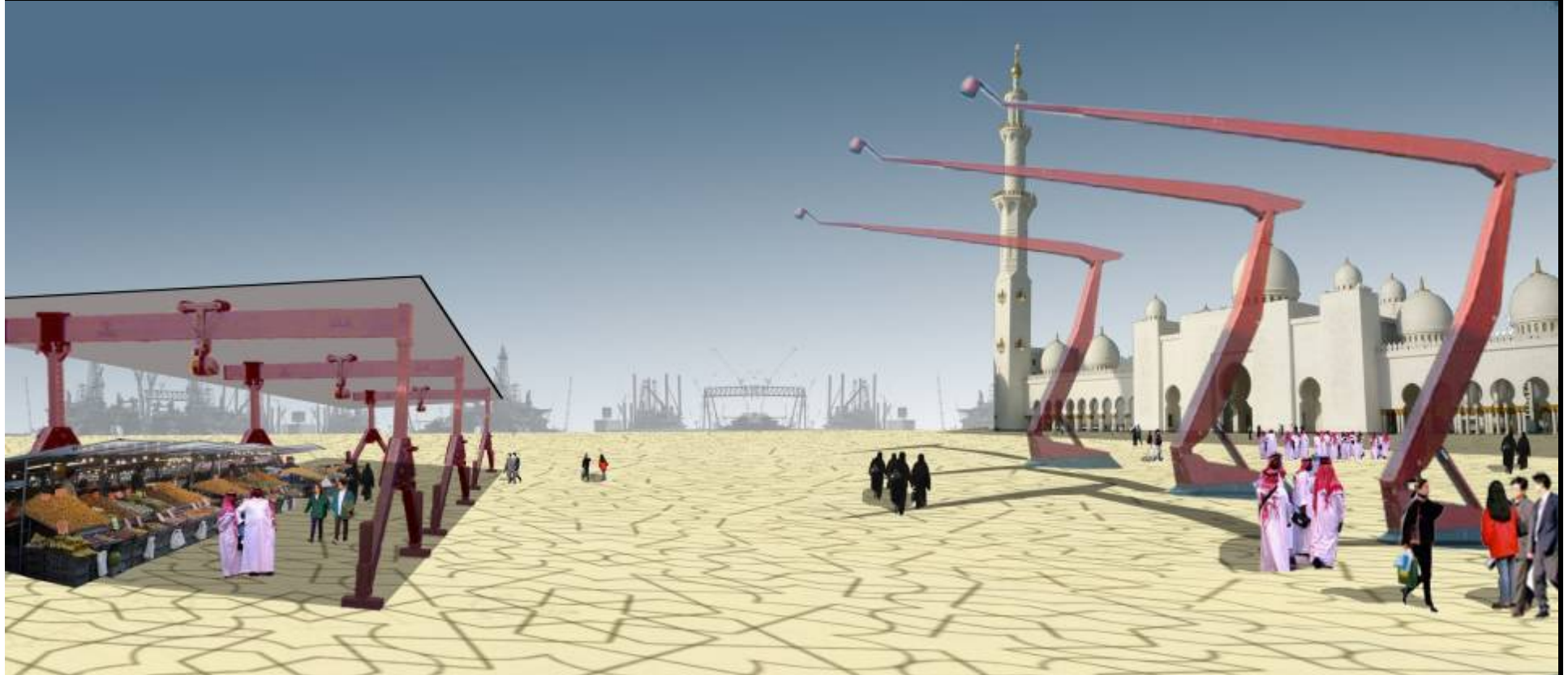
# How do we get there?

- **Organizational structure**

- **Implementation tools**

- **Implementation process**

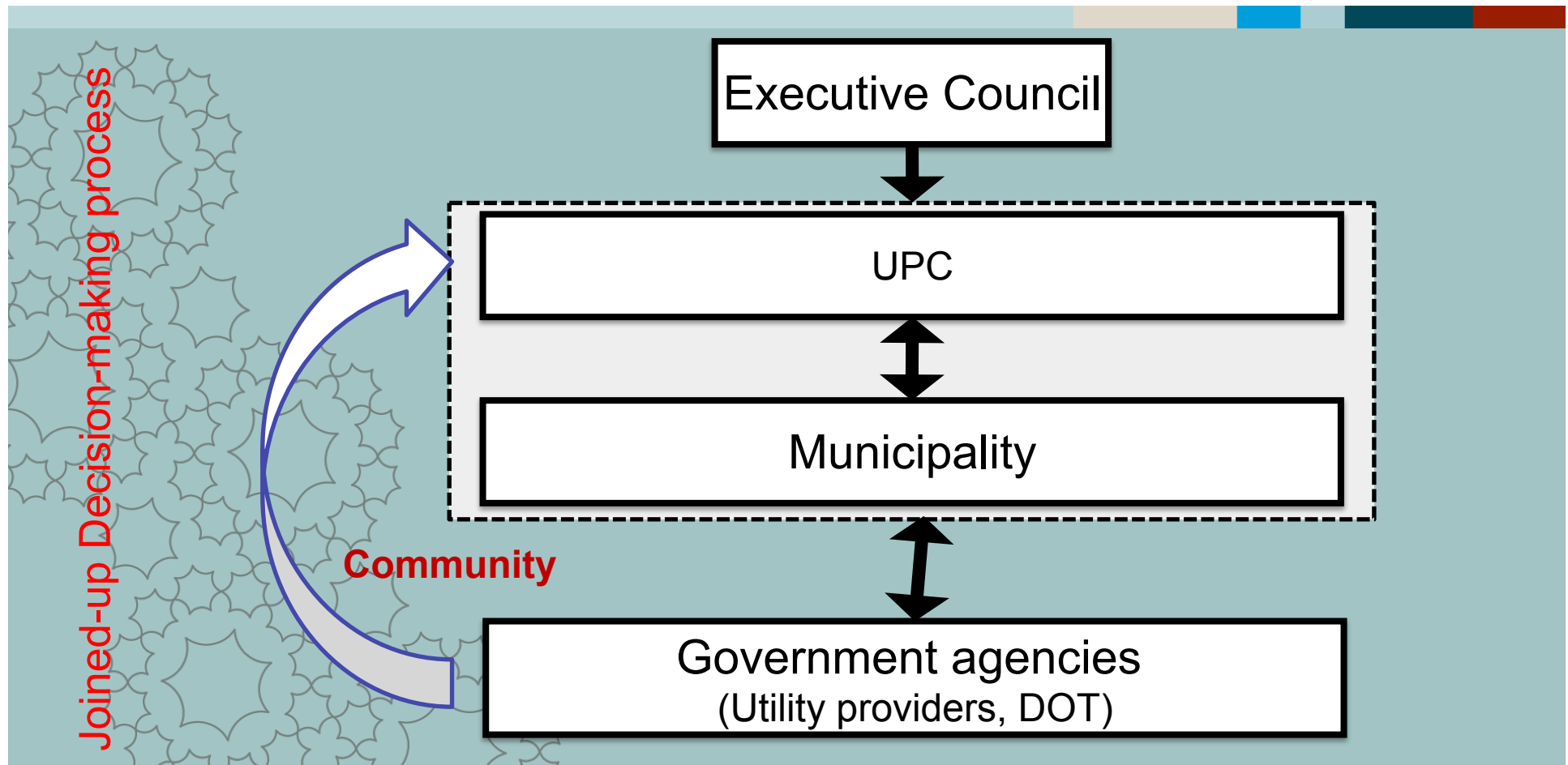ISOCARP

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# How do we get there?
## Organization structure (existing)



Decision-makers

Implementors

Executive Council

↓

UPC

↓

Municipality

**+**

Government agencies
(Utility providers, DOT)

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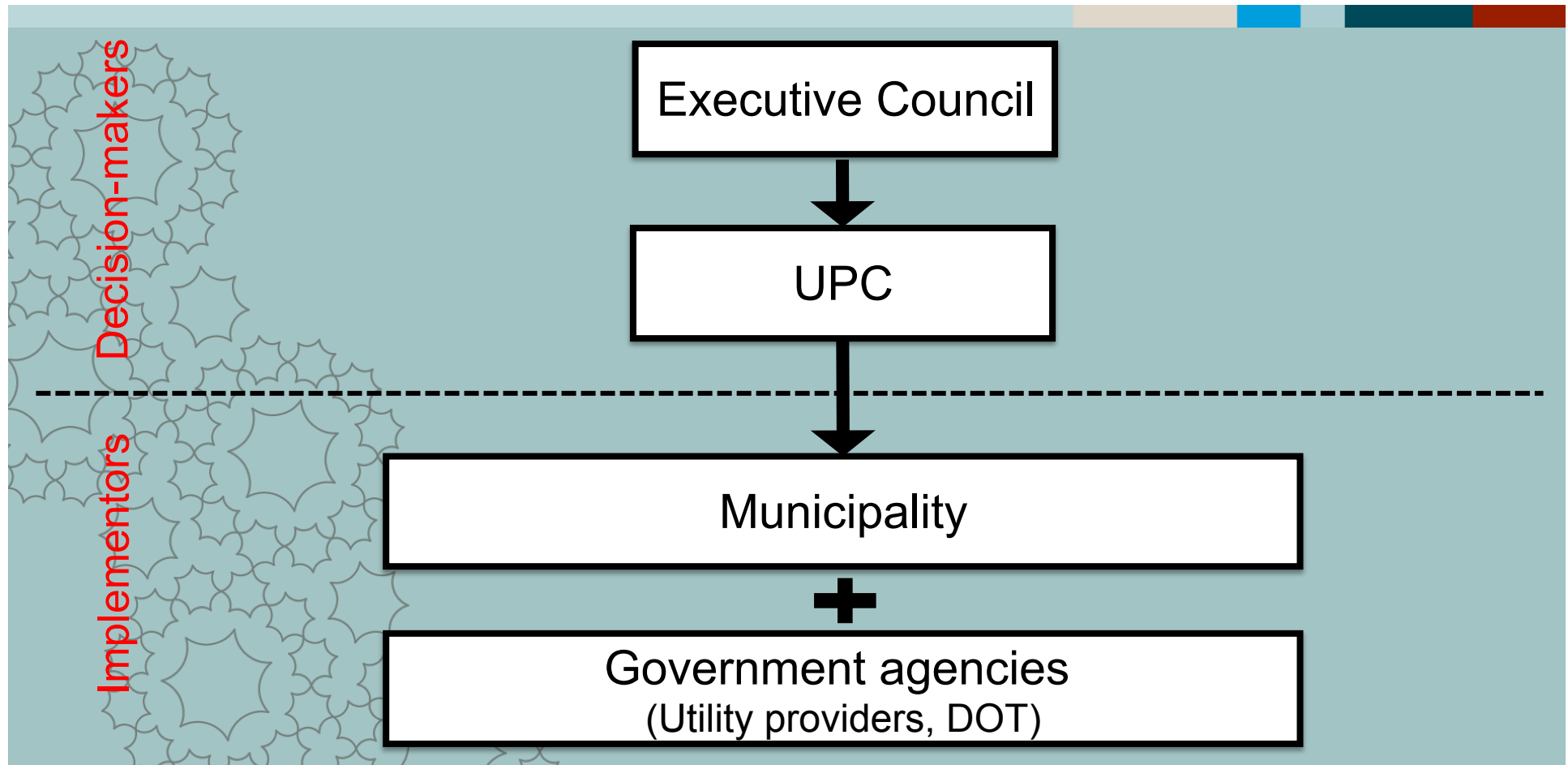
# How do we get there?
## Organization structure (recommended)



Joined-up Decision-making process

Executive Council

UPC

Municipality

Community

Government agencies
(Utility providers, DOT)

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# How do we get there?
# **Implementation tools**



Plan Abu Dhabi 2030 — Urban Structure Framework Plan

Estidama Pearls Rating Systems

Abu Dhabi Capital Development Code

Abu Dhabi Urban Street Design Manual

Public Realm Design Manual

Abu Dhabi Mosque Development Regulations Project — Benchmarking Report — 30 November 2010

Interim Coastal Development Guidelines

- Middle Income Housing Rule
- Leasing system
- Participatory forums

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# How do we get there?
## Implementation process



Connectivity / Transportation

3 Beautification/ image making

2 Placement of new uses in empty plots

1 Allocation of suitable plots outside Musaffah

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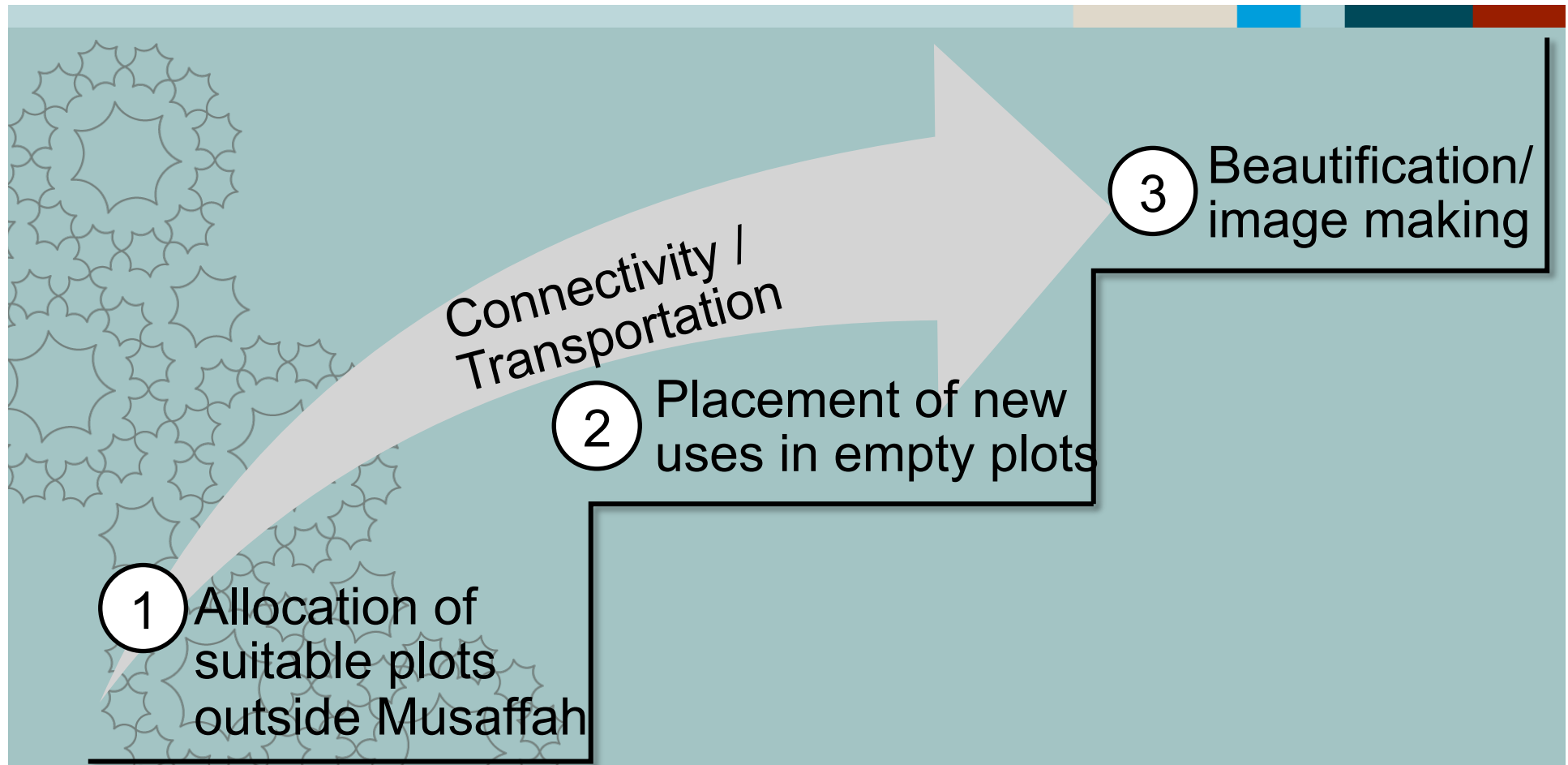
# Musaffah 2030

# Concluding…..

# Concluding…..
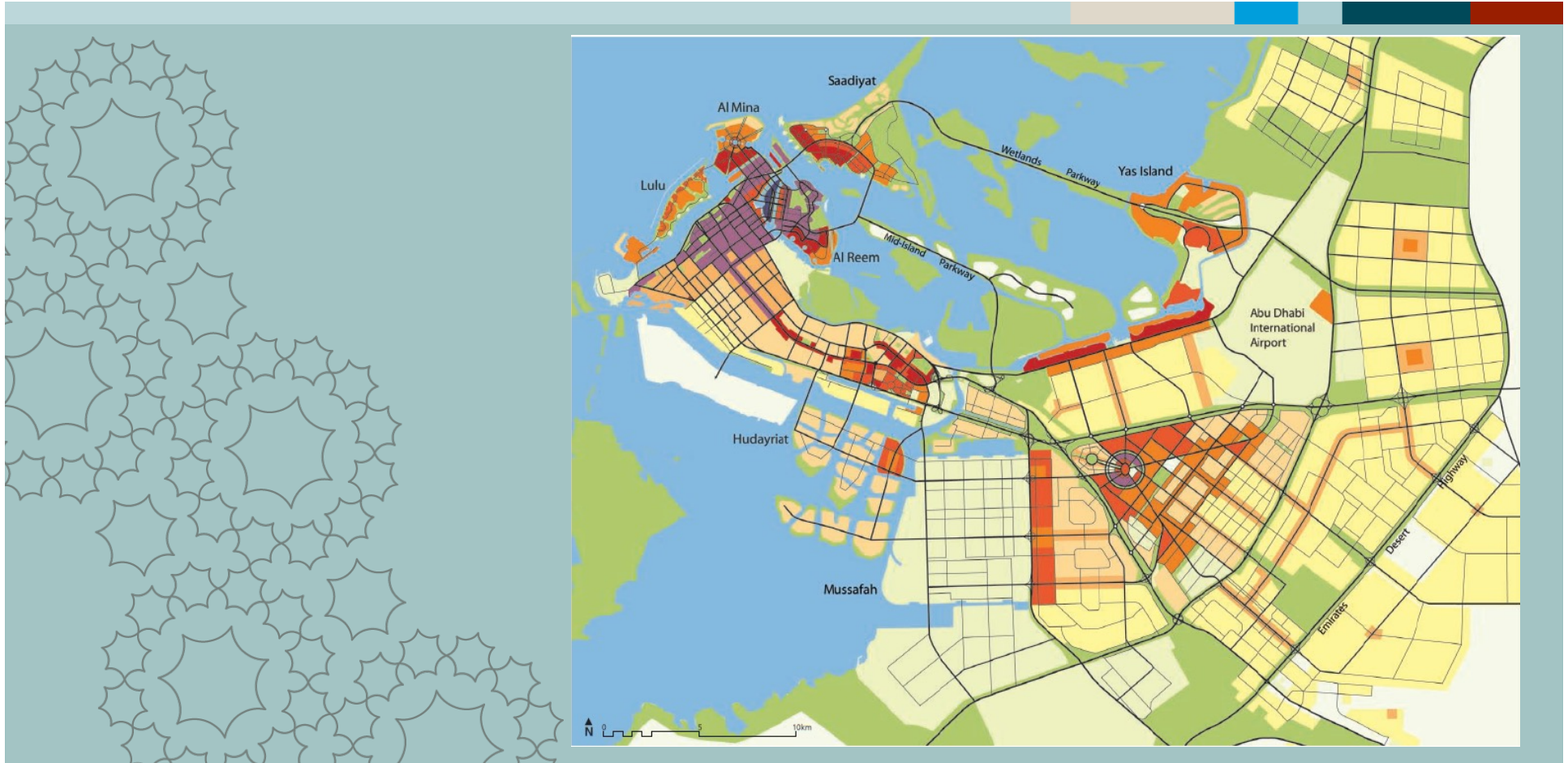
# Intensive Training Program for Young Planning Professionals

## Training Results

### Today's Presentation + Report

- "Tornado's in the mind"…..

- Musaffa:
    - Not an other plan!;
    - A fresh look at the desired regenerating proces;
    - New ideas / hopefully usefull and implementable.
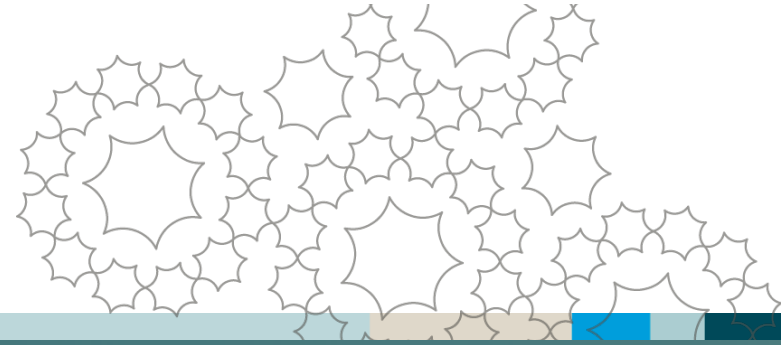
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# Questions, comments, discussion

?

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# Questions, comments, discussion

# Bibliography

**Abu Dhabi Plan 2030**
Estidama Pearl Rating System
Estidama Design Framework
Street Design Manual
Public Realm Design Manual
Emirati Neighbourhood Guidelines (Freej)
Abu Dhabi Development Code
Safety and Security Charette
Mosque Development Regulations
Interim Coastal Development Guidelines
Middle Income Housing Rule

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