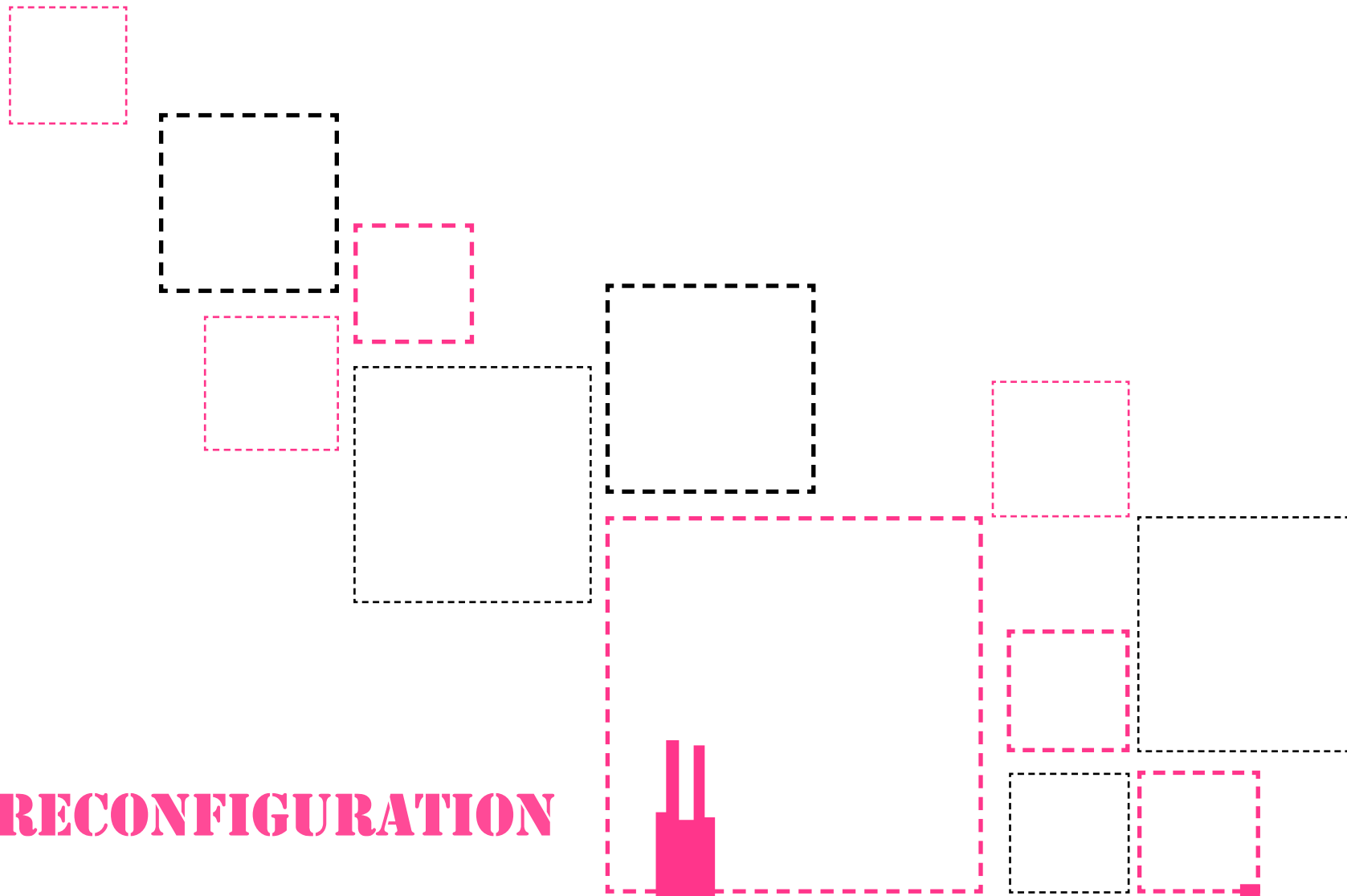


# PUBLIC SPACE RECONFIGURATION

promoting socio-spatial integration in  
segregated context of Shenzhen





# Contents

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**I. Background & Motivation**

**II. Problem Diagnosis**

**III. Methodology**

**IV. Theoretical Framework**

**V. Strategy & Intervention**

**VI. Conclusion & Reflection**

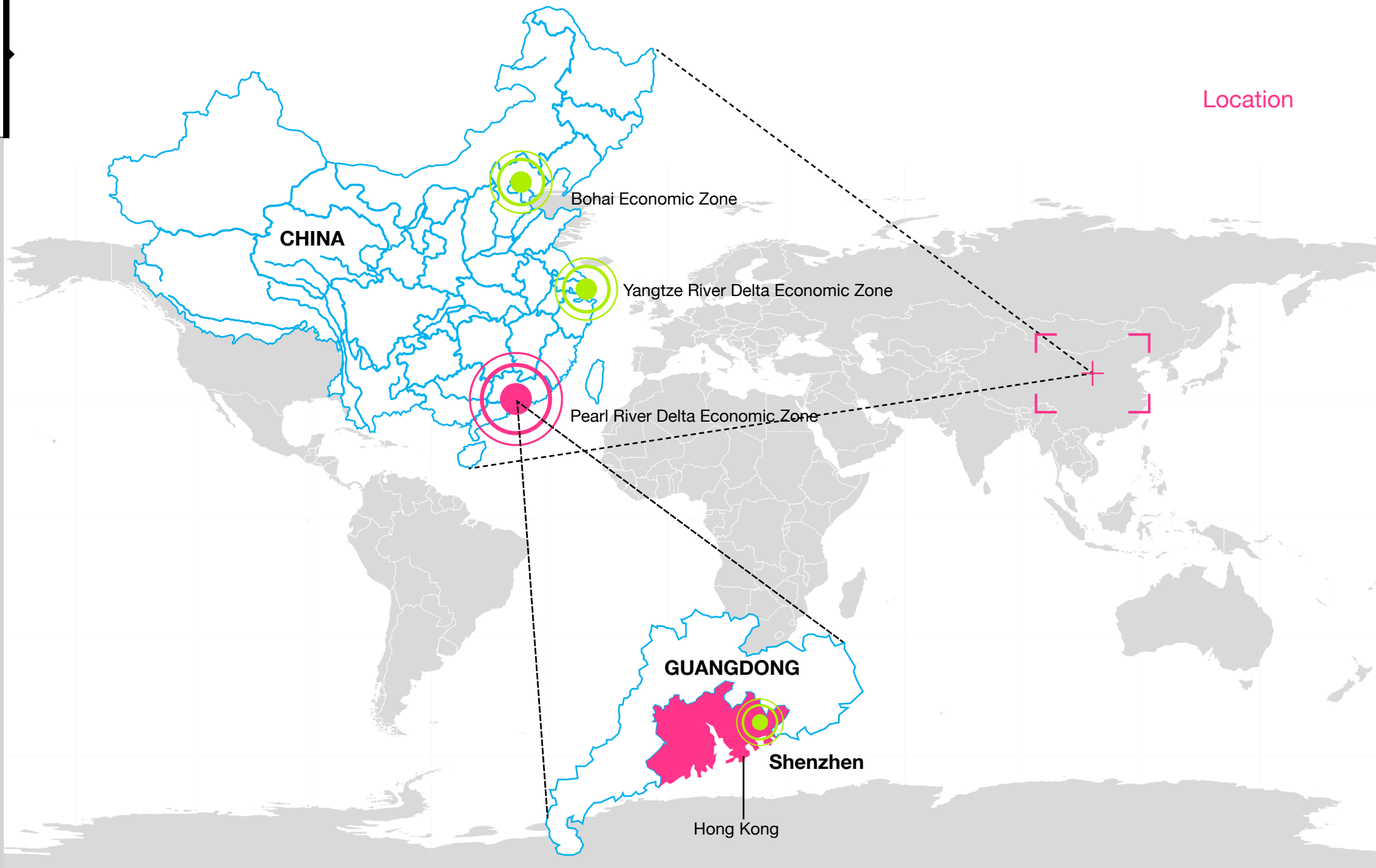




# **Part** **1** **Background & Motivation**

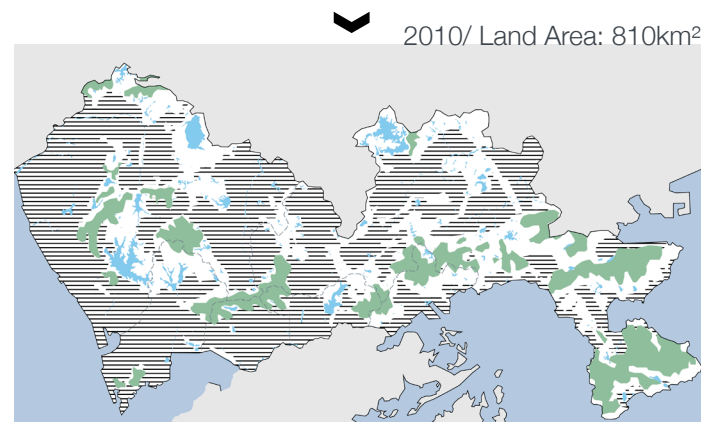
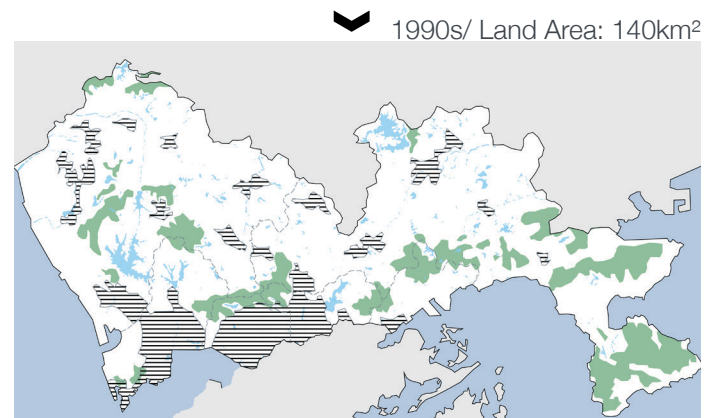
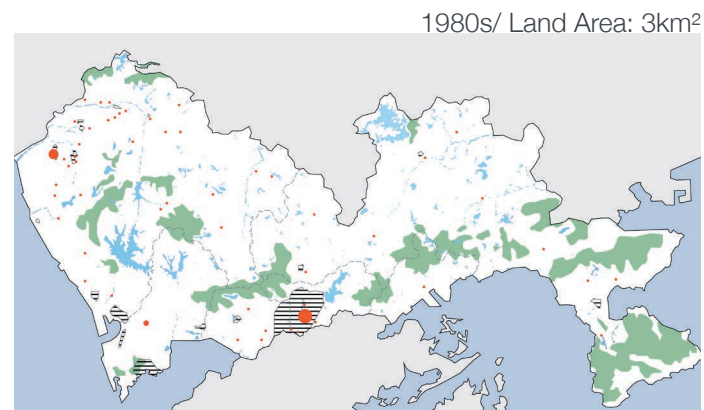


Location

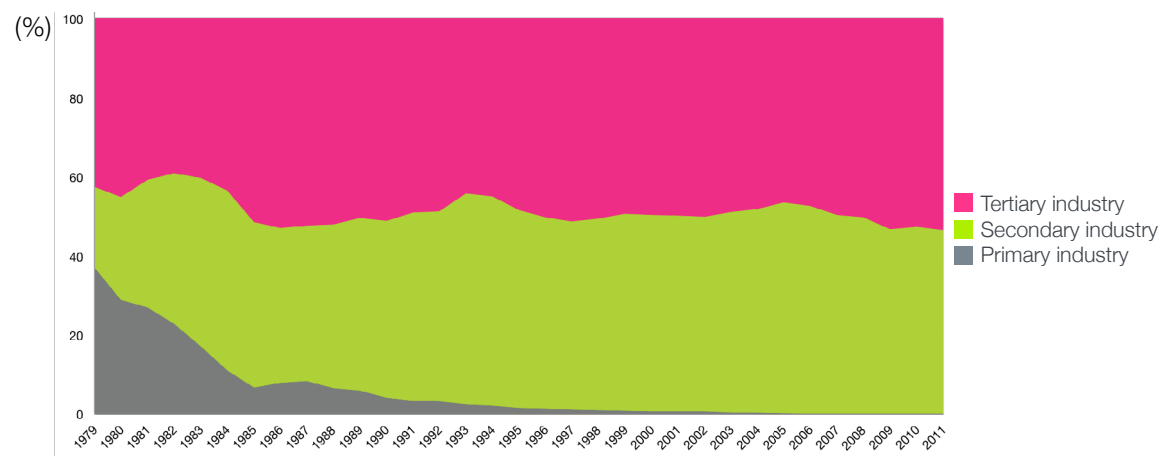




## Spatial sprawl



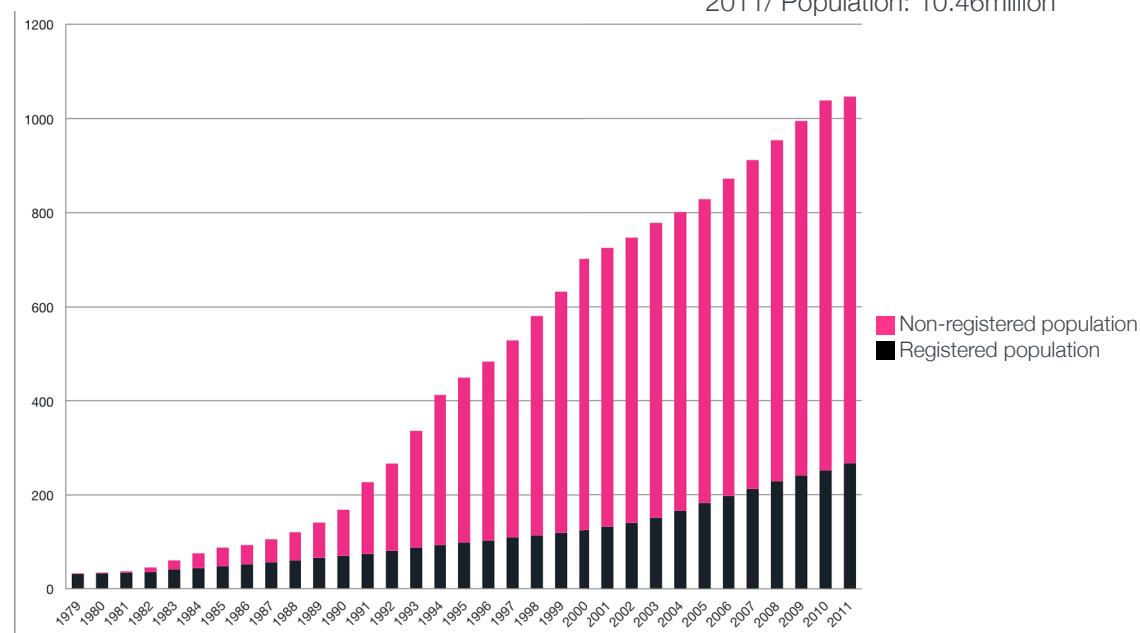
## Economic restructuring



## Population growth

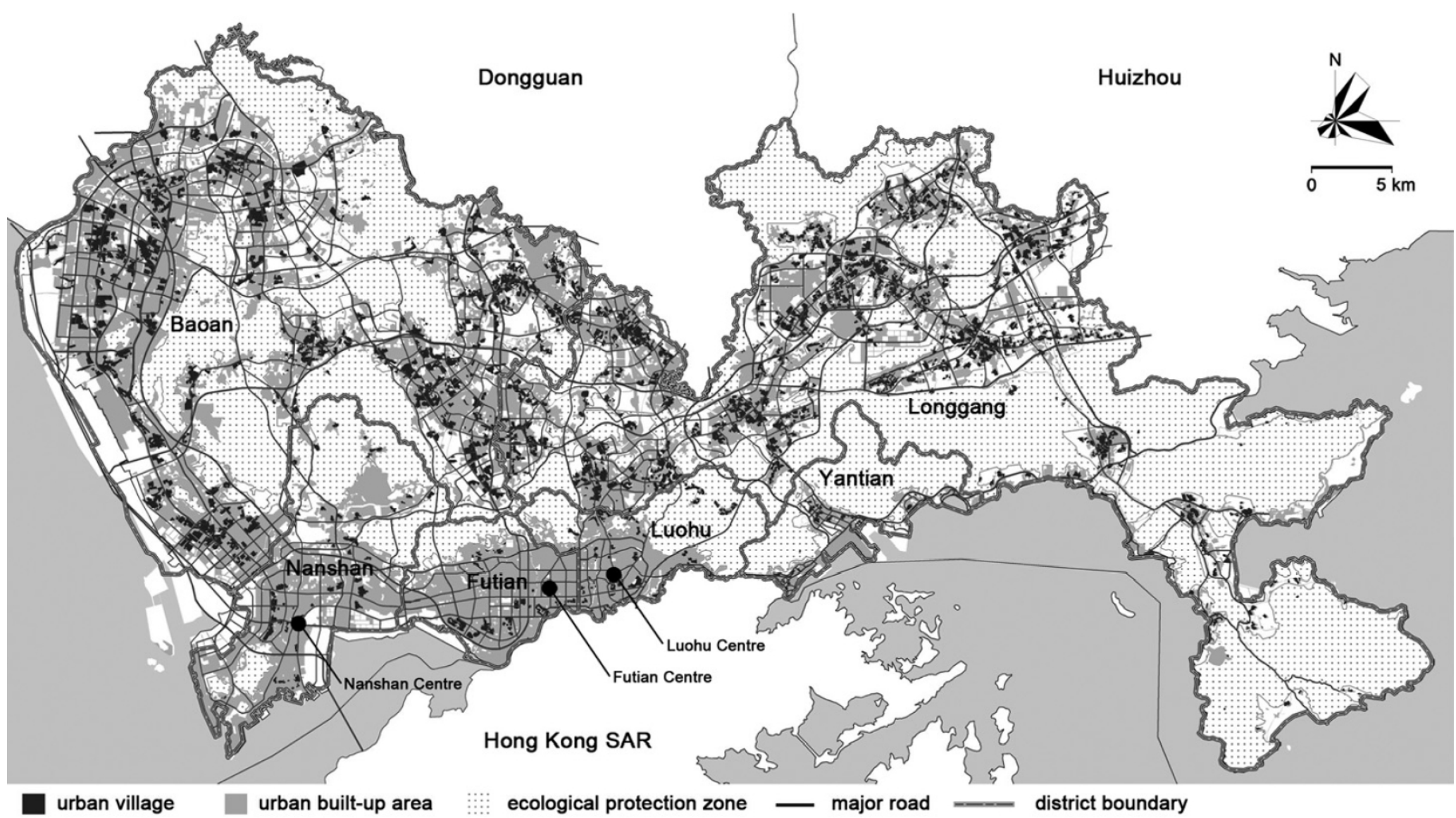
(10,000 persons)

1979/ Population: 0.31million  
2011/ Population: 10.46million



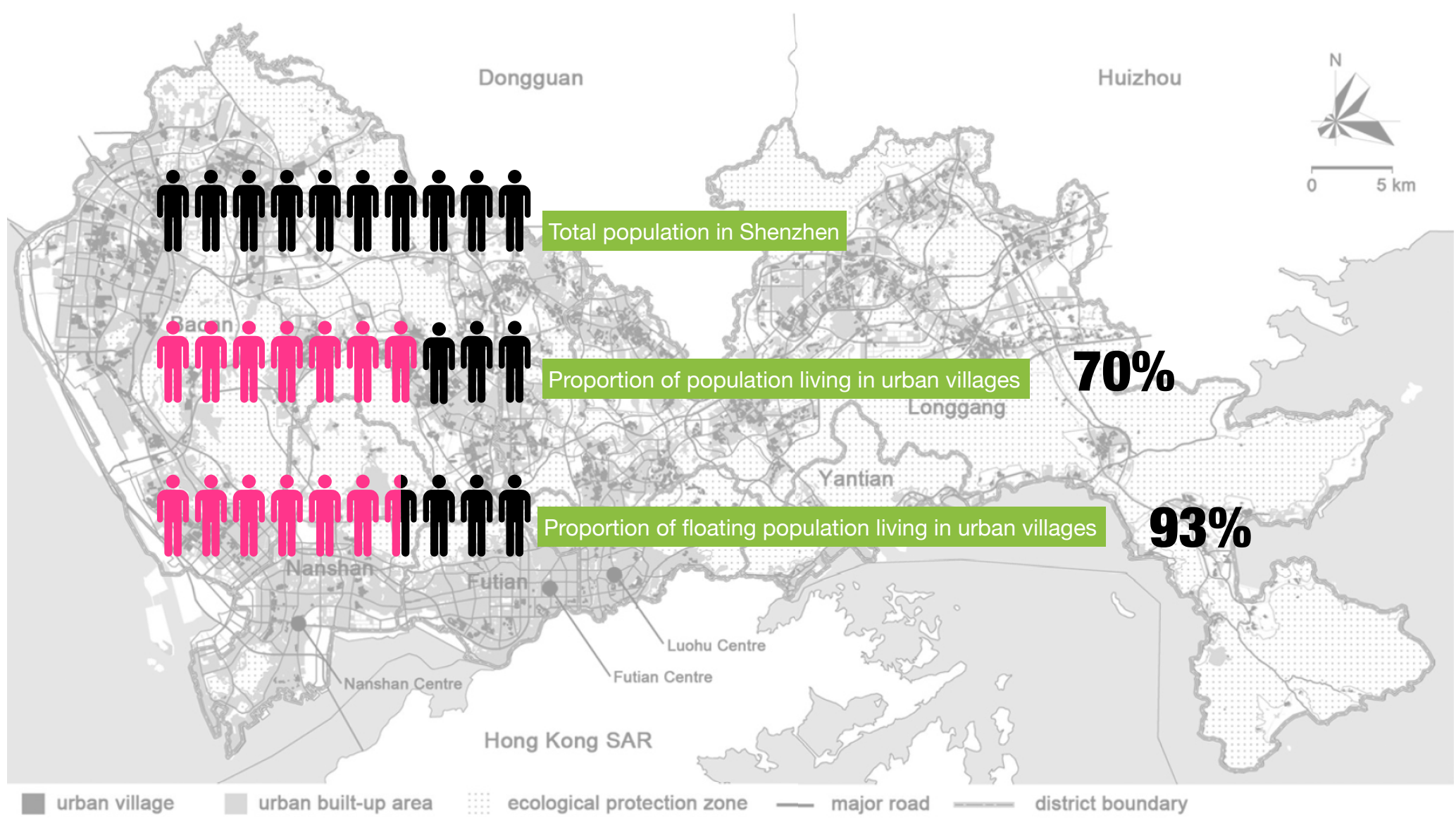


Distinct urban fabric---urban villages





# Distinct urban fabric---urban villages





# Motivation

Concentration of low-income group in urban villages

Socio-spatial disparities

Gentrification---future of low-income group?



**Socio-spatial segregation**

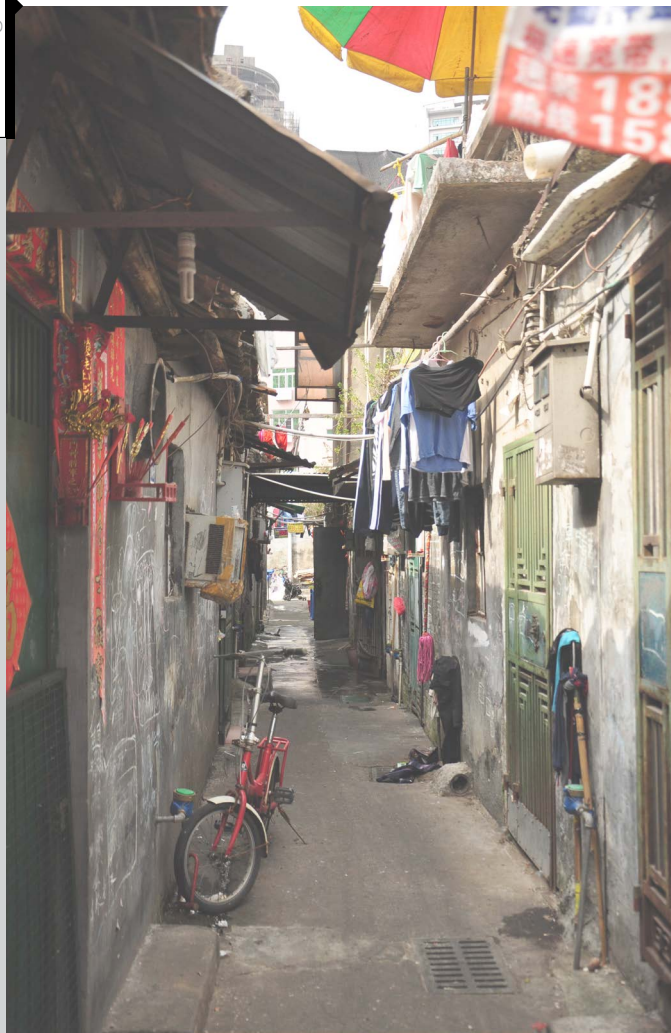




# Part 2 Problem Diagnosis



## Urban village



## Work-unit compound

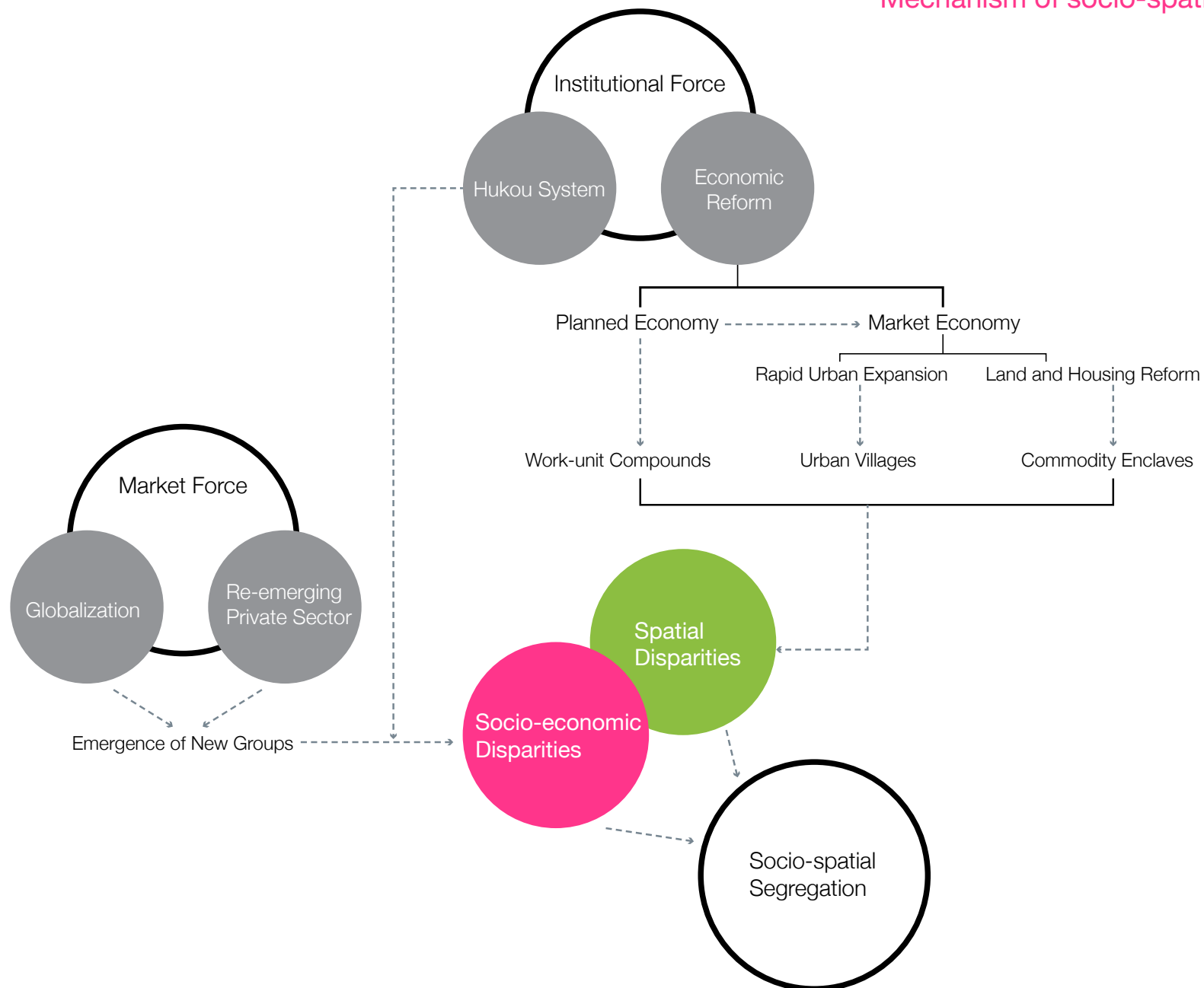


## Commodity enclave



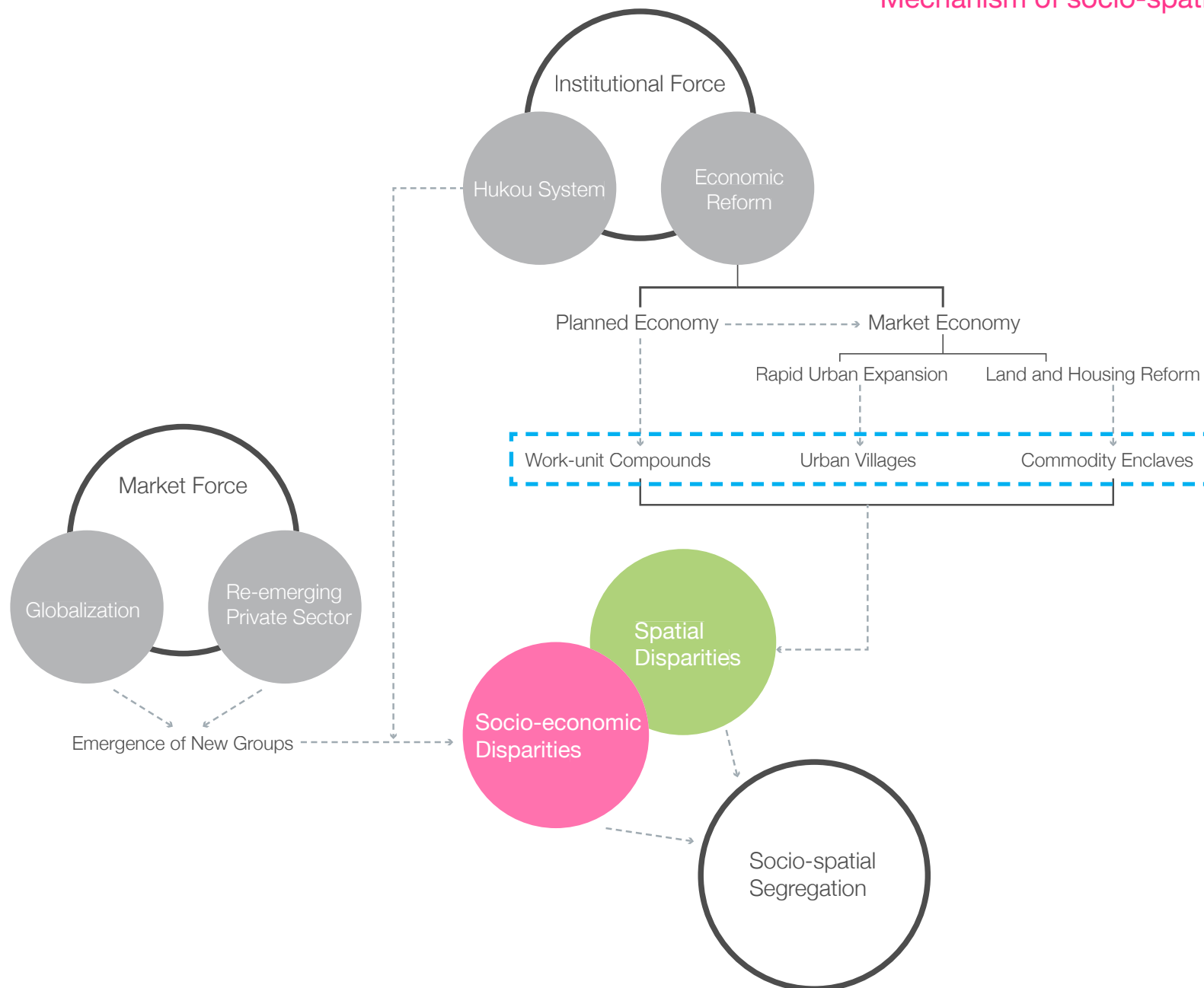


## Mechanism of socio-spatial segregation





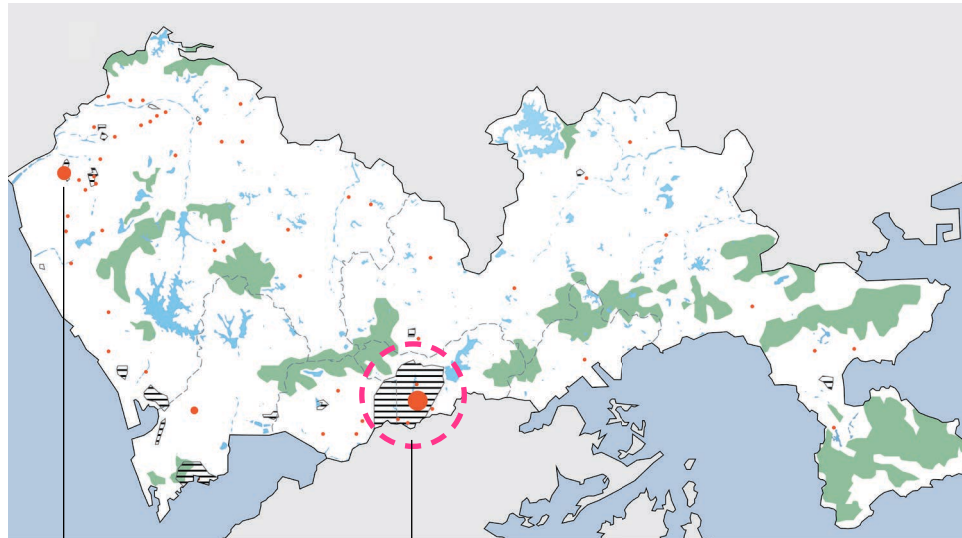
## Mechanism of socio-spatial segregation





## Distribution of different housing types

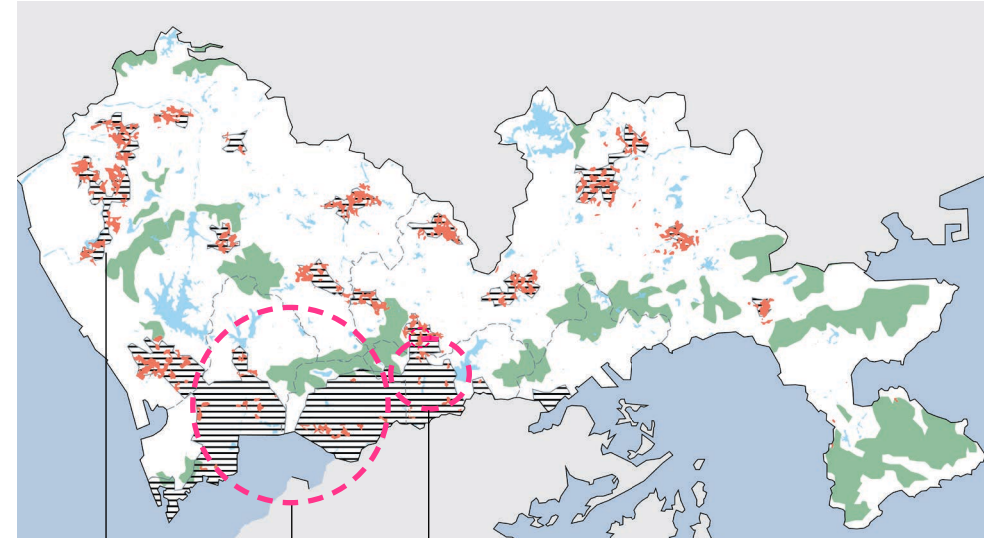
1980s Planned economy



Villages

Work-unit compounds

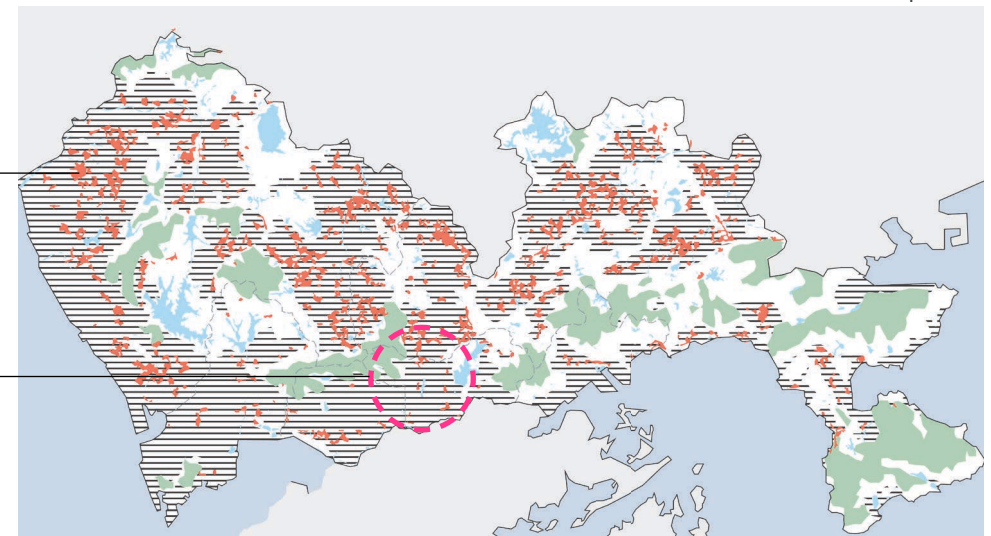
1990s Market economy



Urban villages

Commodity enclaves

2010s Urban sprawl



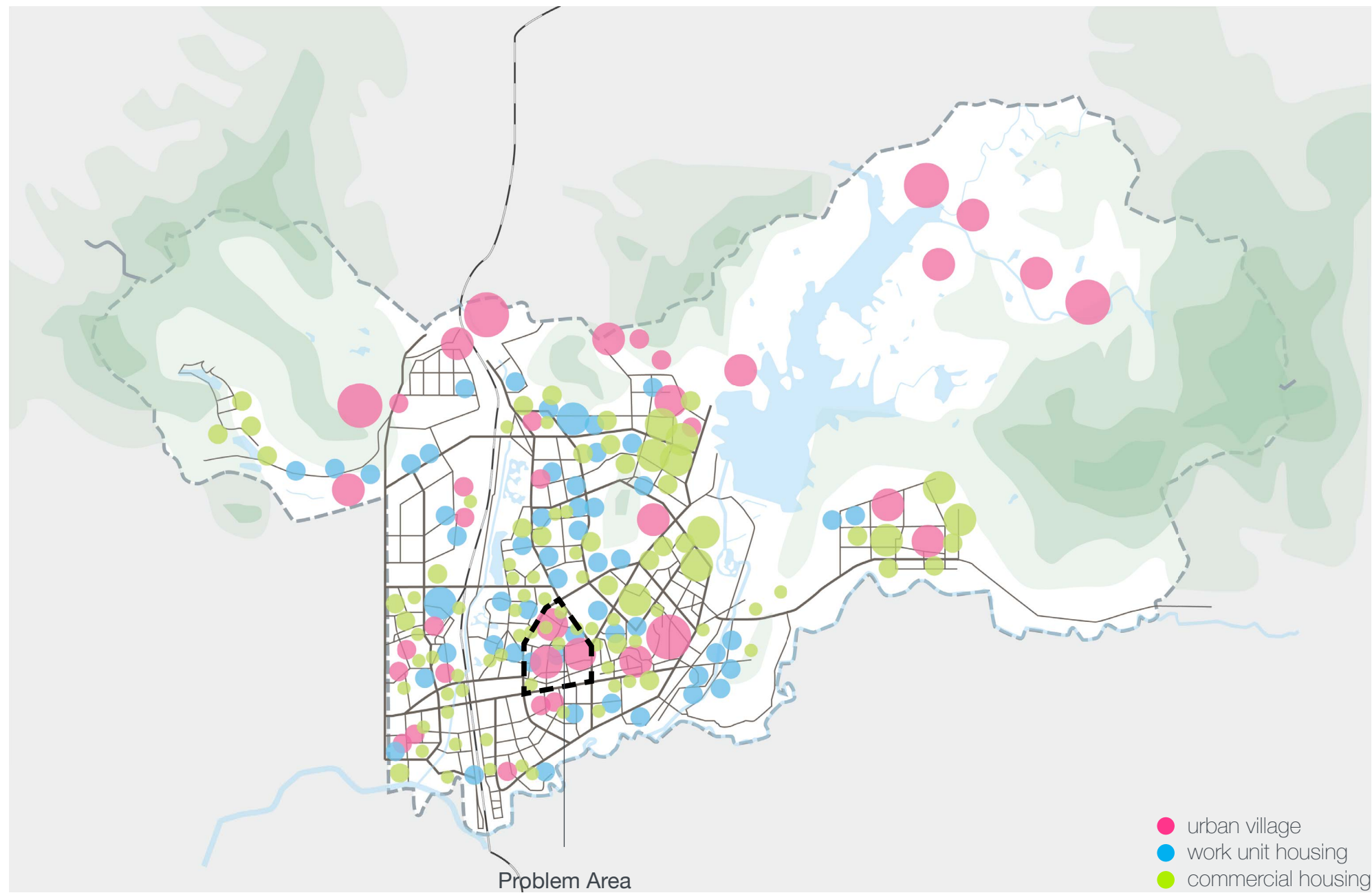
Urban villages

Mixed housing types

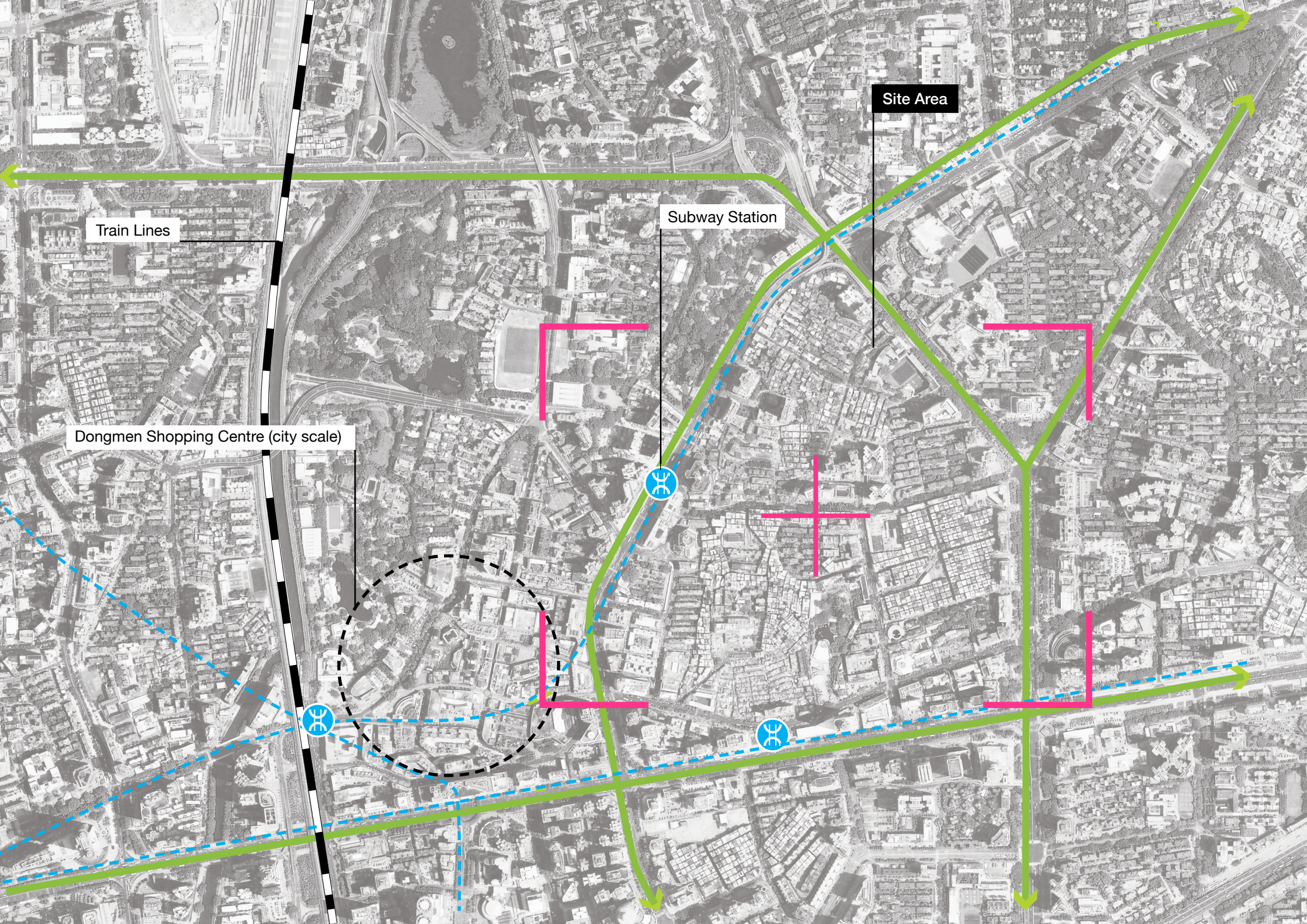
Focused District



District scale---neighbourhood scale







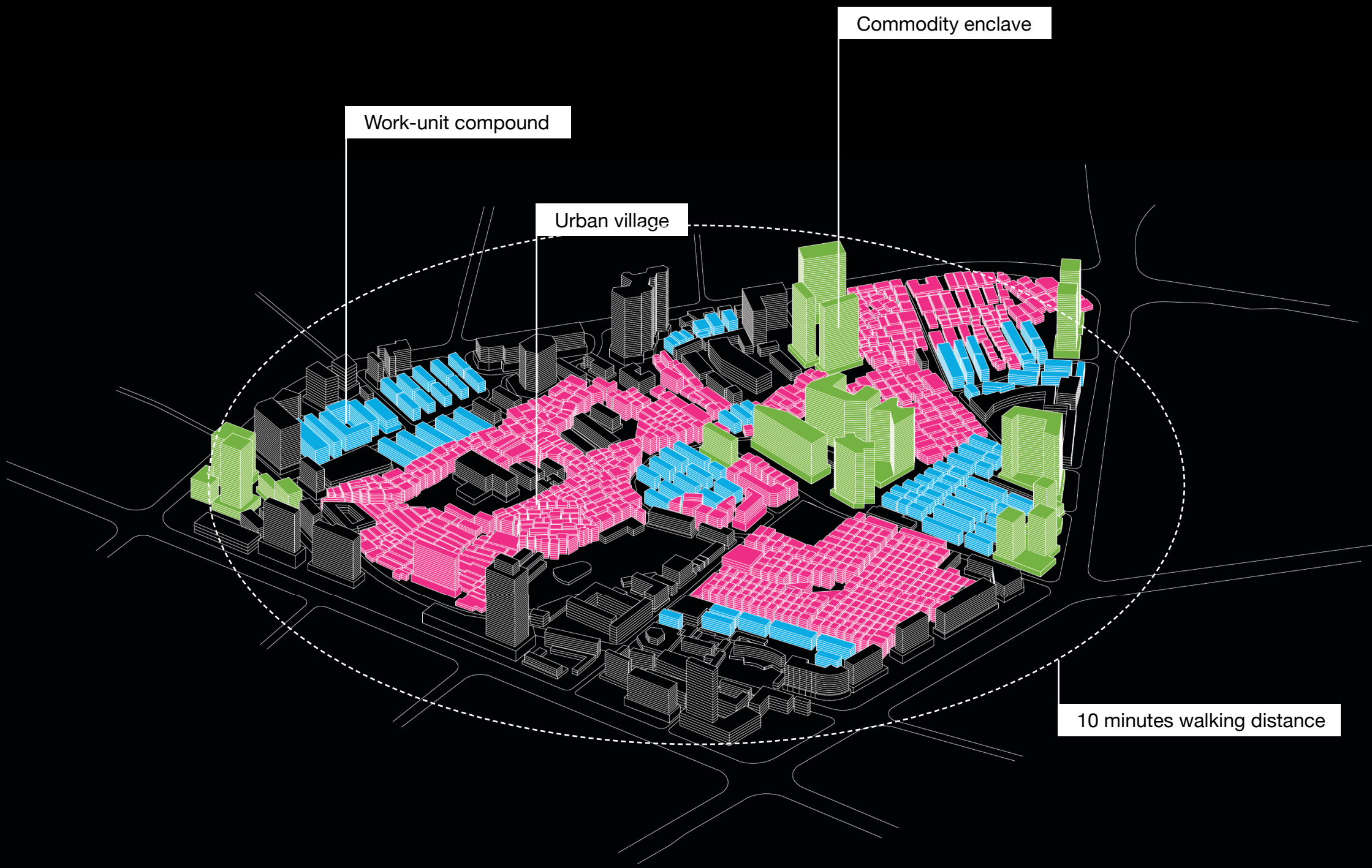
Train Lines

Dongmen Shopping Centre (city scale)

Subway Station

Site Area

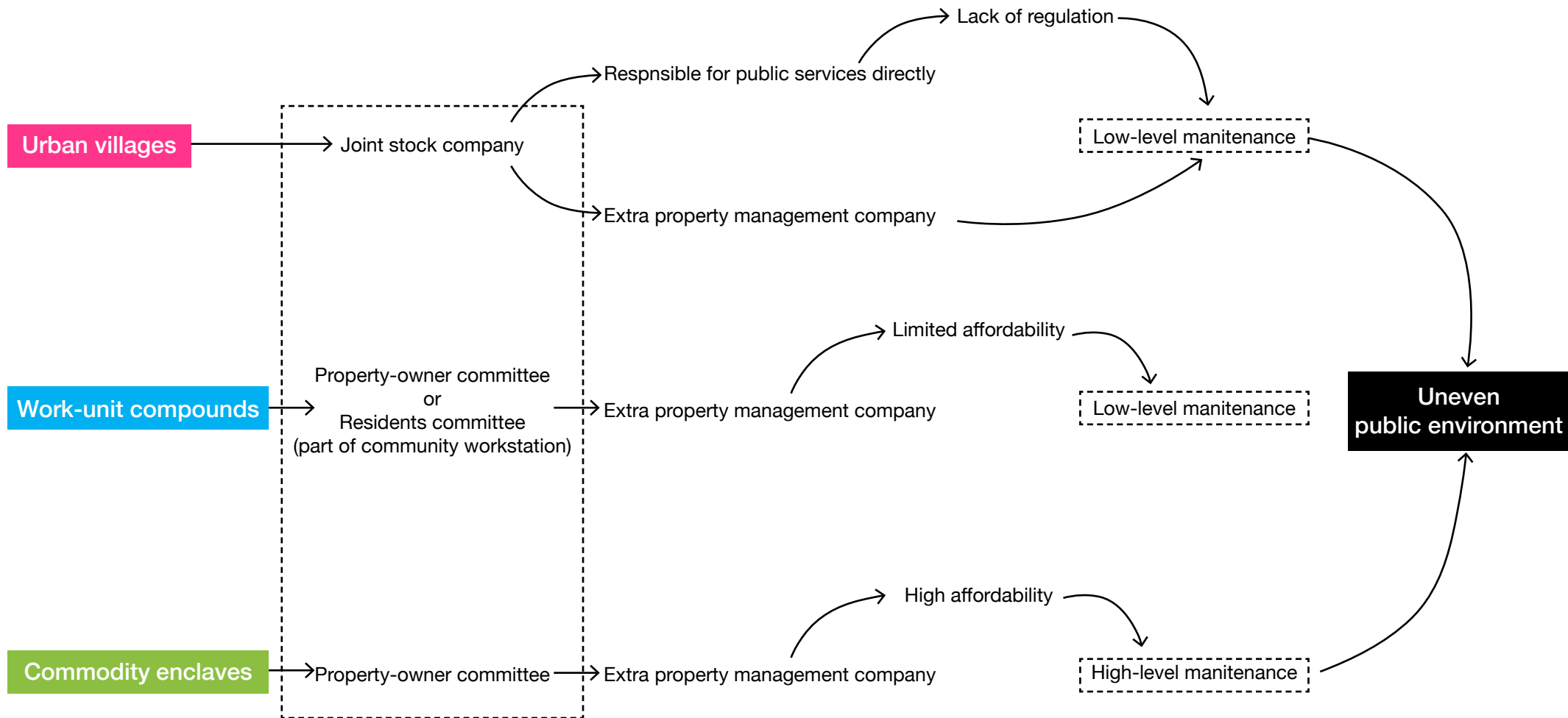






## Power fragmentation

Problem  
Diagnosis





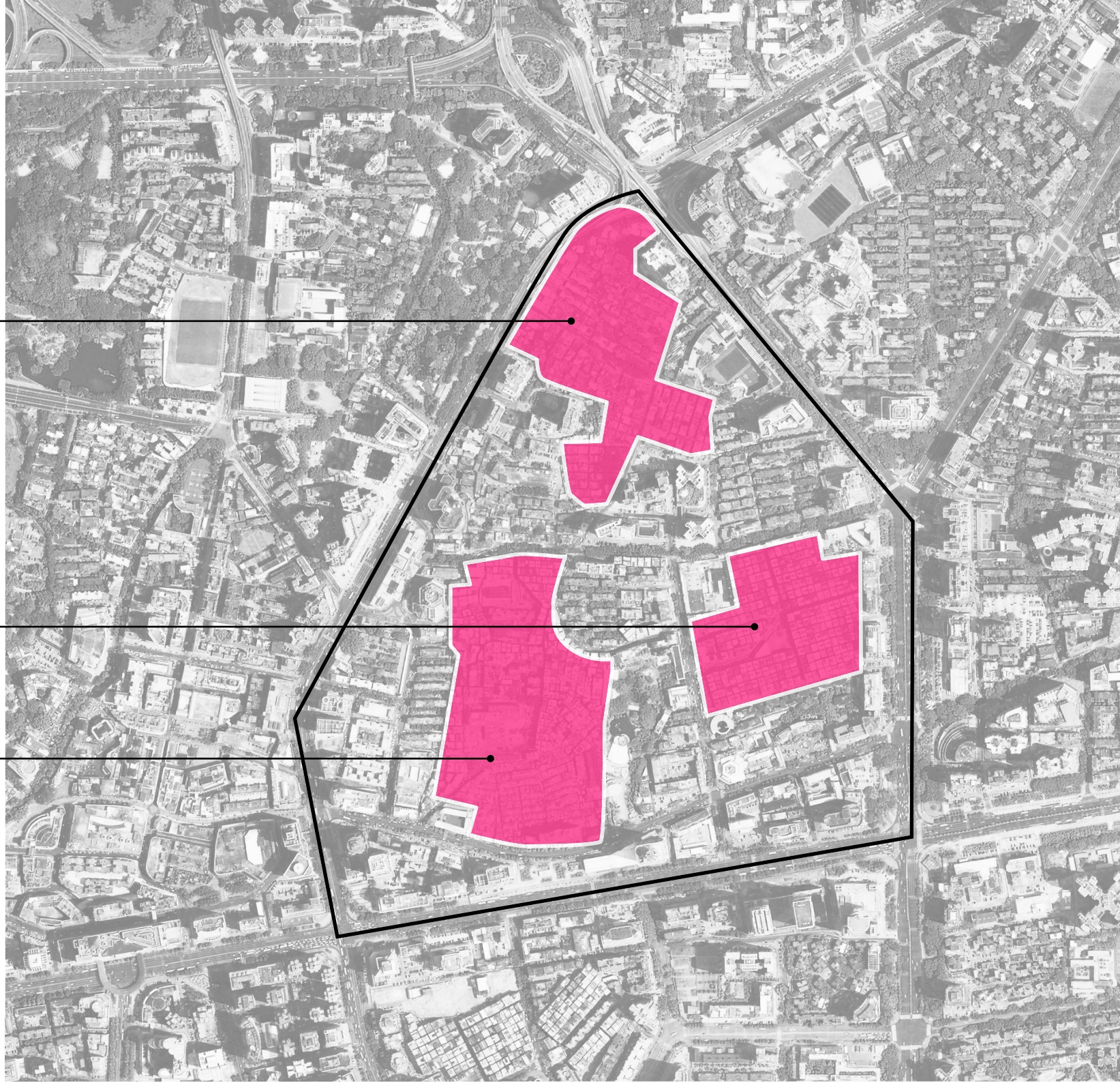
## Dual city character

Urban villages

800~900 CNY/ one-bedroom

800~900 CNY/ one-bedroom

400~500 CNY/ one-bedroom





## Dual city character

Work-unit compounds

1700 CNY/one-bedroom

1300~1500 CNY/one-bedroom

800~1200 CNY/one -bedroom

1000~1200CNY/one-bedroom





## Dual city character

Commodity enclaves

1500~2400 CNY/one-bedroom

1800~2200 CNY/one-bedroom

2500~4000 CNY/one-bedroom

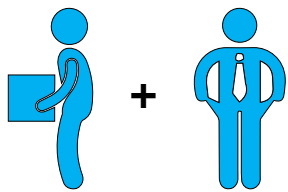




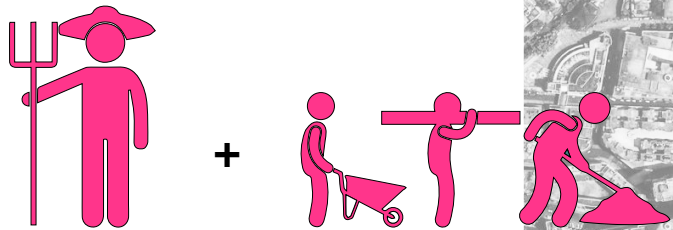
## Dual city character



Upper class

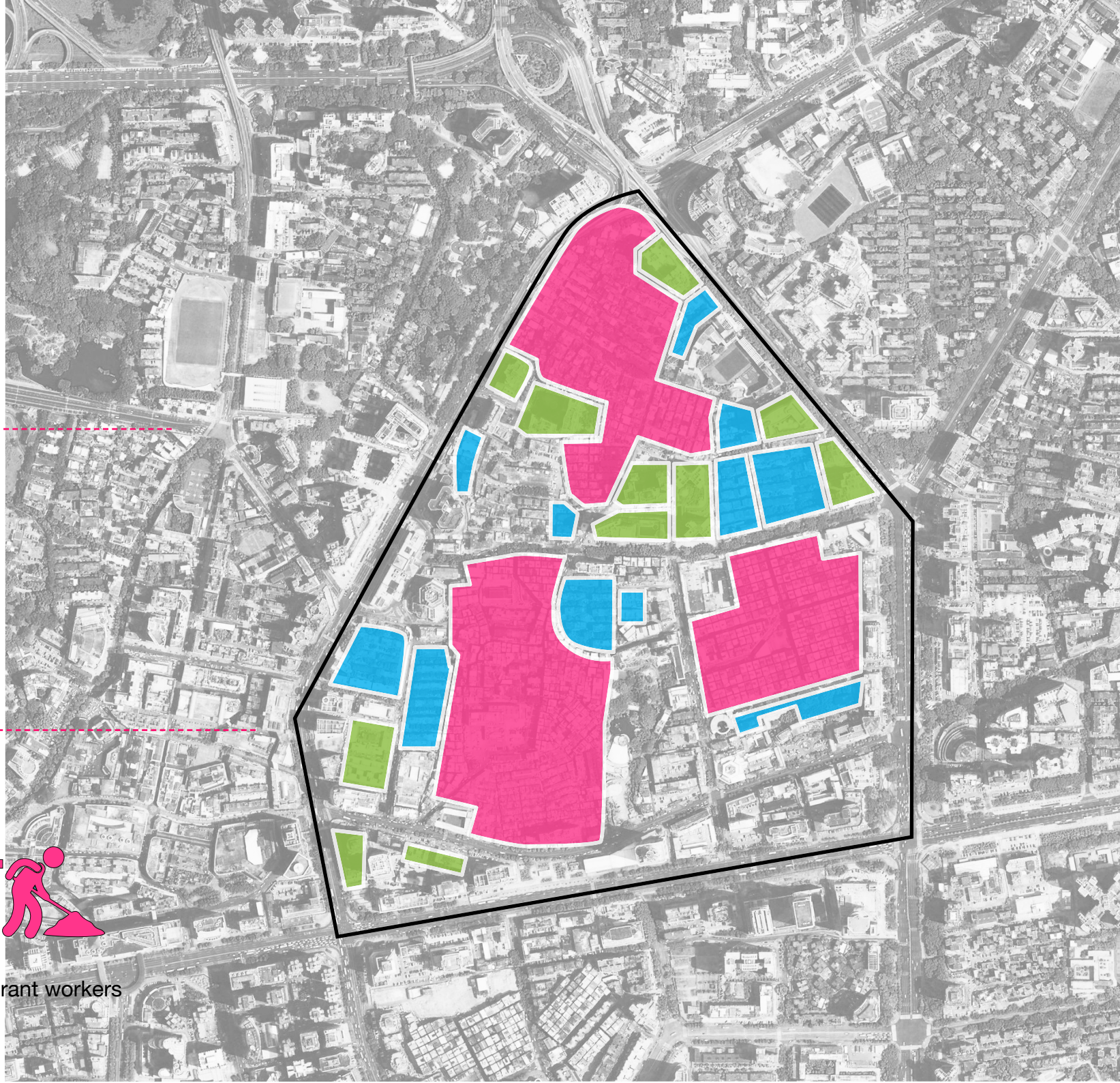


Young professionals



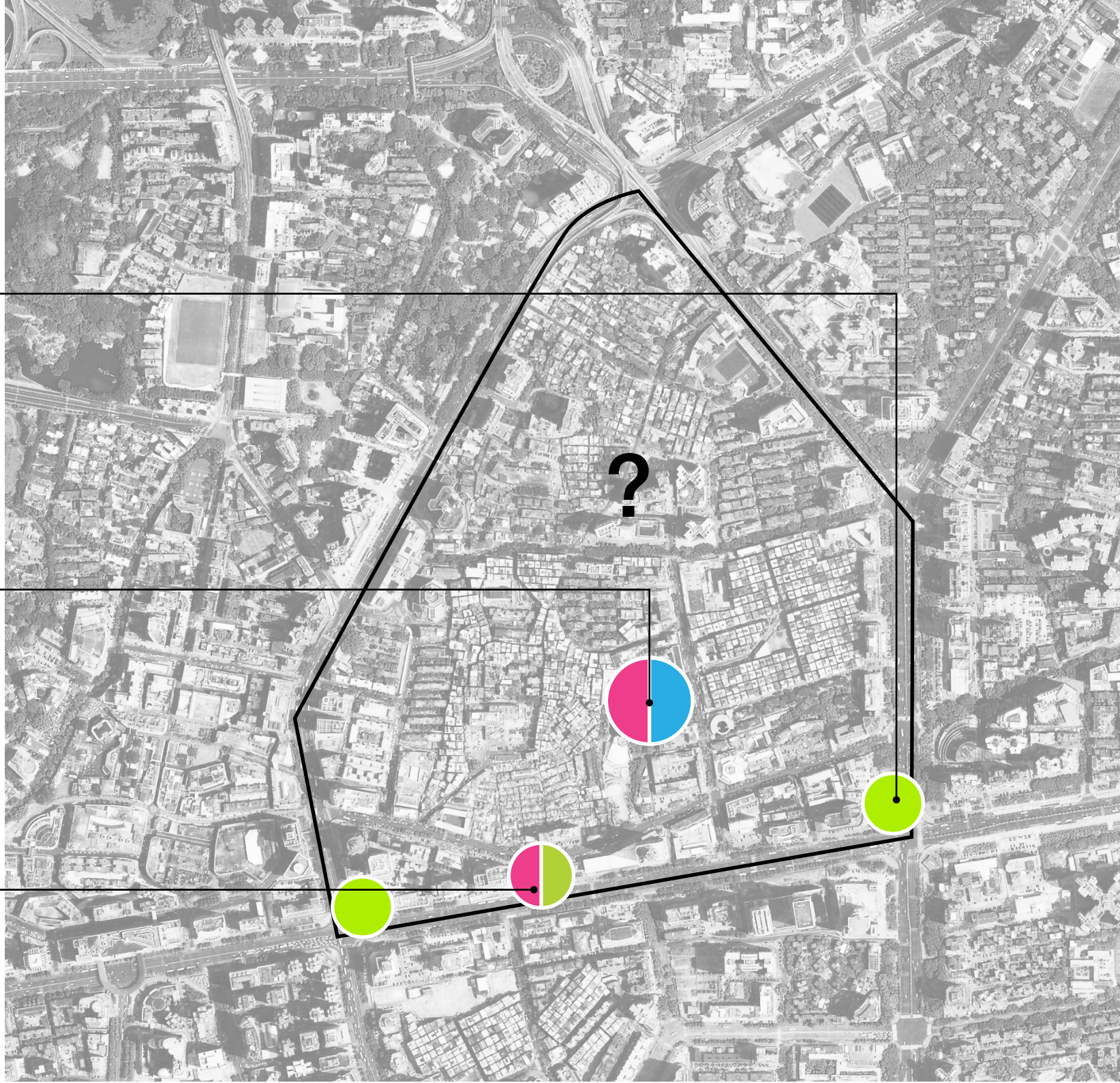
Property owners

Low-income migrant workers





## Dual city character





## Physical boundary

Walls and fences





## Physical boundary

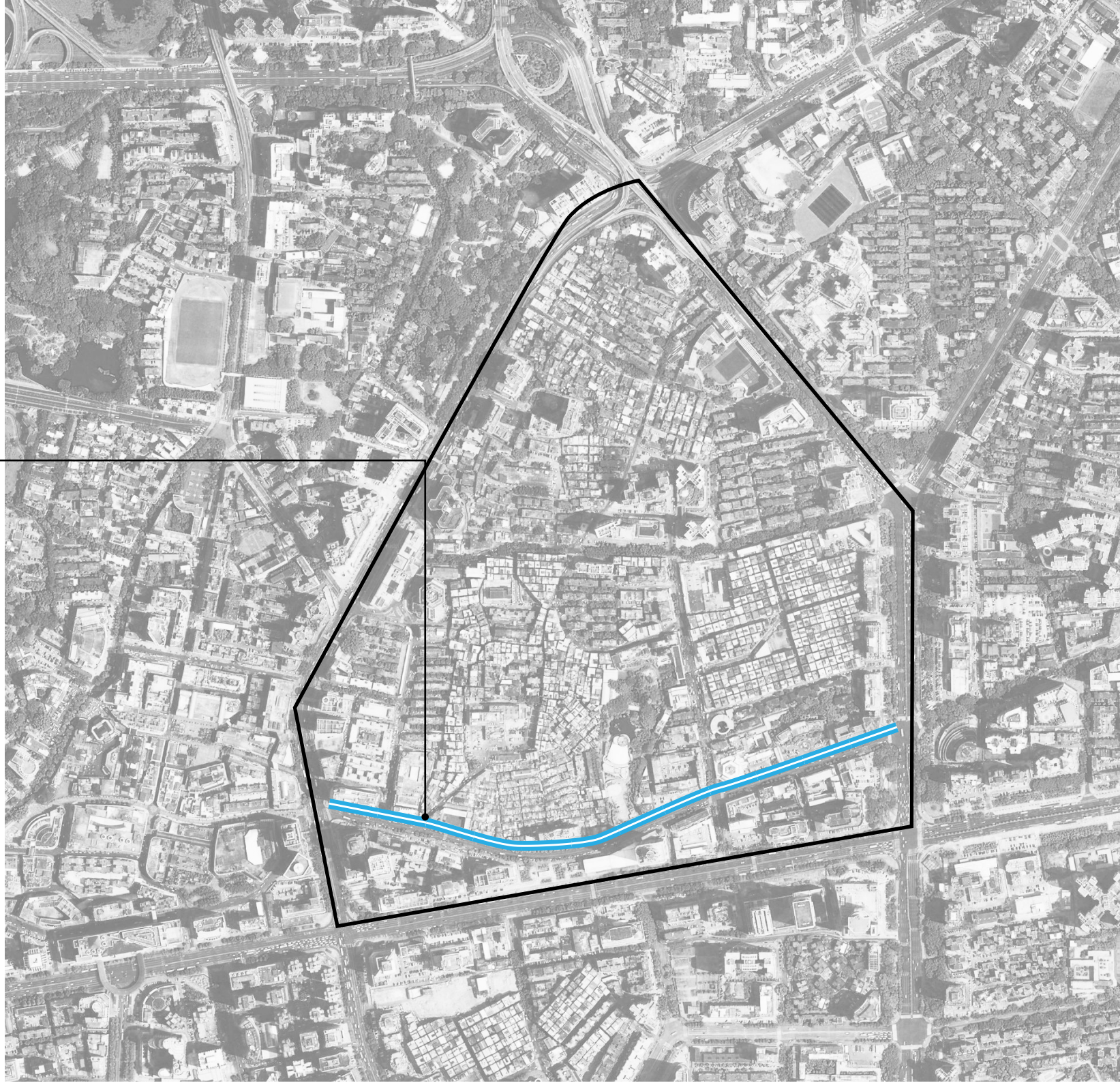
Distinct spatial quality








## Physical boundary

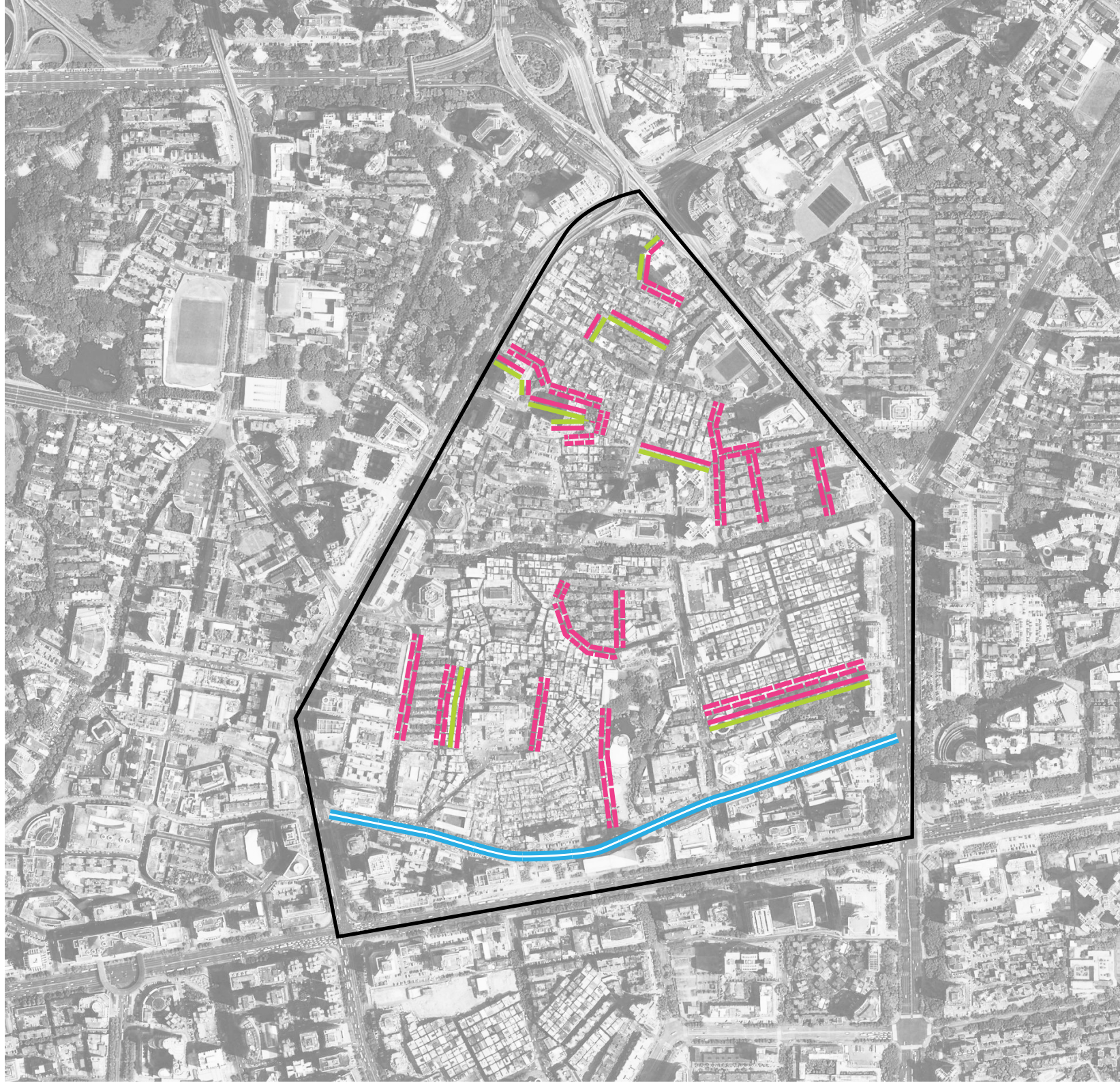
Infrastructure





## Physical boundary

-  Walls and fences
-  Infrastructure
-  Distinct spatial quality





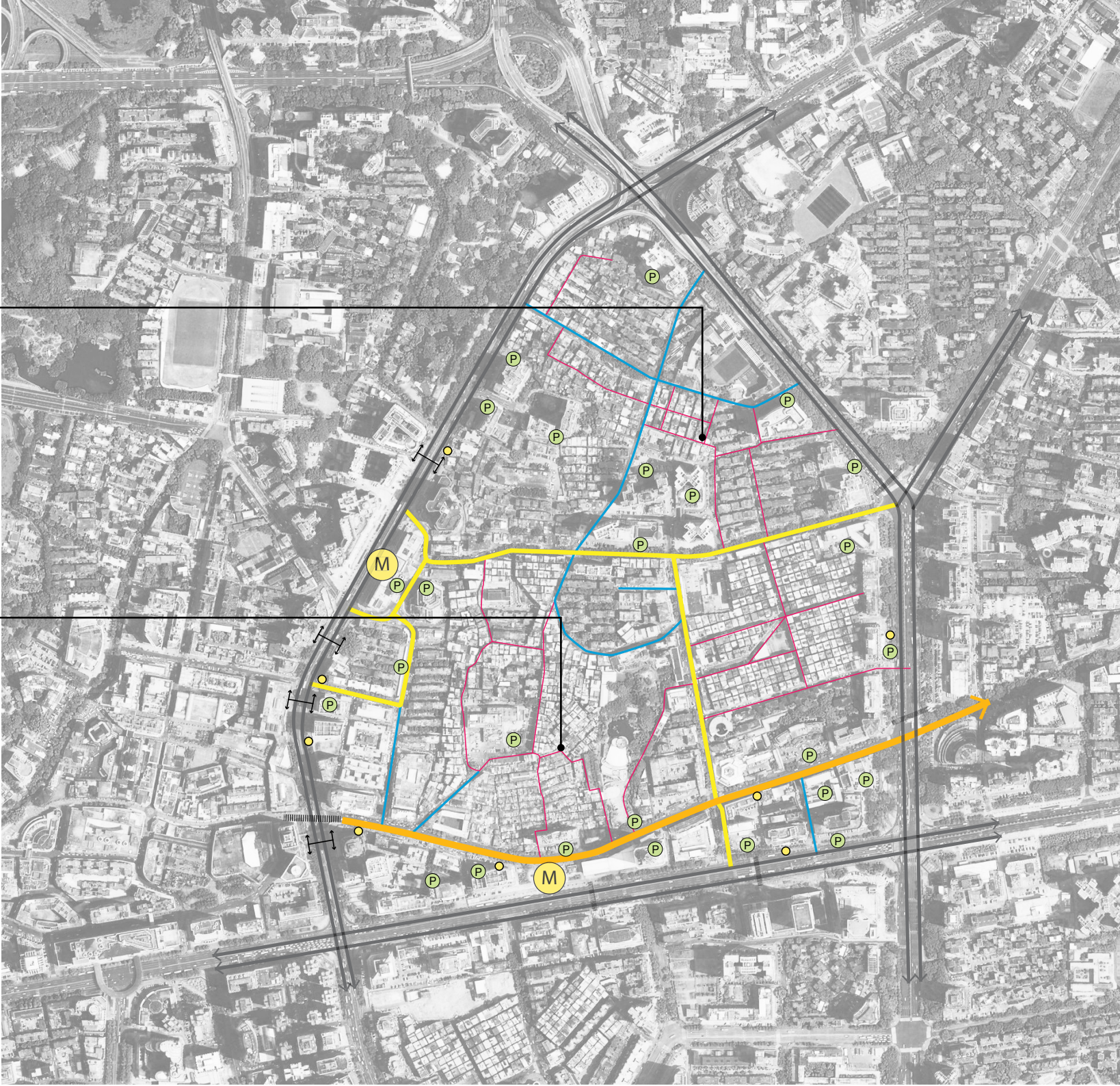
Separated life circles

Network accessibility

Problem  
Diagnosis



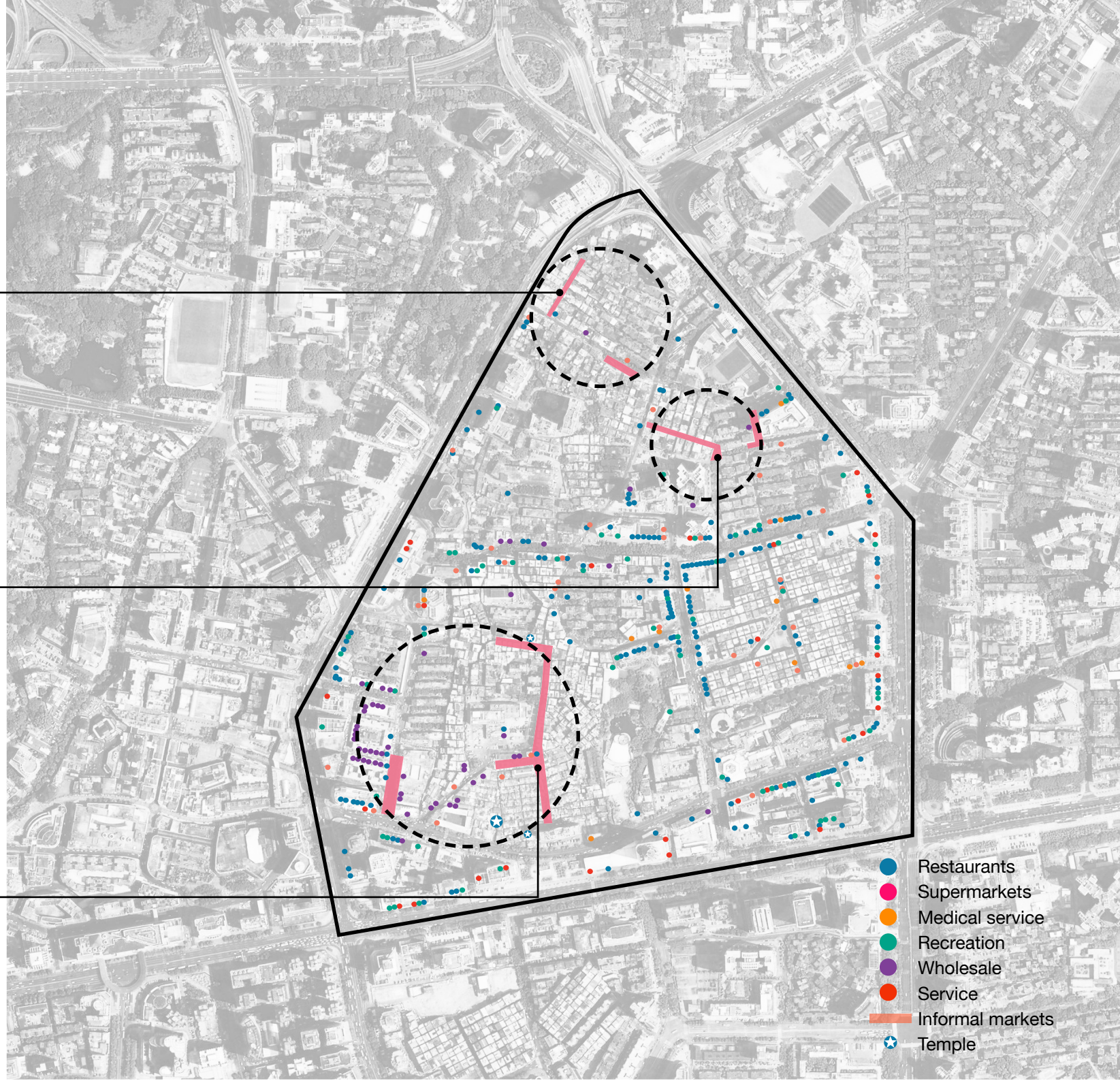
- Main street inside
- Secondary road
- Branch road
- Main pedestrian route
- Parking
- Metro station
- Bus station
- Pedestrian bridge
- Pedestrian crossing





## Separated life circles

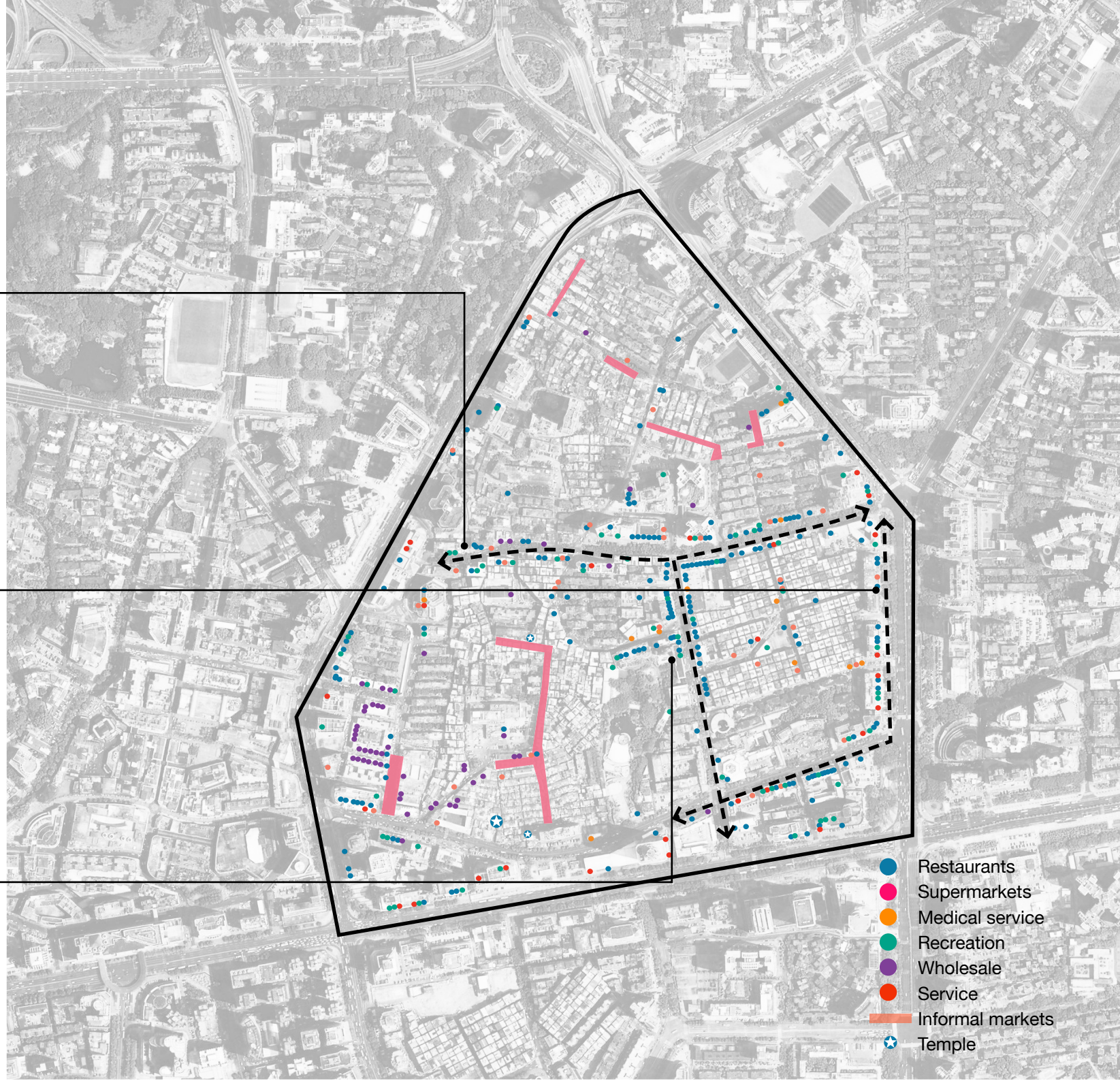
Different daily supply





## Separated life circles

Different daily supply

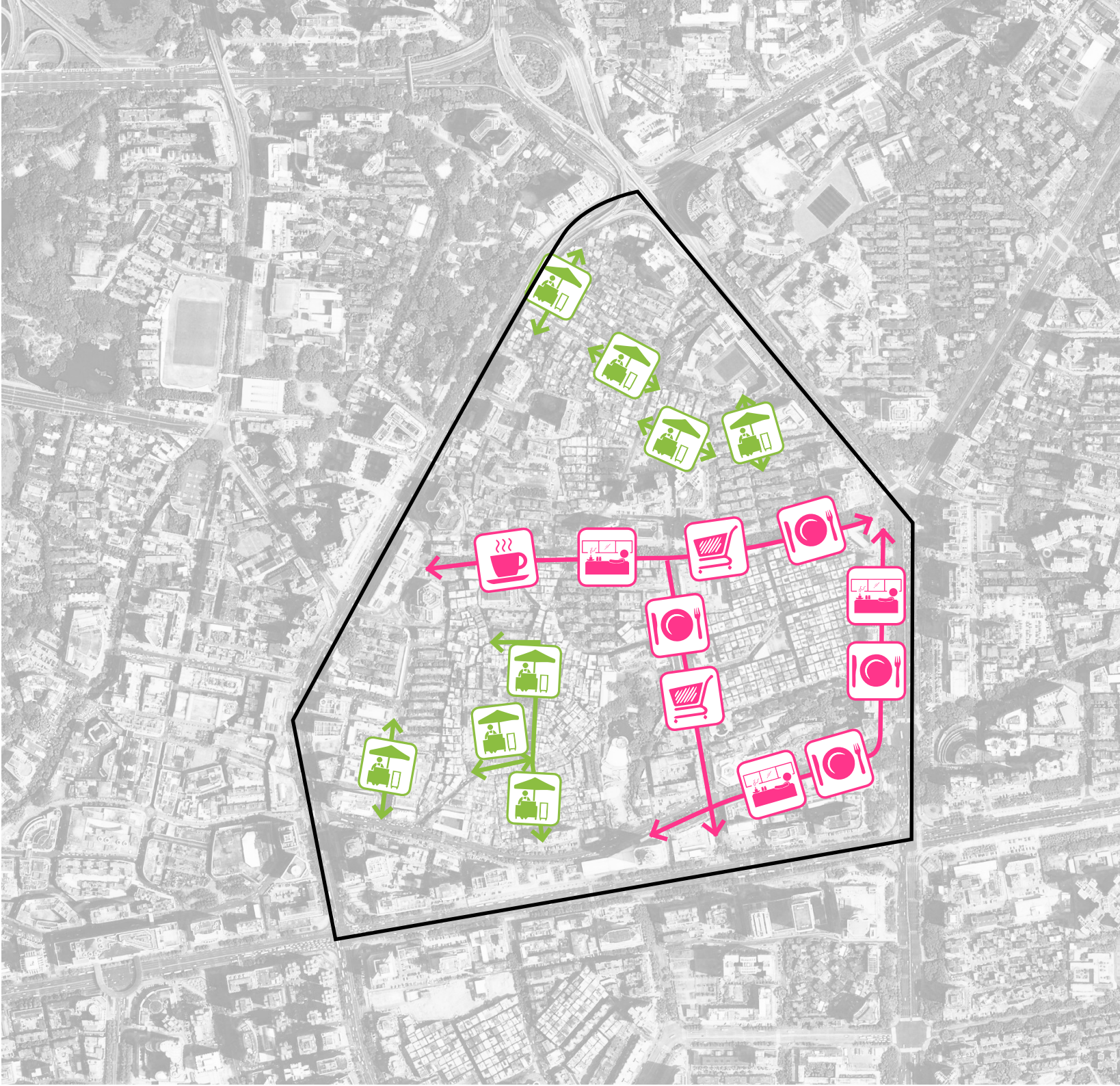




Separated life circles

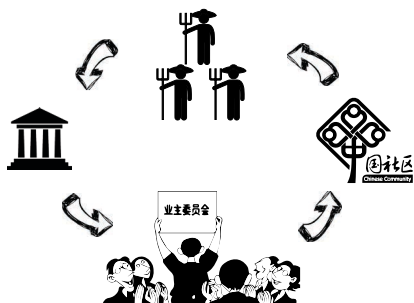
Problem  
Diagnosis

-  Restaurants
-  Supermarkets
-  Tea room
-  Recreation
-  Informal market



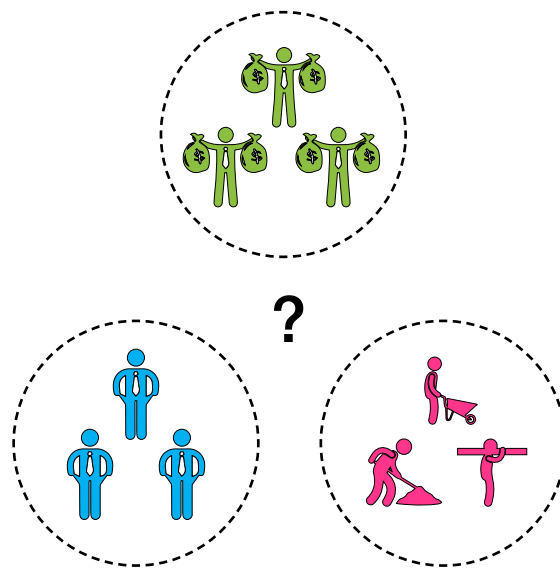


## Power fragmentaion



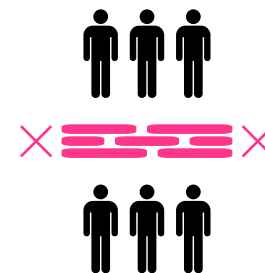
+

## Dual city character



+

## Physical boundary



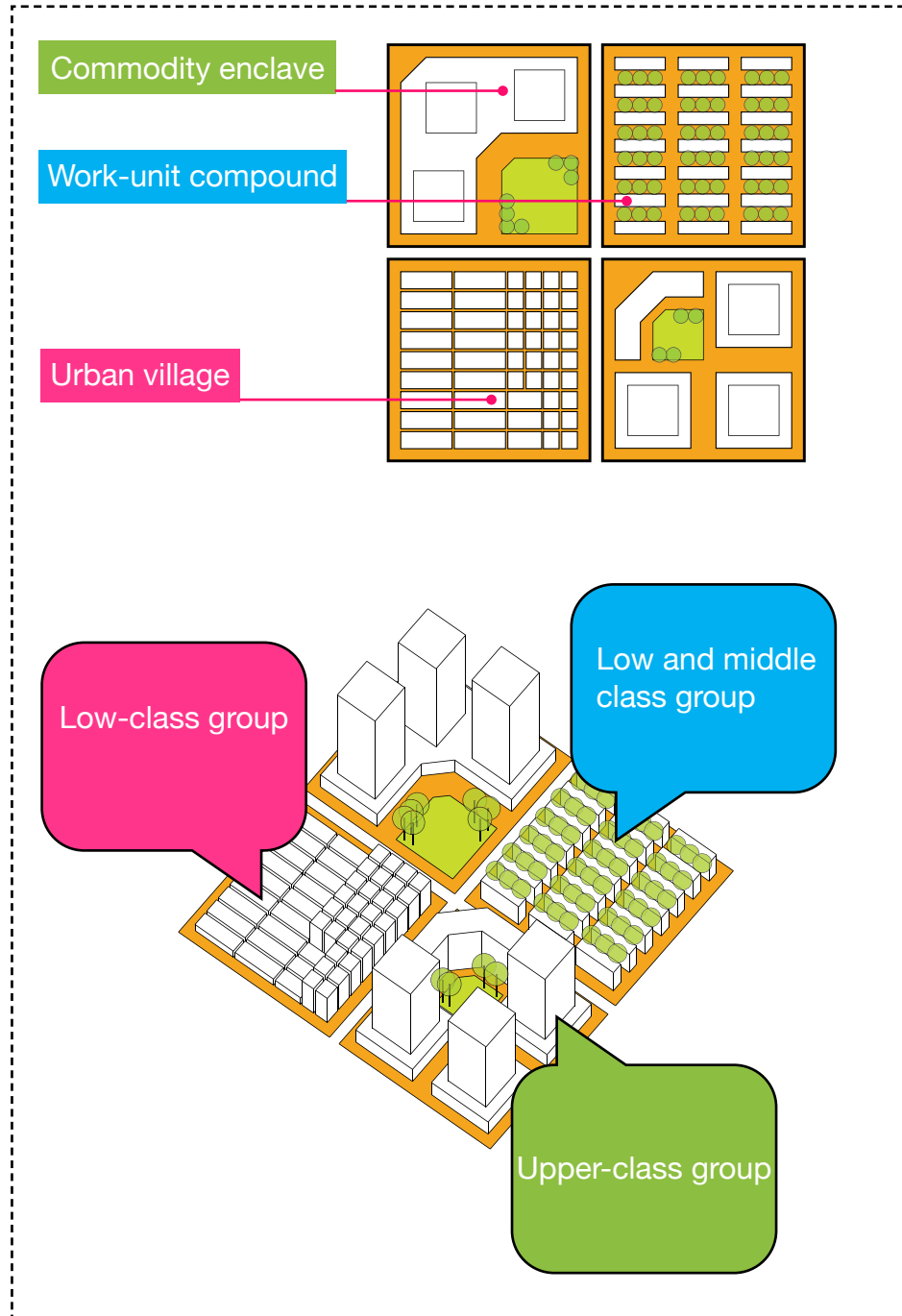
+

## Separated life circles



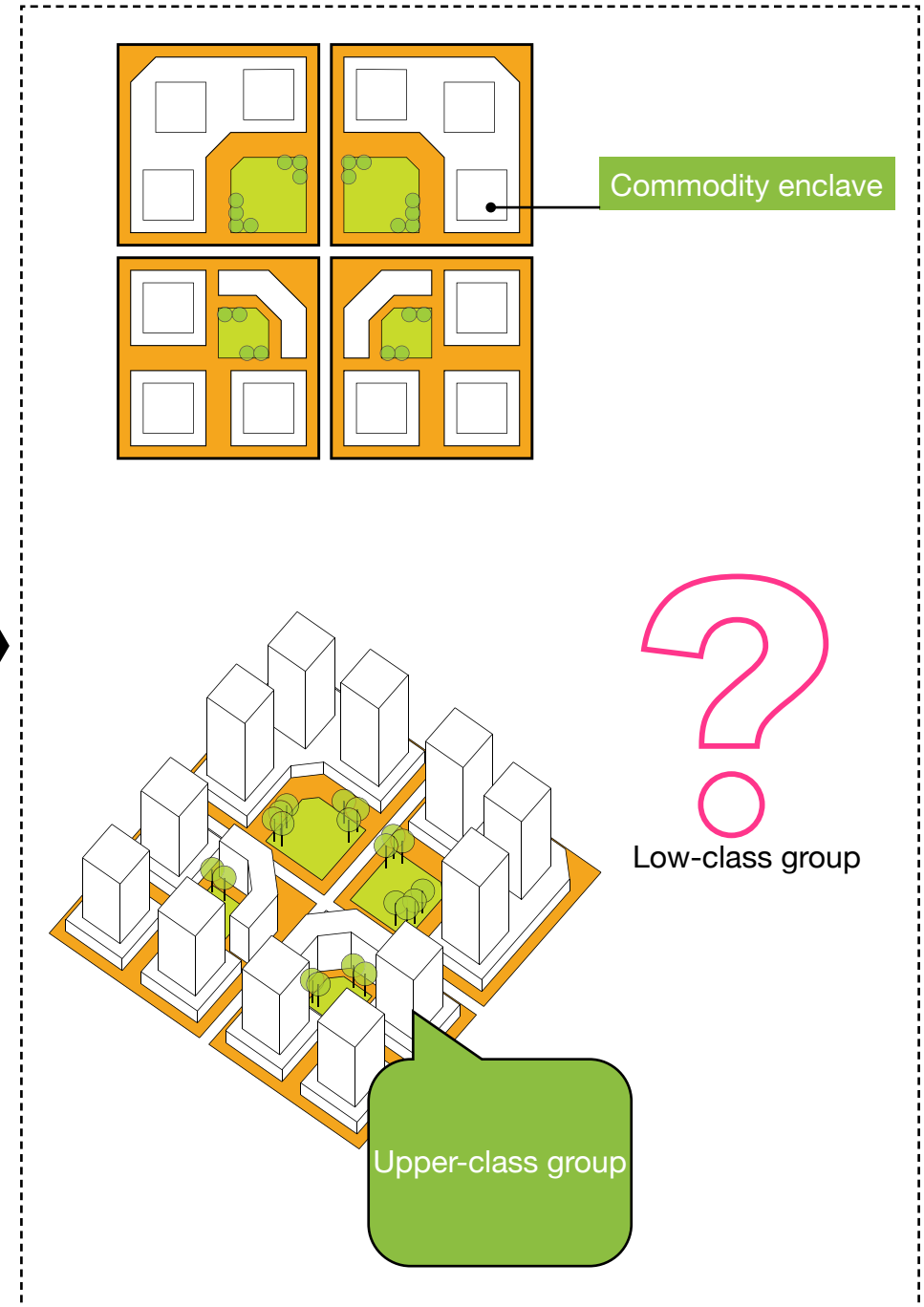
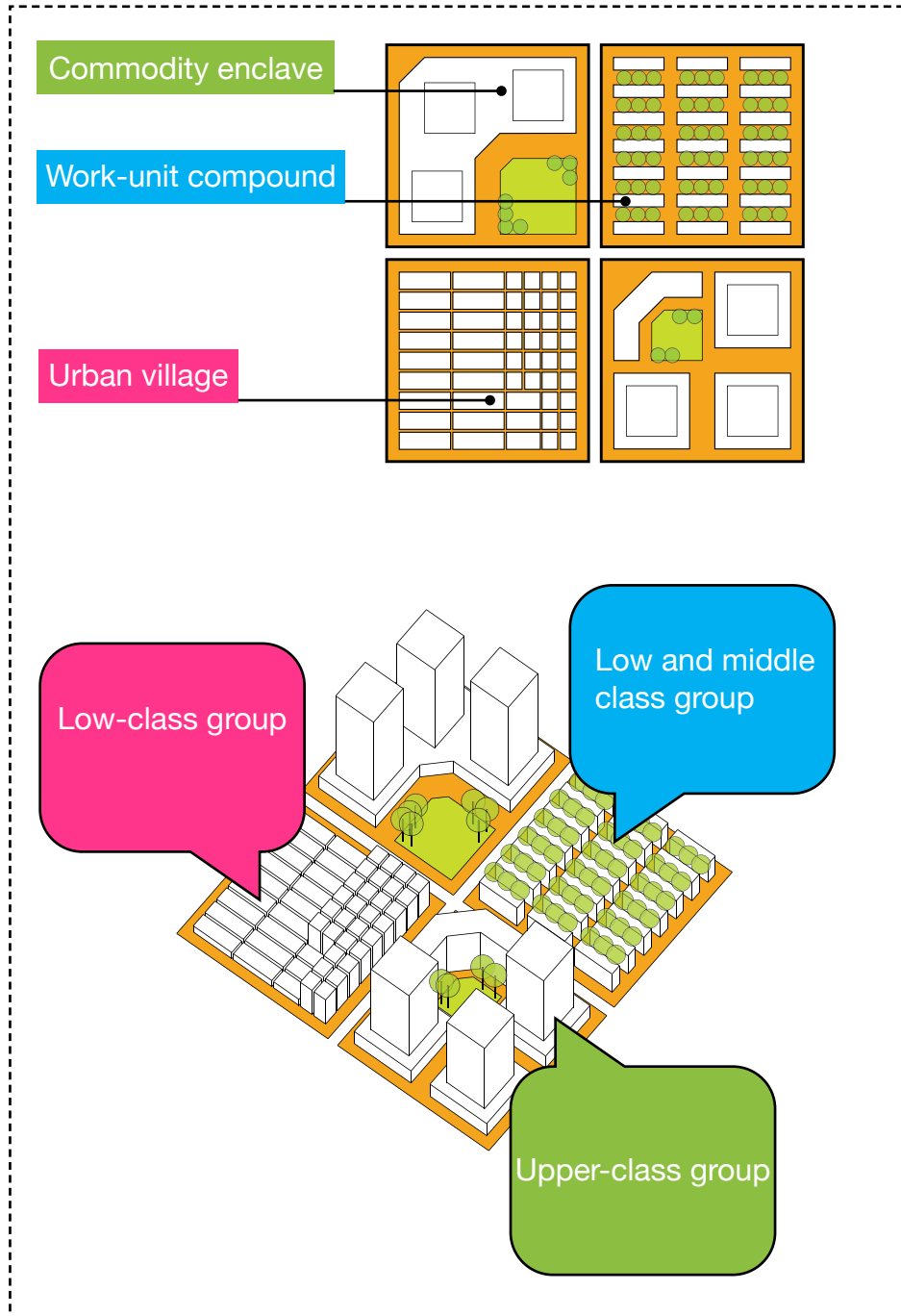


## Trends

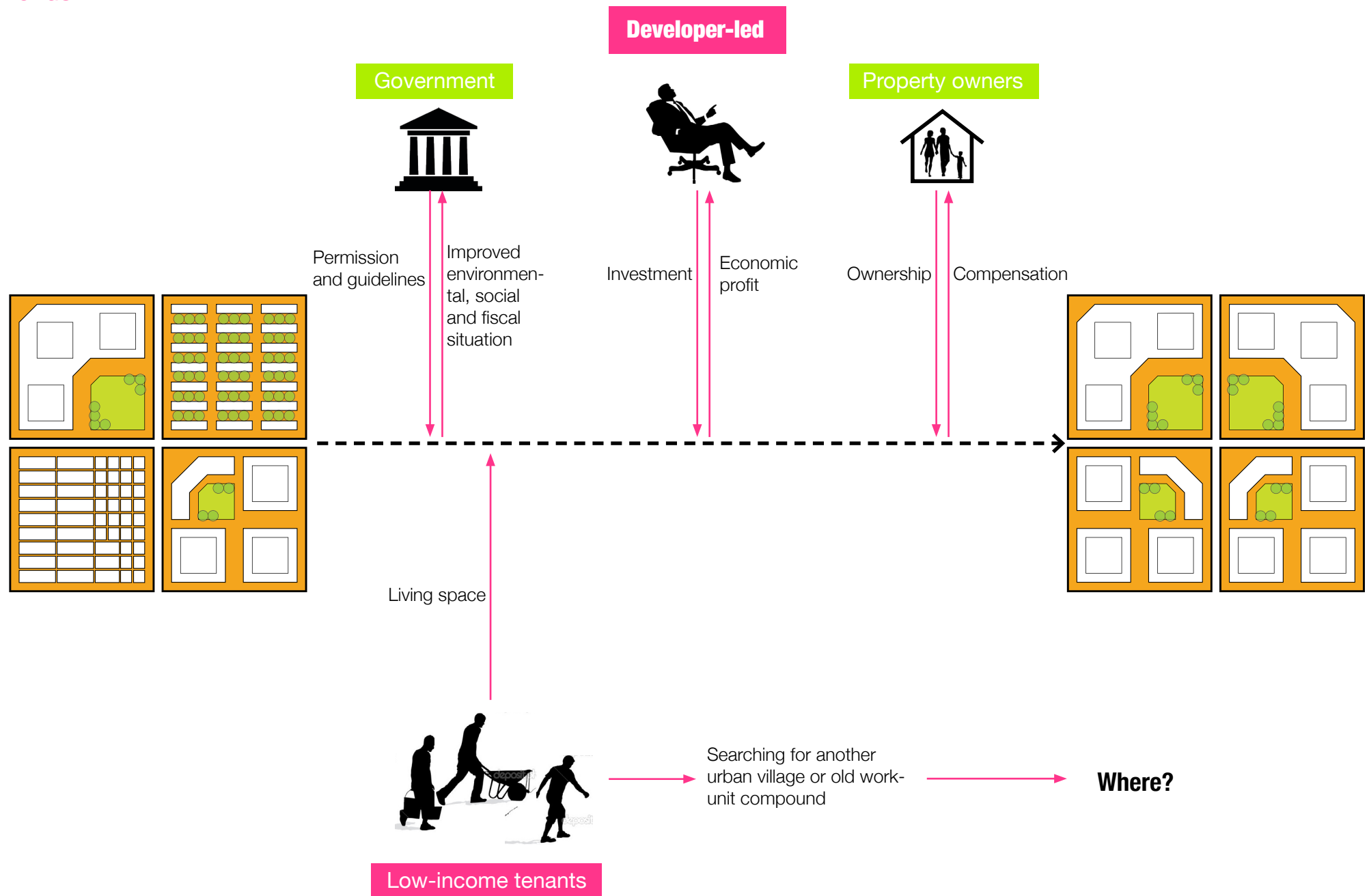




## Trends









Under the background of rapid and enormous urbanization and transformation in Shenzhen, urban segregation starts to emerge due to the increasing **social and spatial disparities**. Low-income migrants live in urban villages and degrading work-unit compounds without adequate public facilities, while high-income groups concentrate in commodity enclaves with gardens and private clubs, which cannot be accessed by outsiders. The **lack of interaction** among different social groups can be seen as a result of multiple barriers---power fragmentation, dual city character, physical boundary and separated life circles. The growing social and spatial inequity may limit one's access to information and resources, cause increasing discrimination of under class groups, and eventually incomplete participation in society (Musterd, 2005). In order to improve the low-quality urban environment, these areas are becoming the focus of urban regeneration area for government. But the current regeneration process results in similar high-end building plots, which are **no longer affordable** for low-income groups. They have to move further from the city centre searching for other cheap places to live, making the segregation issue even severer.



## Project aim

According to the problem of socio-spatial segregation described above, the main aim of this project thus is to **maintain** the current **social structure**, **facilitate interaction** between different social groups and **balance the interests** of all stakeholders through **public space** reconfiguration.



Main research question is:

What is **public space** reconfiguration method for a socio-spatial segregated **neighbourhood**, in order to make it attractive for residents of **all classes**?

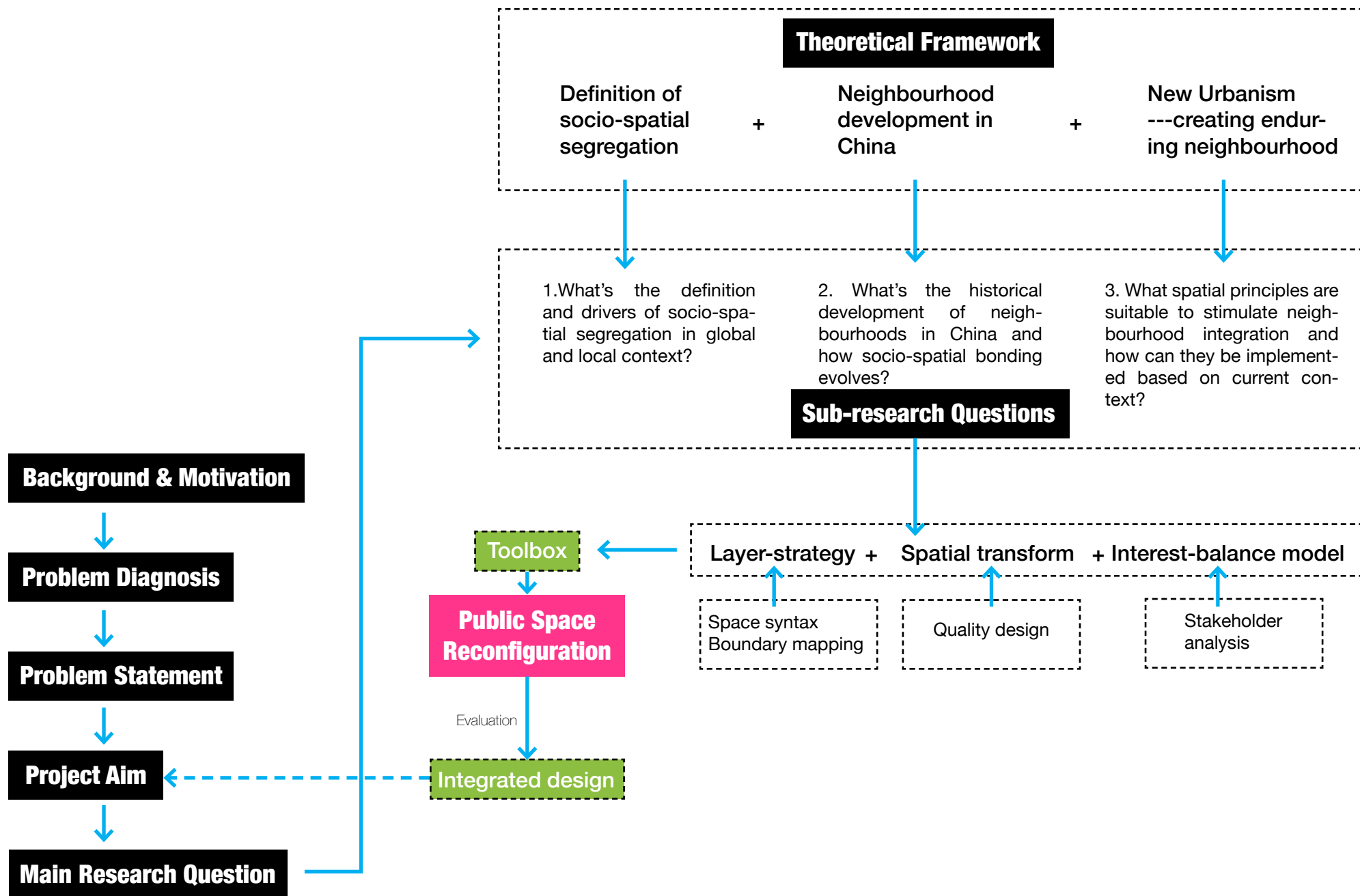
Sub-questions:

1. What's the definition and drivers of socio-spatial segregation in global and local context?
2. What's the historical development of neighbourhoods in China and how socio-spatial bonding evolves?
3. What spatial principles are suitable to stimulate neighbourhood integration and how can they be implemented based on current context?



# Part 3 Methodology









# Part 4 Theoretical Framework



## Socio-spatial segregation



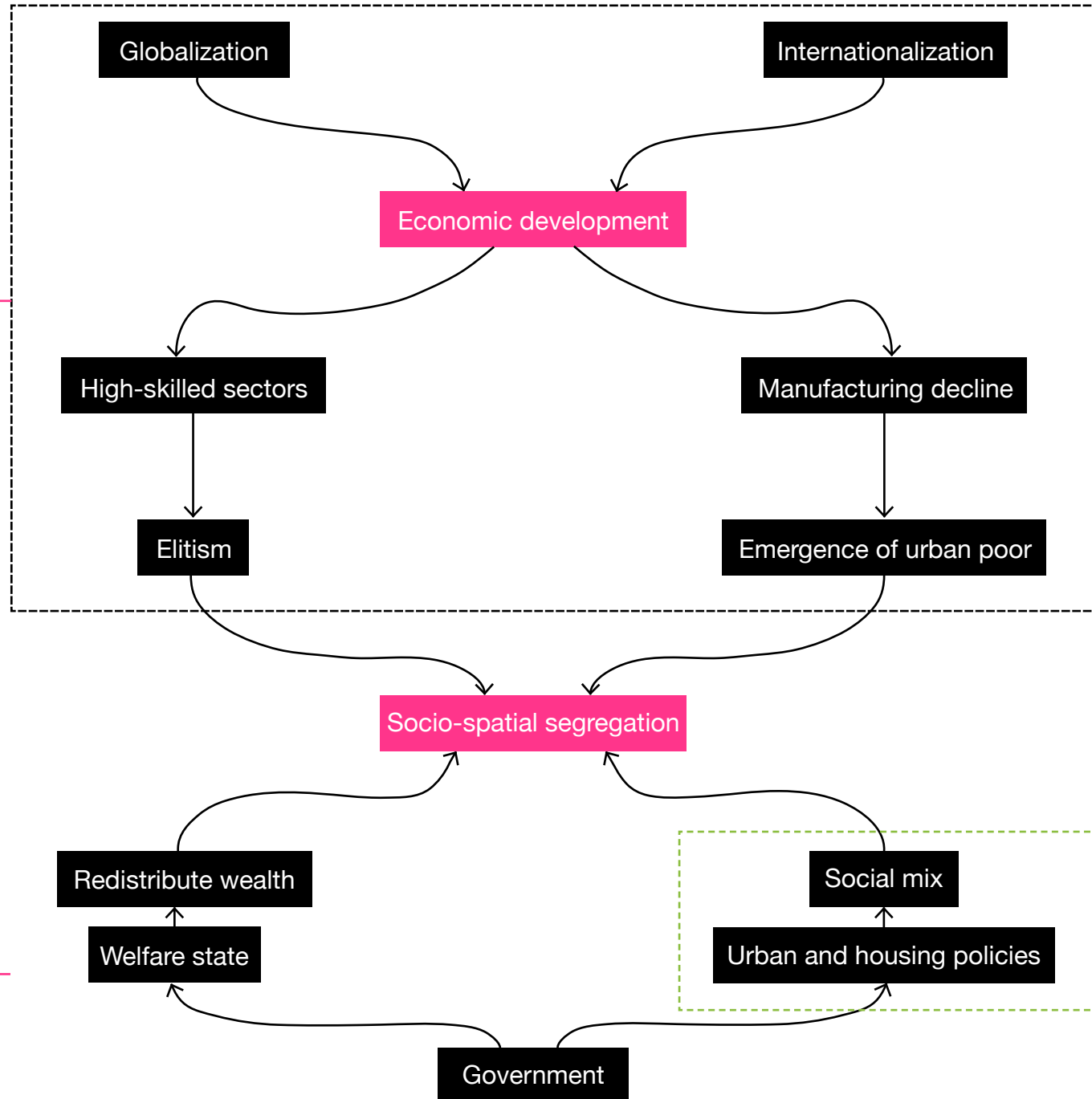
### Definition:

**Separation** between different social groups in an urban environment (Feitosa et al., 2007). When it reflects on spatial perspective, it results **unequal distribution** of population groups across space (Madrado and Van Kempen, 2012).



## Socio-spatial segregation

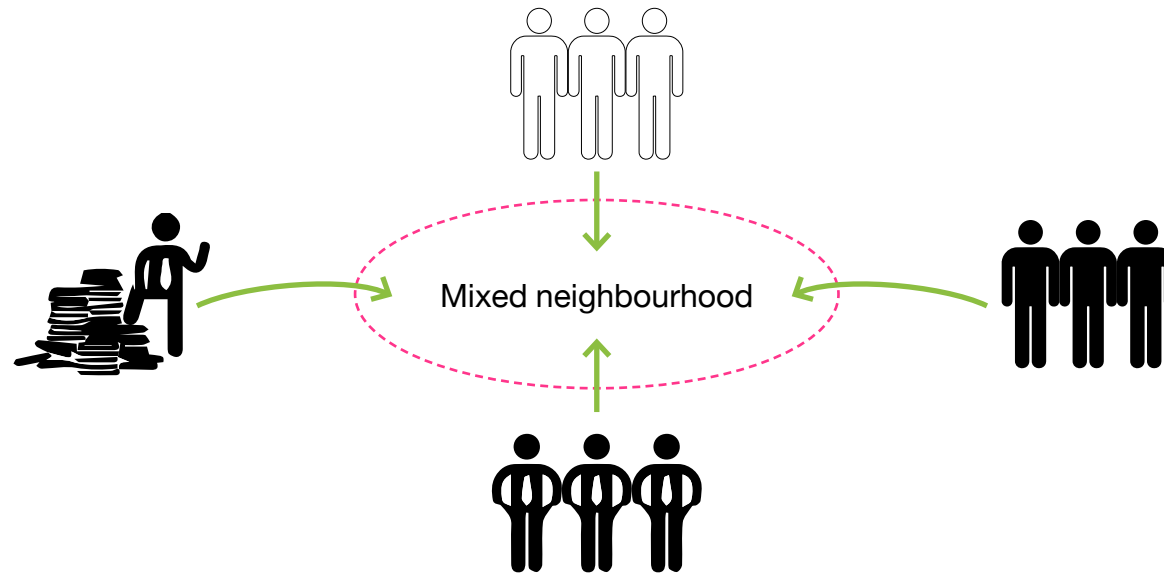
Driving force



Solution



## Socio-spatial segregation



Globalization trends: similar mechanism---similar solution???---spatial proximity does not reduce social distance!!! (Chamboredon & Lemaire, 1970)

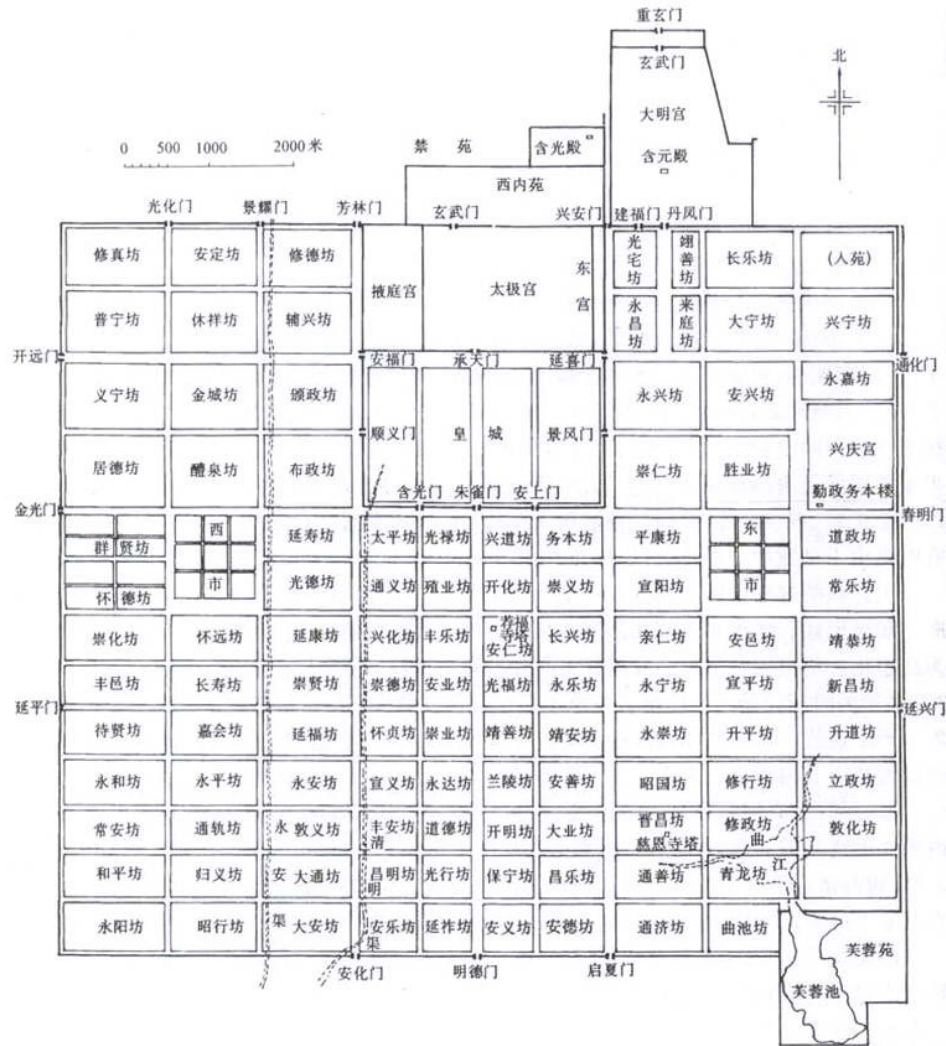


**Adjust to local context!!!**



## Neighbourhood development in China---Pre-socialist era (before 1949)

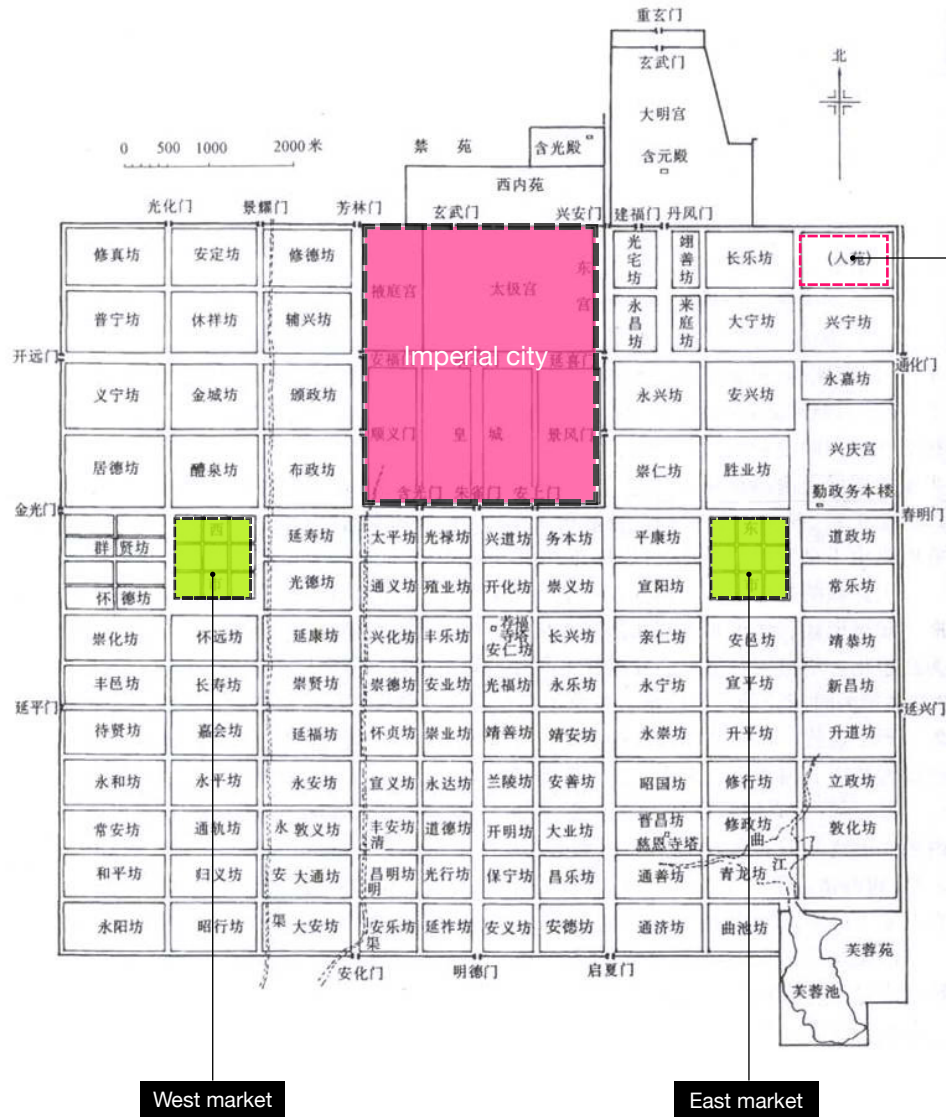
Chang'an city in Tang dynasty



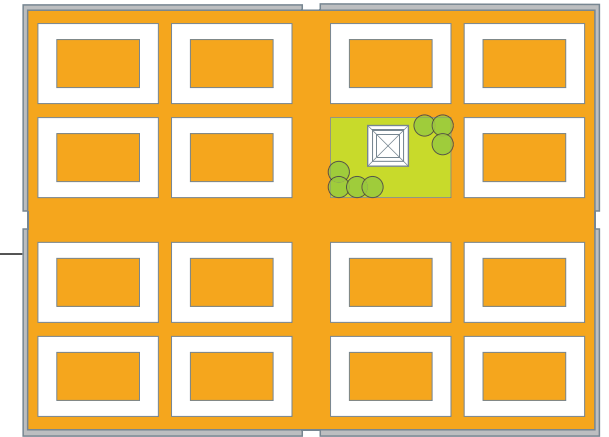


# Neighbourhood development in China---Pre-socialist era (before 1949)

Chang'an city in Tang dynasty

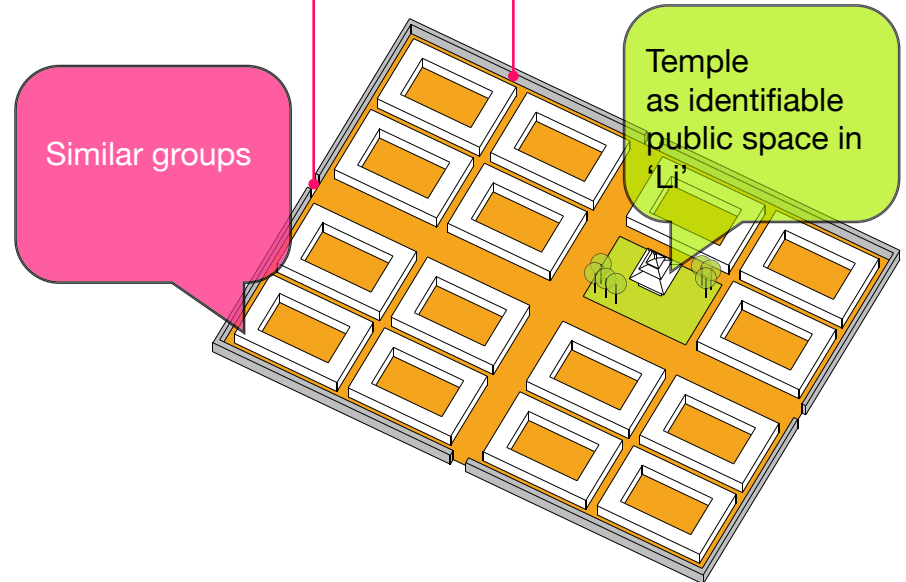


'Li' neighbourhood



Walls

Gate

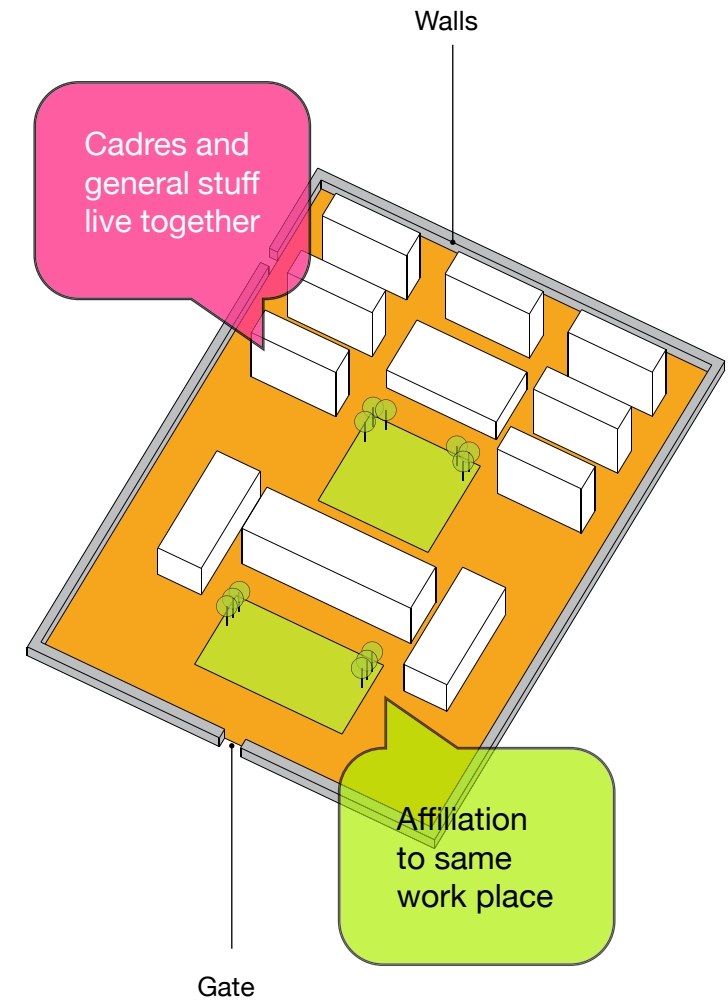
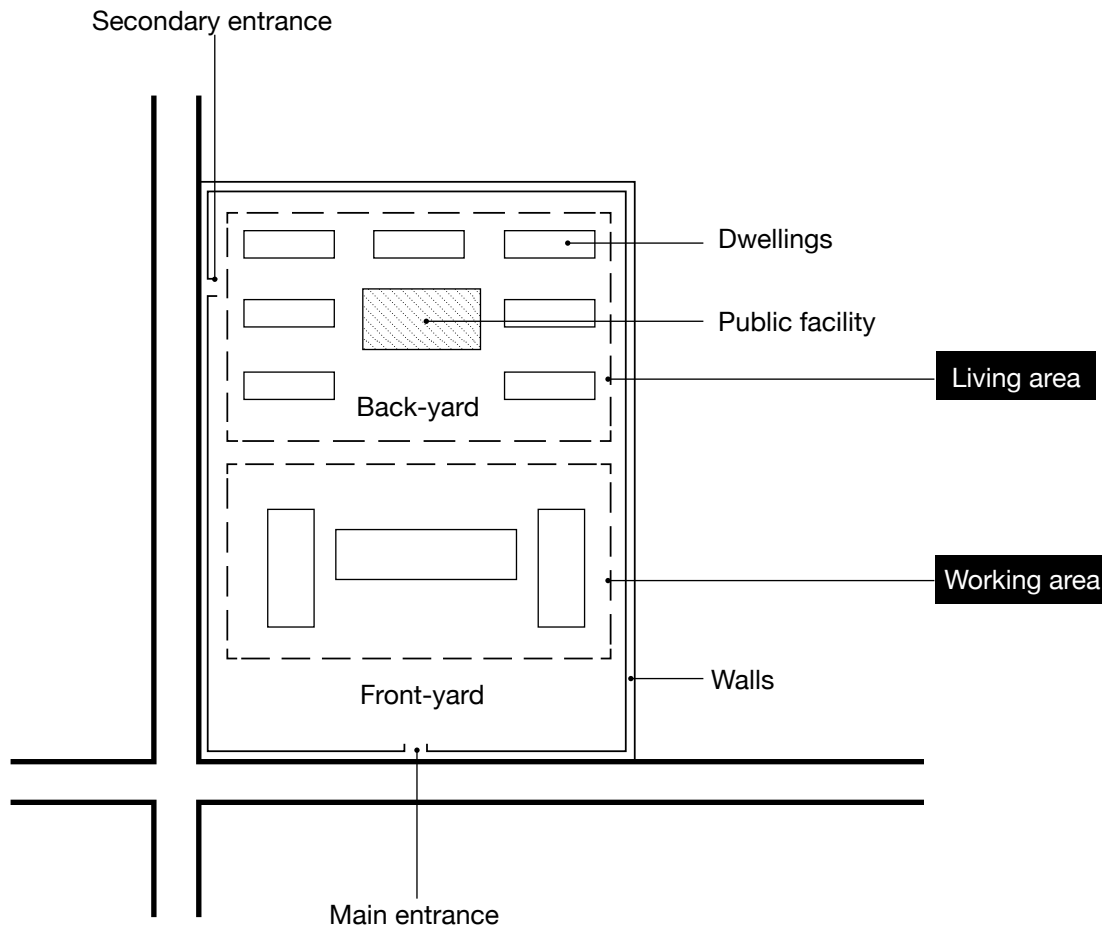




## Neighbourhood development in China---Planned economy era (1949-1987)

The typical spatial model of work-unit compounds

Source: Zhang, Chai & Zhou, 2009

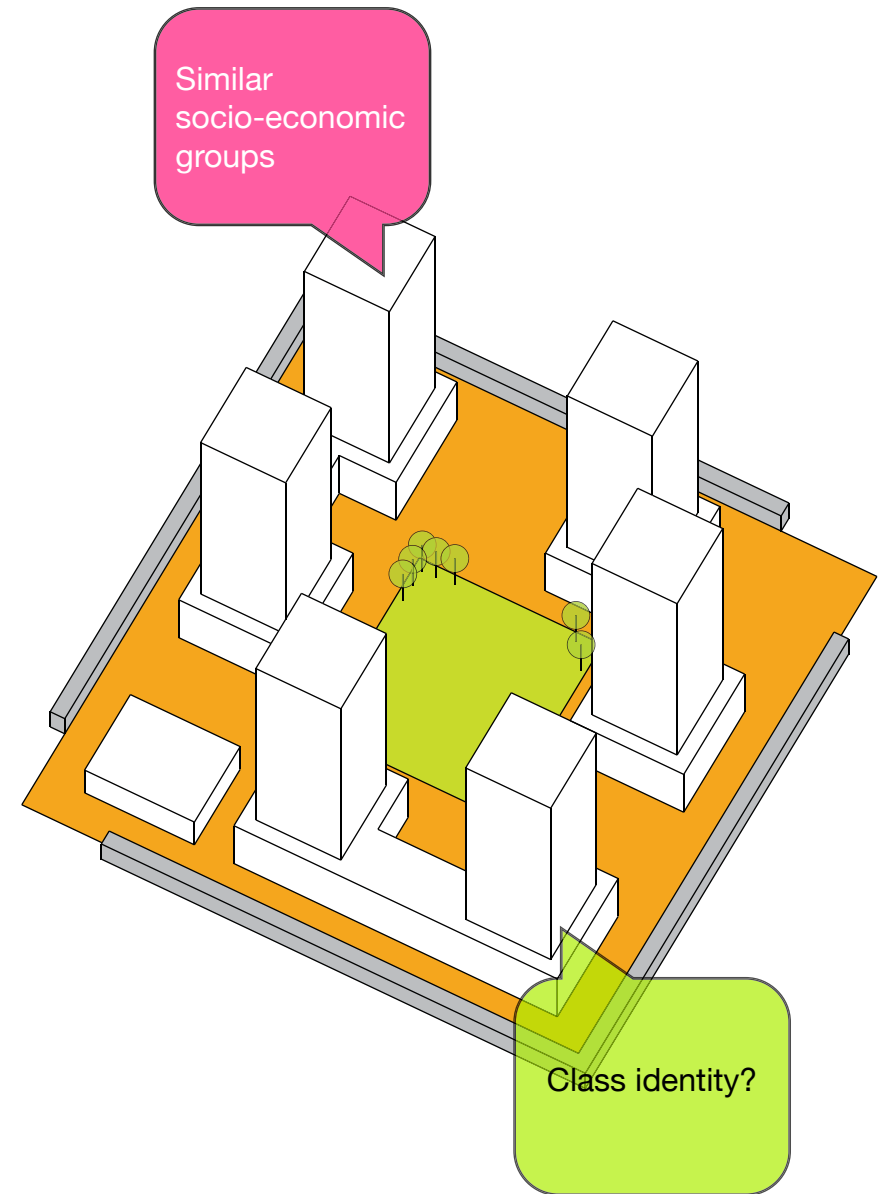
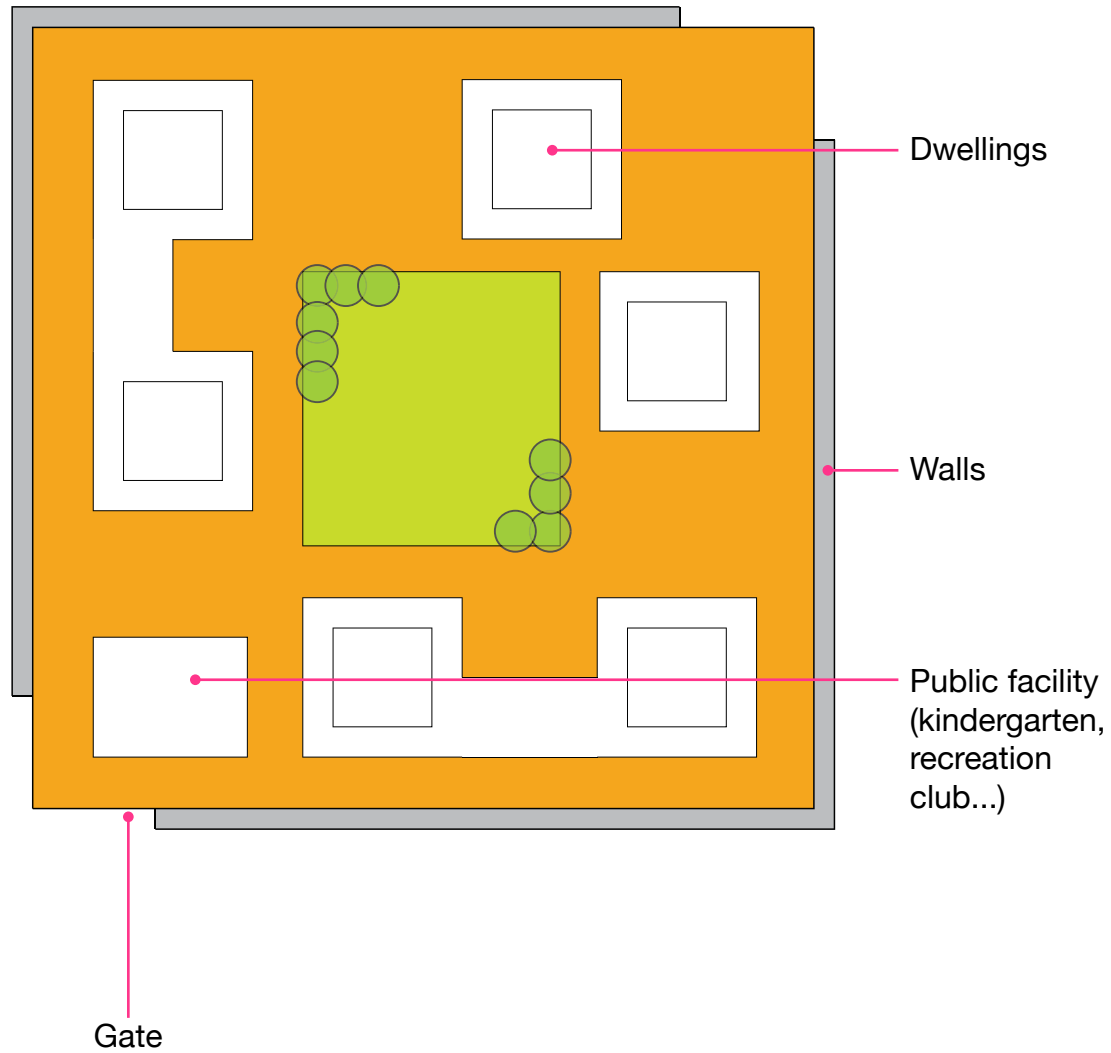




## Neighbourhood development in China---Market economy era (1987-now)

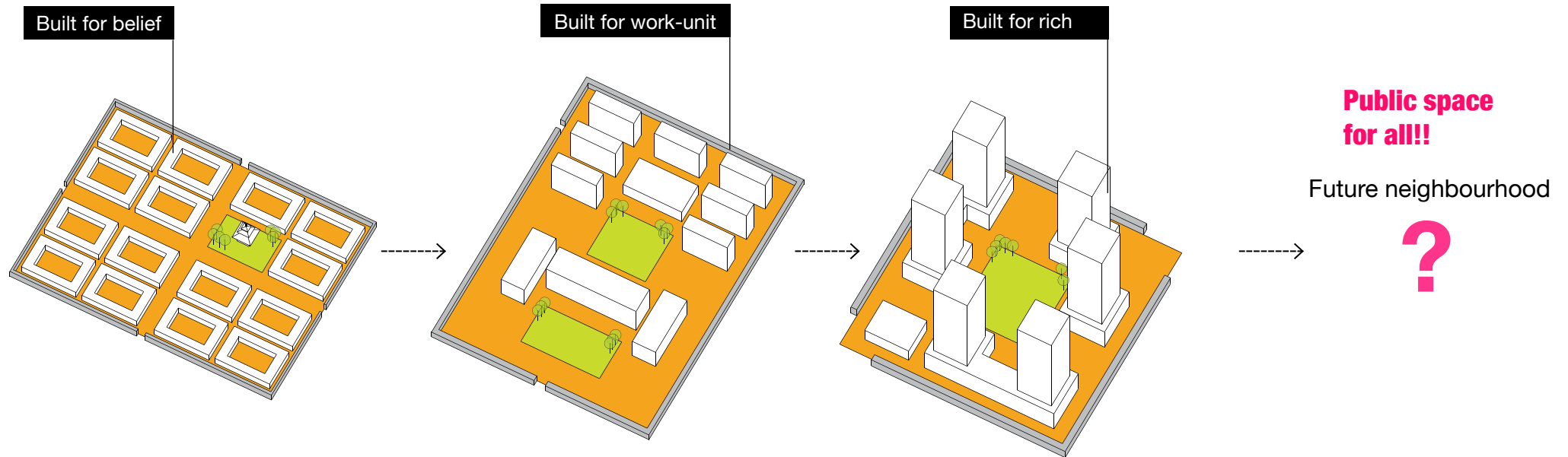
Commodity enclaves

Theoretical  
Framework





## Neighbourhood development in China





## New Urbanism---creating enduring neighbourhoods

Aim



The New Urbanism views **disinvestment** in central cities, the spread of placeless **sprawl**, increasing **separation** by race and income, environmental **deterioration**, loss of agricultural lands and wilderness, and the erosion of society's **built heritage** as one interrelated **community-building** challenge.





# New Urbanism---creating enduring neighbourhoods

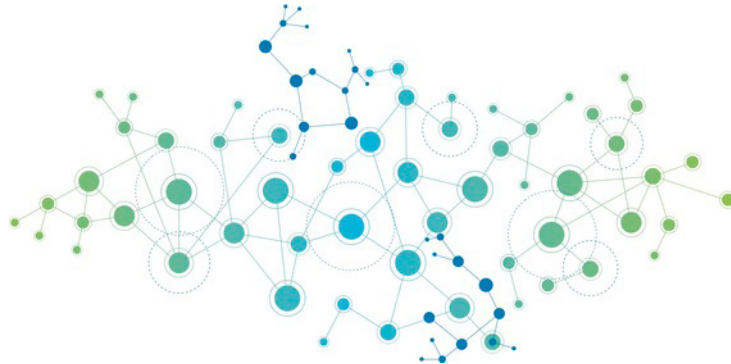
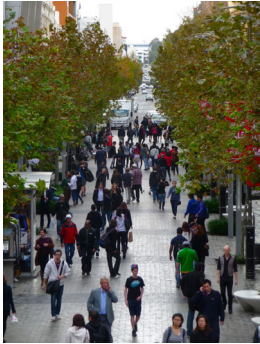
## Principles

- 1) The **neighbourhood**, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take **responsibility** for their maintenance and evolution.
- 2) Neighborhoods should be **compact, pedestrian friendly, and mixed-use**. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
- 3) Many activities of **daily living** should occur within **walking distance**, allowing independence to those who do not drive, especially the elderly and the young. **Interconnected networks** of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
- 4) Within neighborhoods, a broad range of **housing types** and **price levels** can bring people of diverse ages, races, and incomes into **daily interaction**, strengthening the personal and civic bonds essential to an authentic **community**.
- 5) **Transit corridors**, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
- 6) Appropriate building **densities** and **land uses** should be within **walking distance** of transit stops, permitting public transit to become a viable alternative to the automobile.
- 7) Concentrations of civic, institutional, and commercial **activity** should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to **walk** or **bicycle** to them.
- 8) The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic **urban design** codes that serve as predictable guides for change.
- 9) A range of **parks**, from tot-lots and village greens to ball fields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighbourhoods and districts.



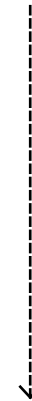
# New Urbanism---creating enduring neighbourhoods

Inspiration



- Walkability
- Connectivity
- Diversity
- Quality urban design

Contributing



**Socio-spatial integration**





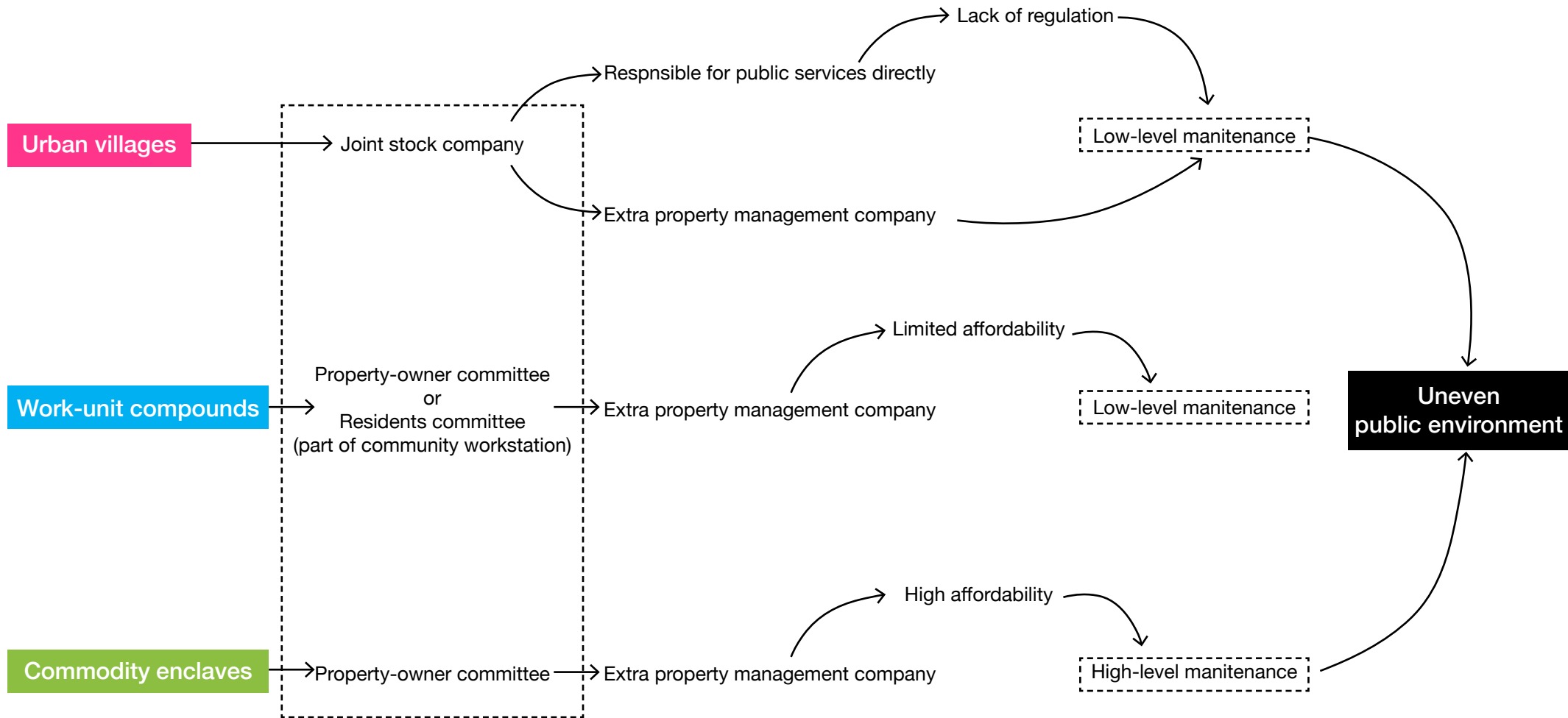
An architectural site plan of a university campus. A blue river winds through the center of the campus. To the bottom left is a large, oval-shaped stadium with a tiered seating area. Various academic buildings, some with circular or semi-circular designs, are scattered throughout. Green spaces with trees and winding paths are interspersed between the buildings. A tall, thin skyscraper is visible on the right edge of the plan. The text 'Part 5 Strategy & Intervention' is overlaid in the center, with 'Part' in black and '5' in a large, bold, pink font.

# Part 5 Strategy & Intervention



## Layer-strategy

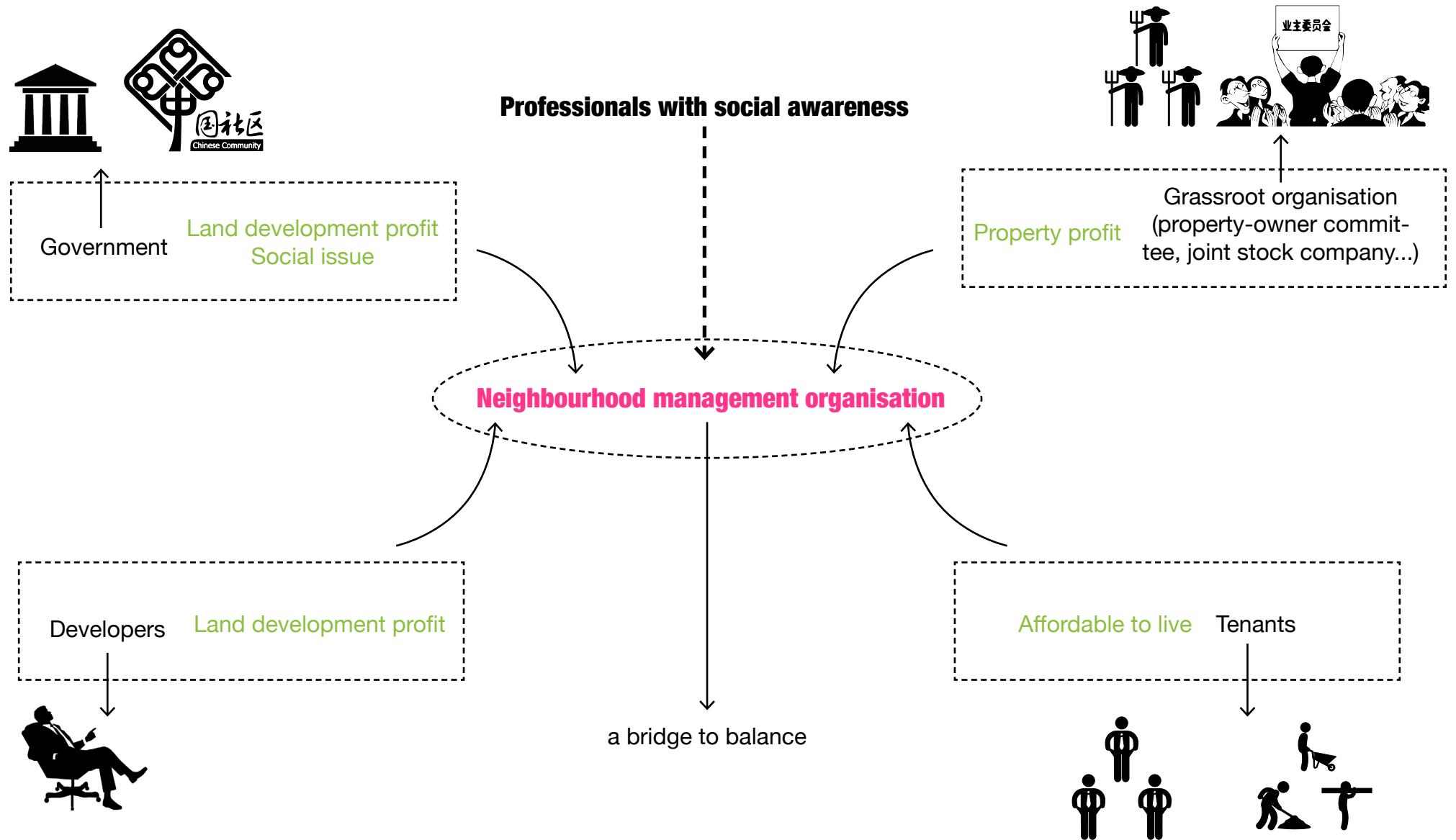
Power fragmentation





## Layer-strategy

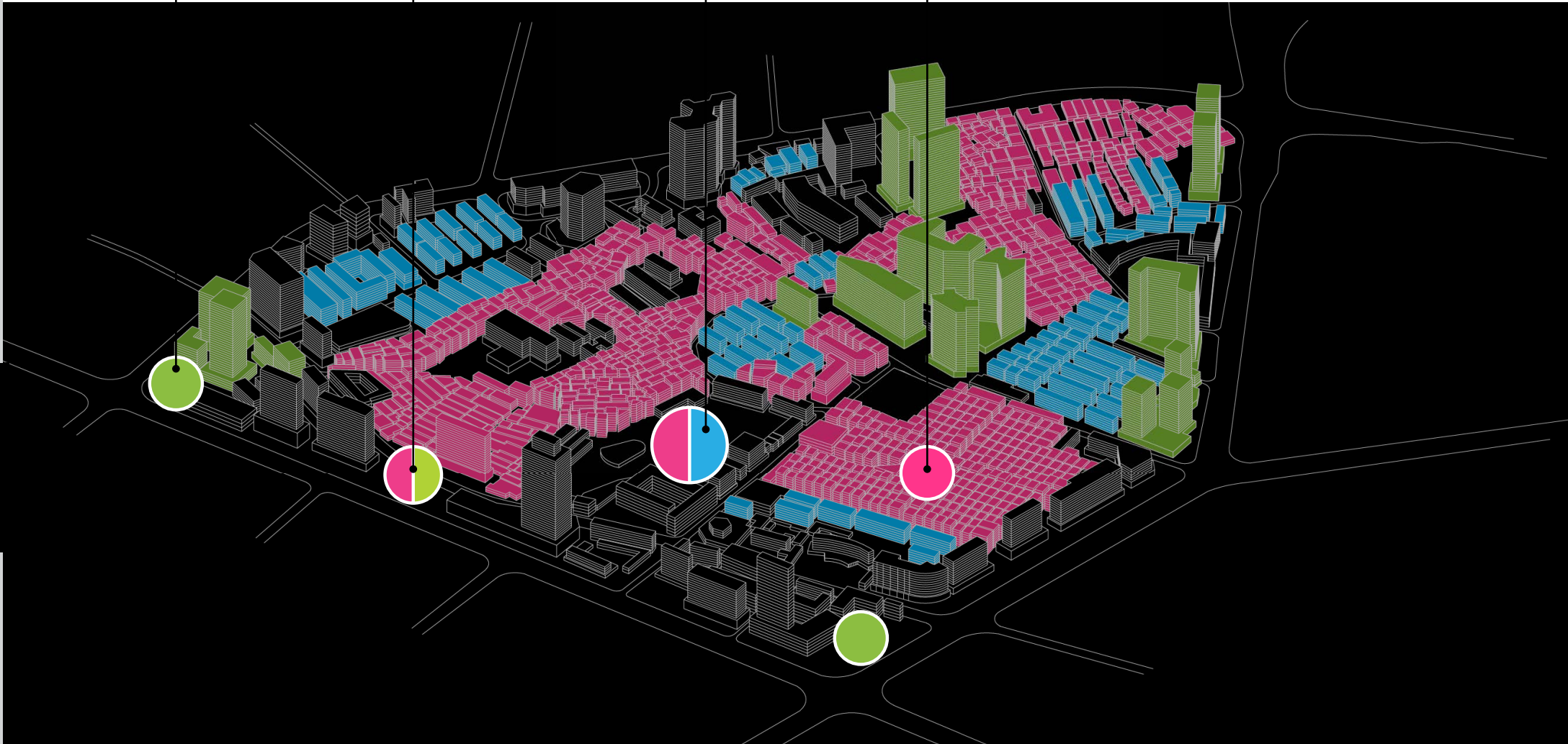
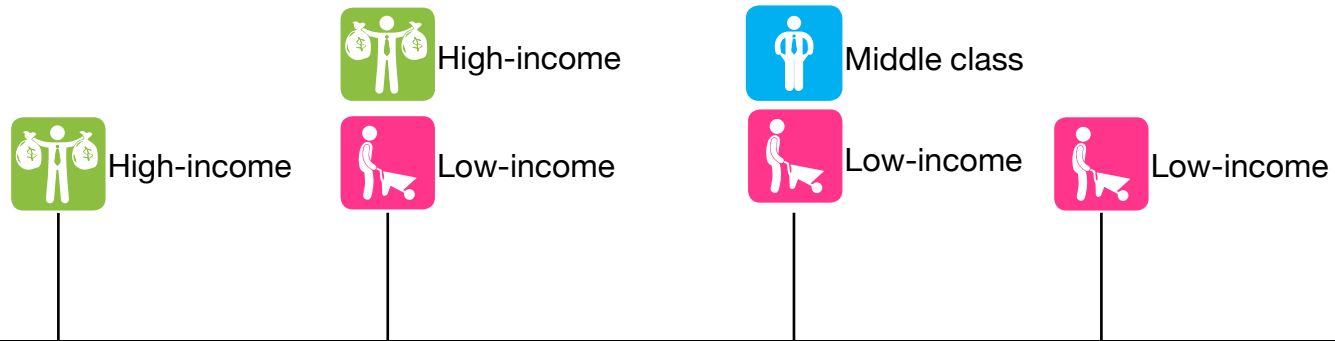
Power fragmentation





## Layer-strategy

Dual city character





## Layer-strategy

Dual city character



High-income



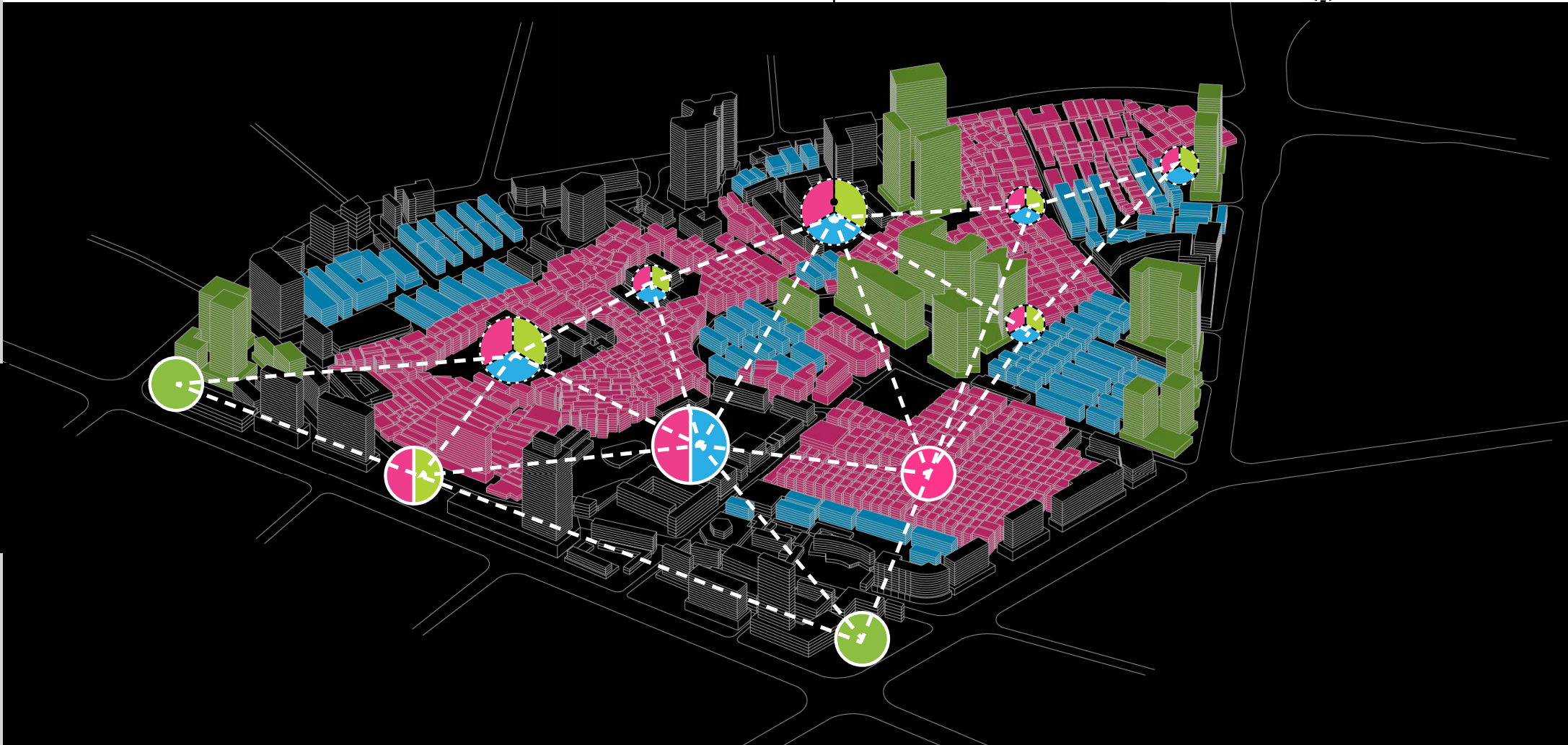
Middle class



Low-income



Proposed social space

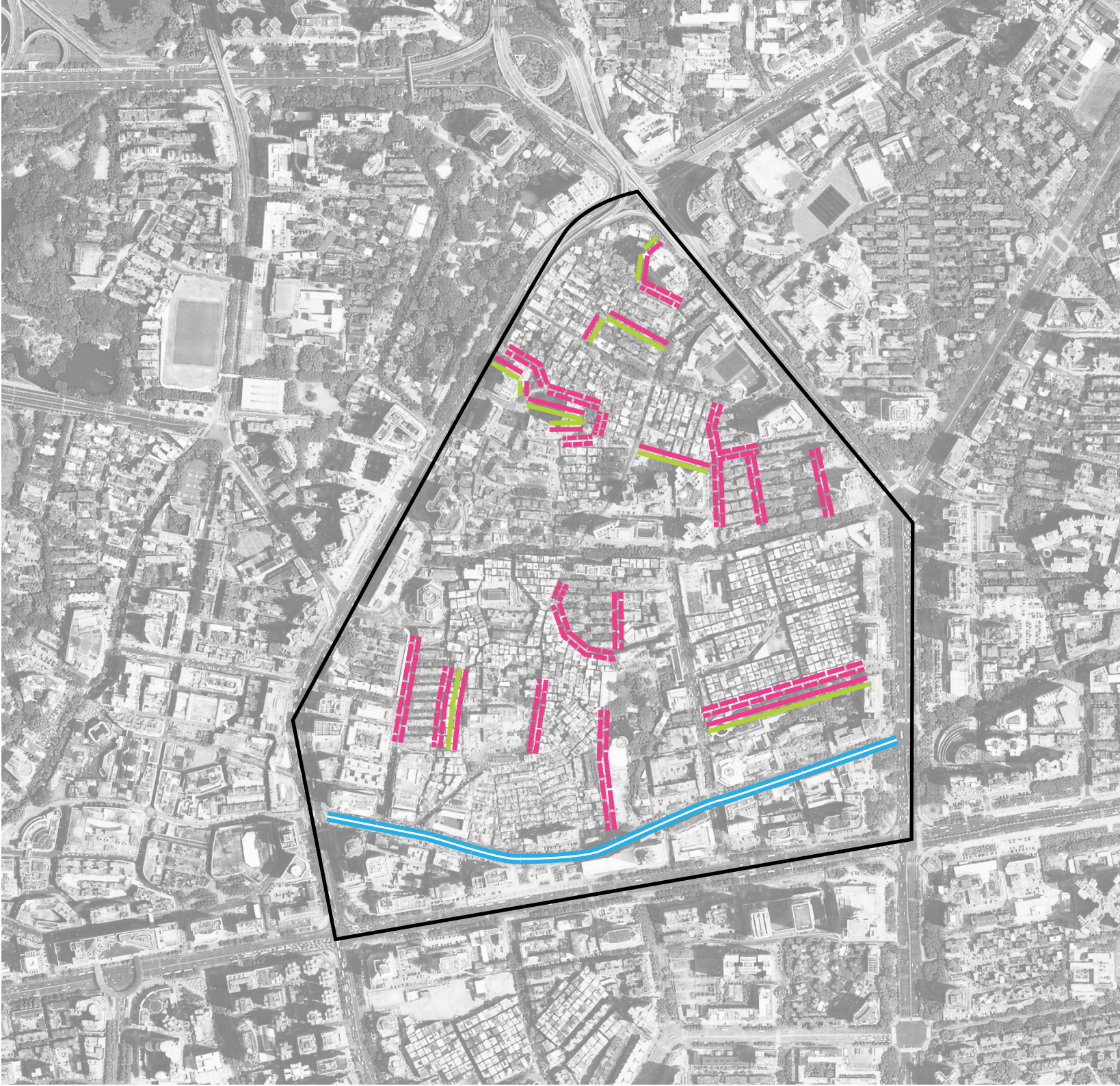




Layer-strategy

Physical boundary

- Walls and fences
- Infrastructure
- Distinct spatial quality



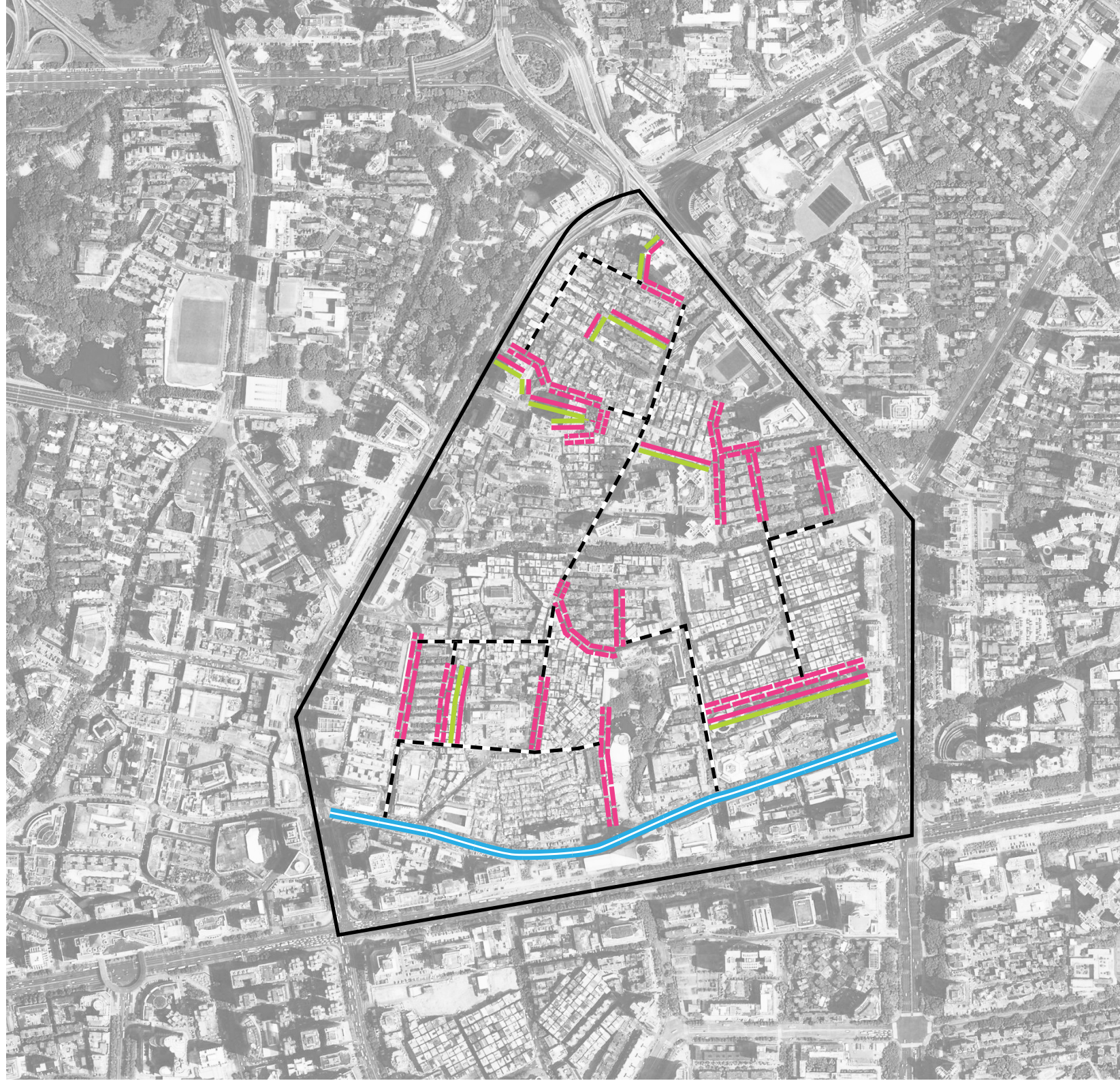


## Layer-strategy

Physical boundary



## Border involvement

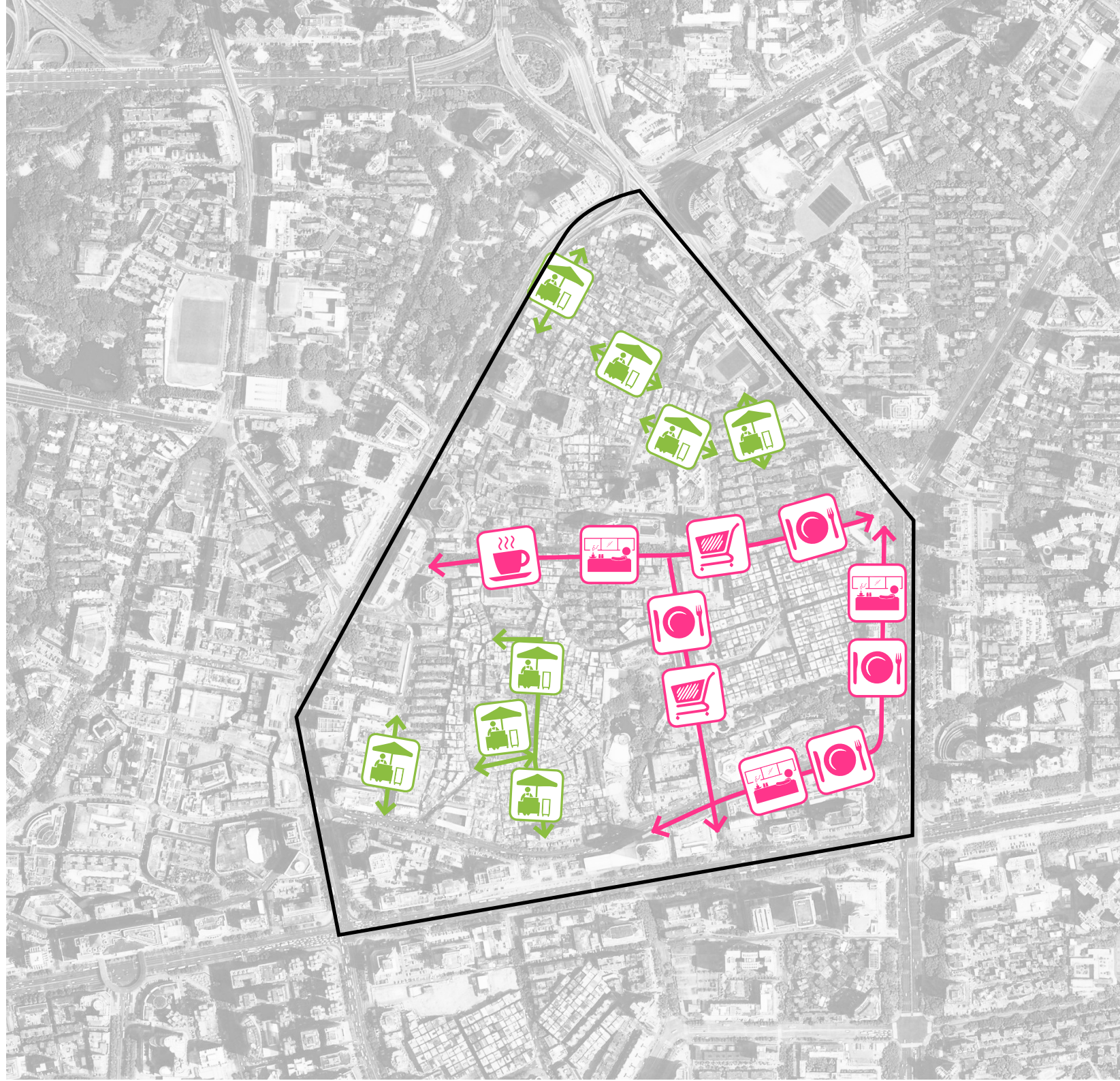




## Layer-strategy

Separated life circles

-  Restaurants
-  Supermarkets
-  Tea room
-  Recreation
-  Informal market





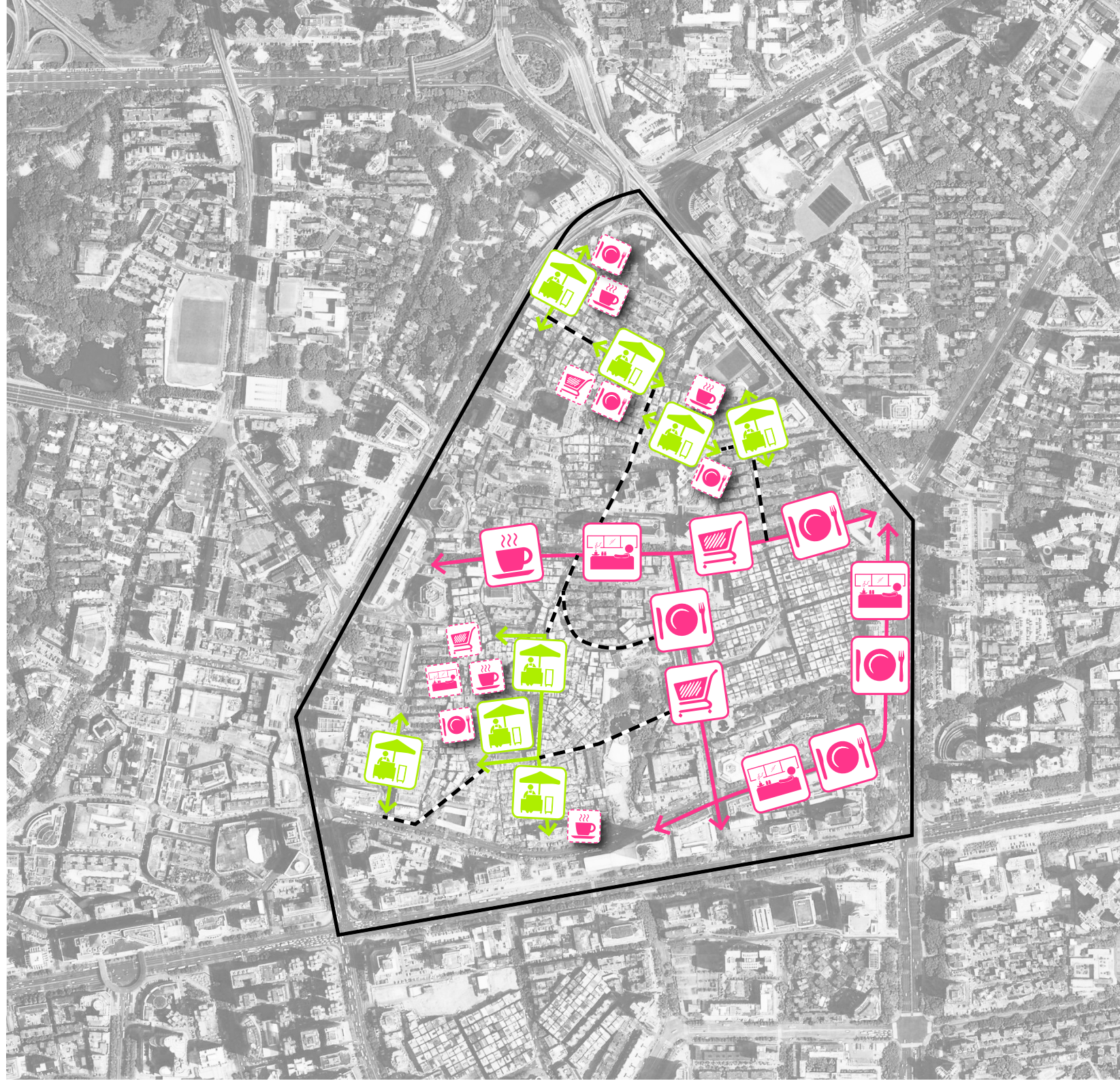
## Layer-strategy

Separated life circles



## Daily supply network

-  Restaurants
-  Supermarkets
-  Tea room
-  Recreation
-  Informal market





Layer-strategy

Daily supply network

+

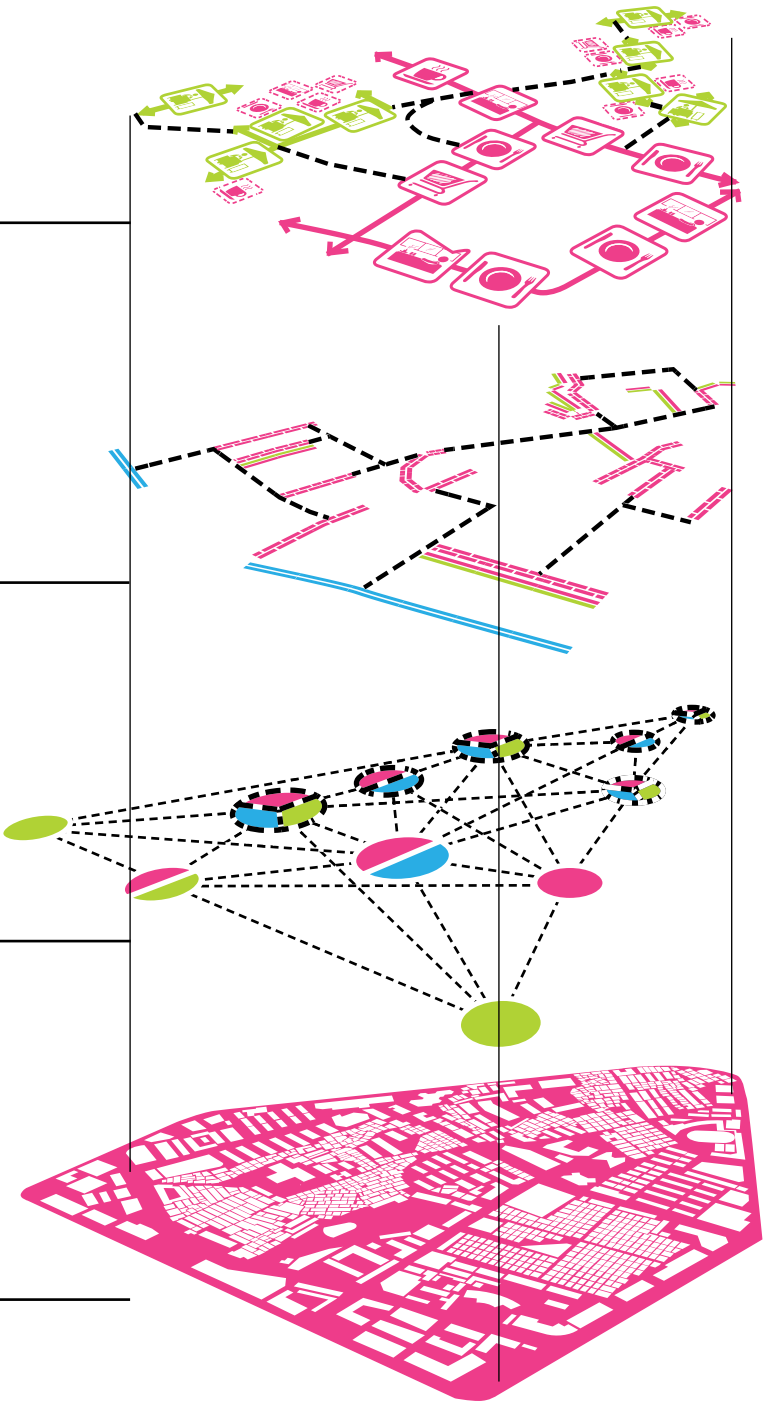
Borders involvement

+

Social space network

+

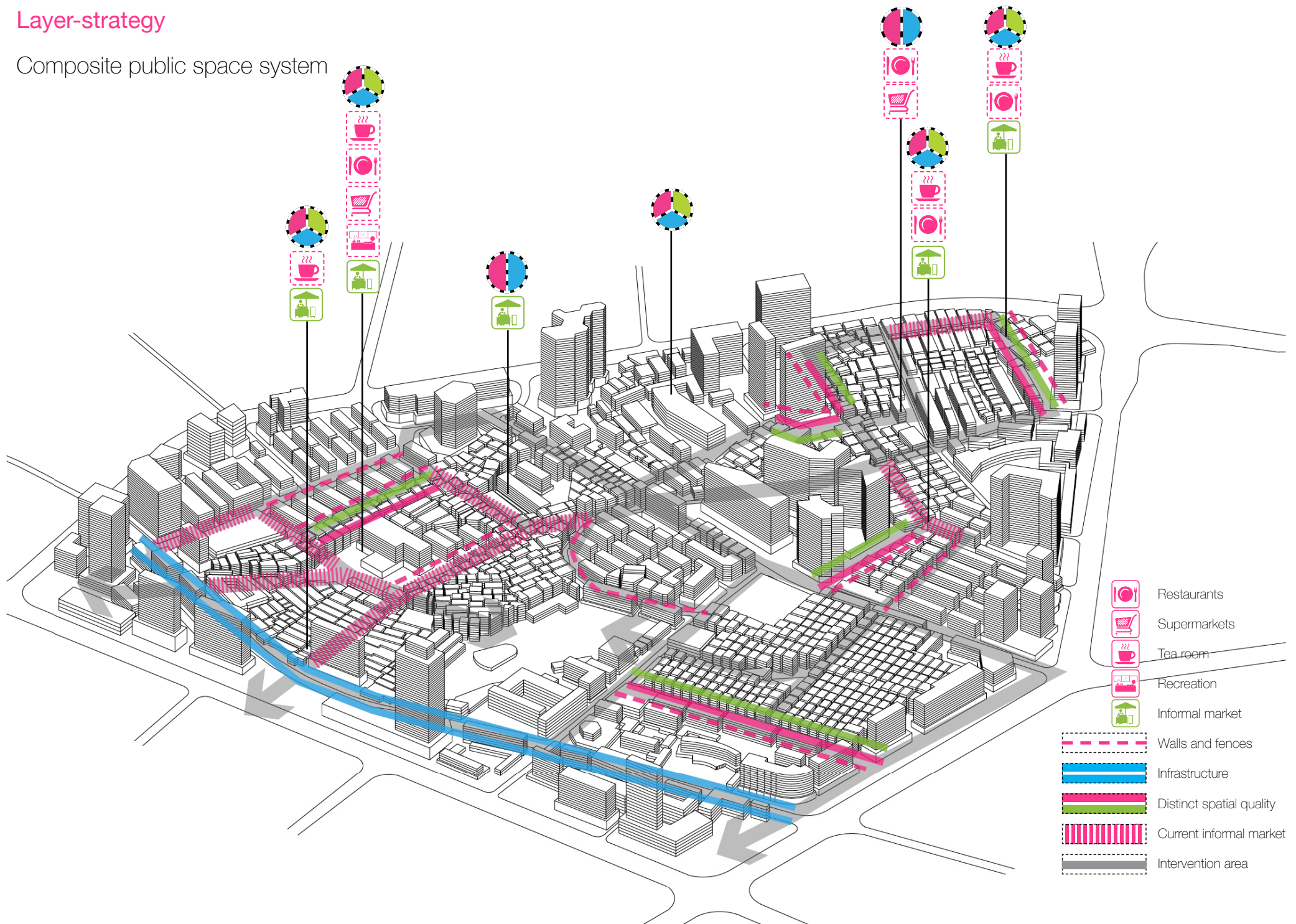
Neighbourhood Management Organisation





## Layer-strategy

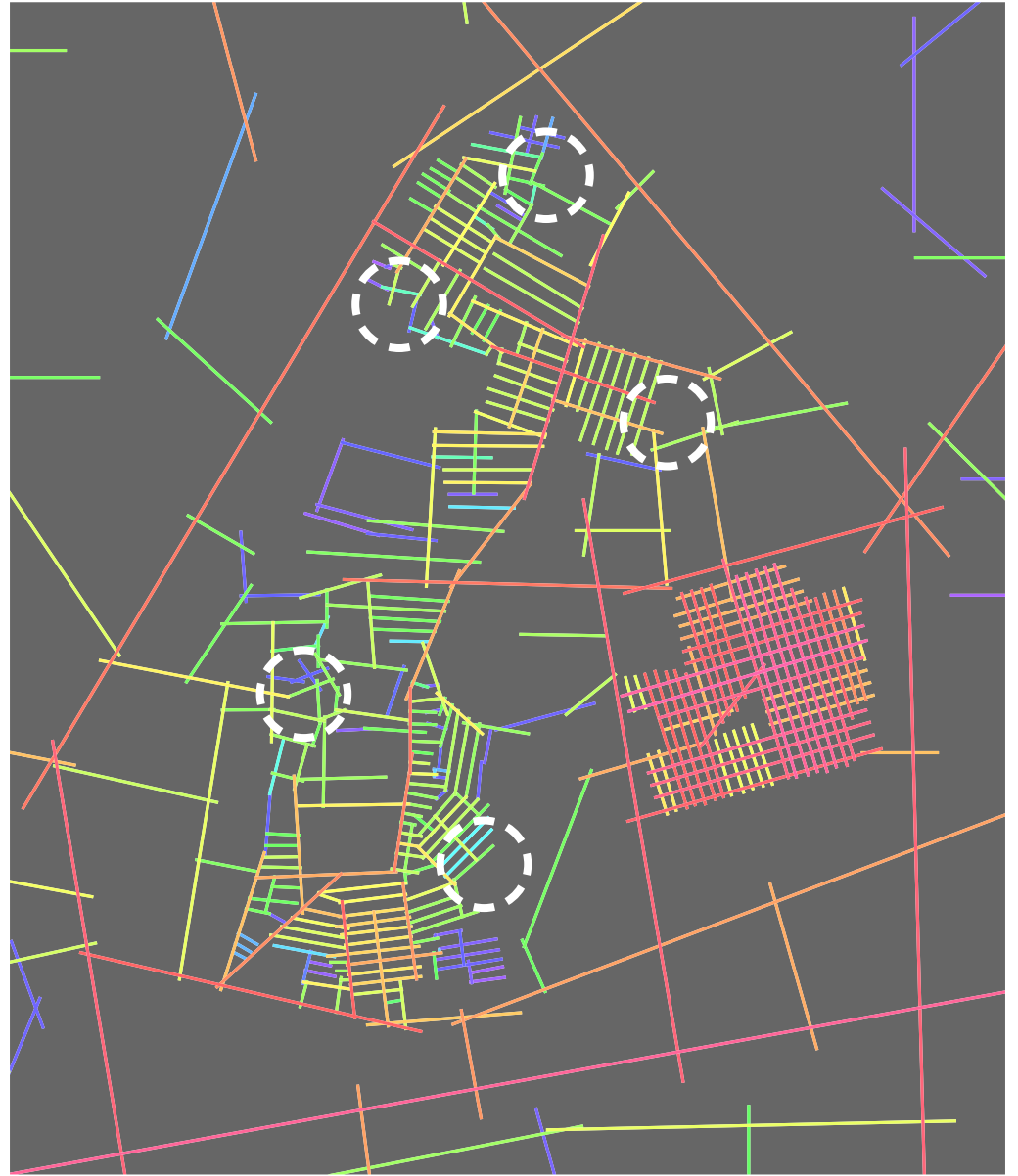
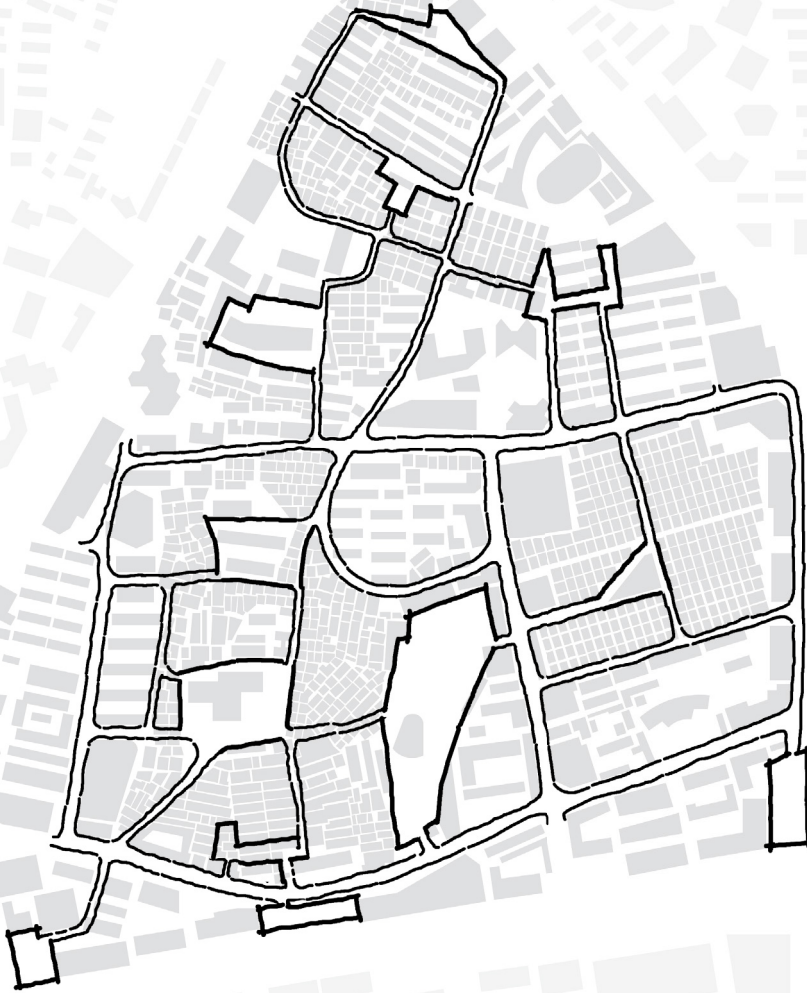
### Composite public space system



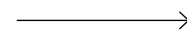


## Layer-strategy

Space syntax---Integration value



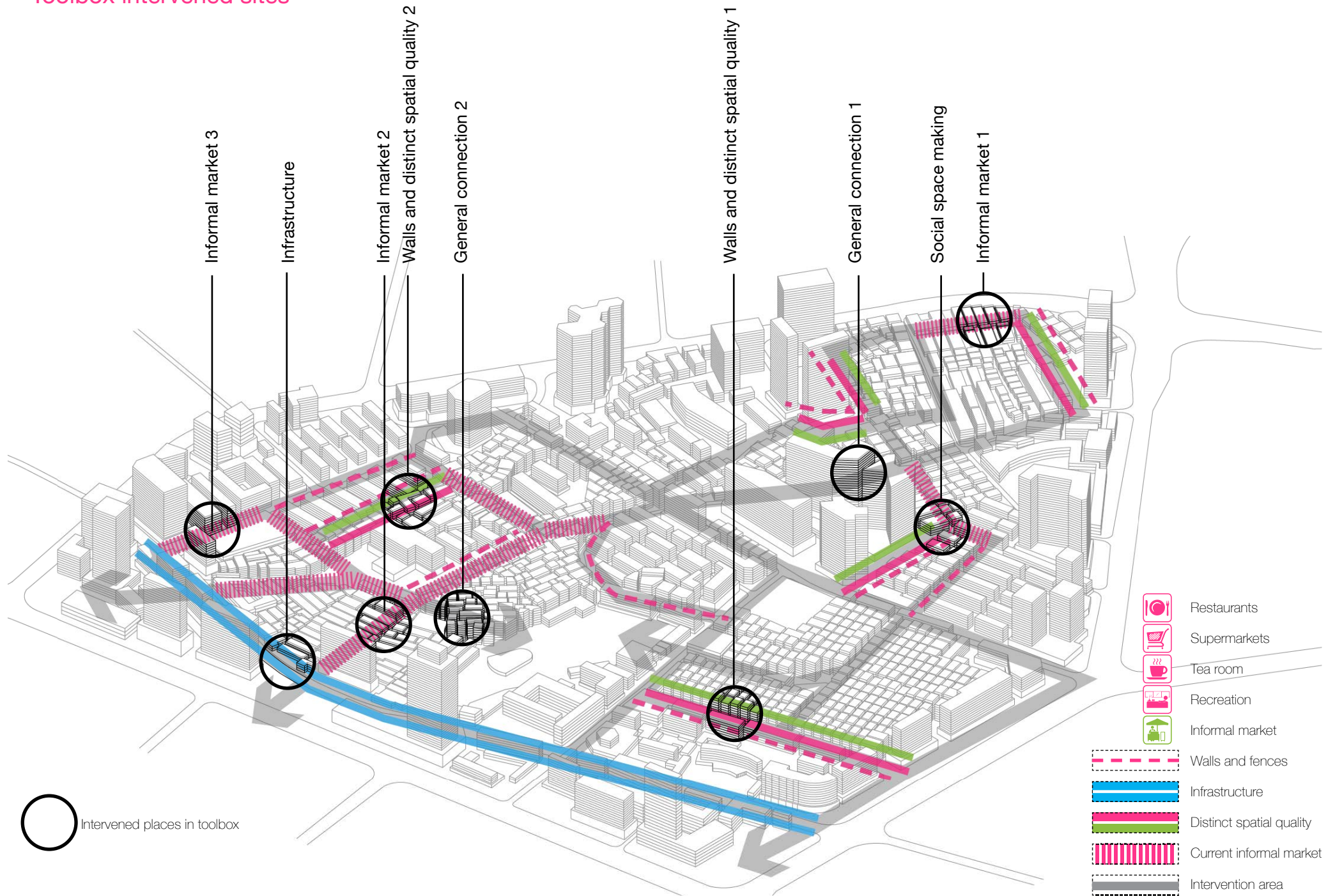
Low integration value



High integration value



## Toolbox intervened sites

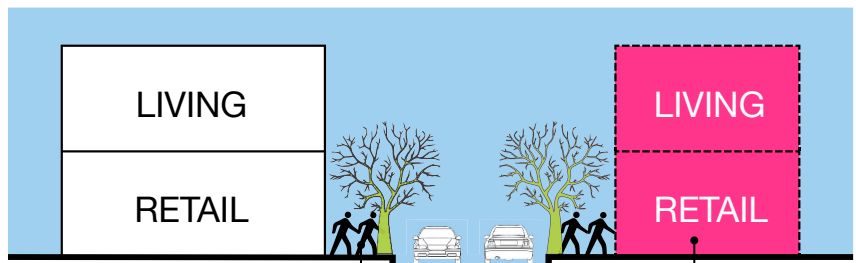
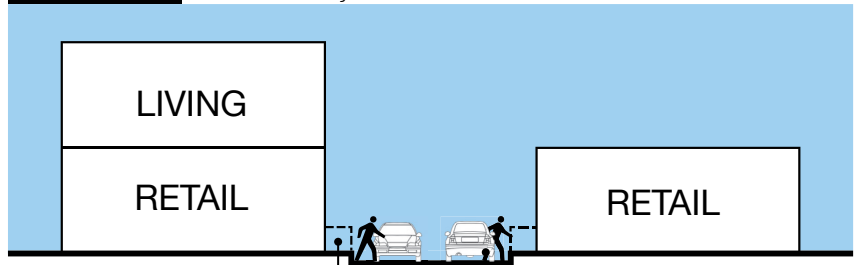




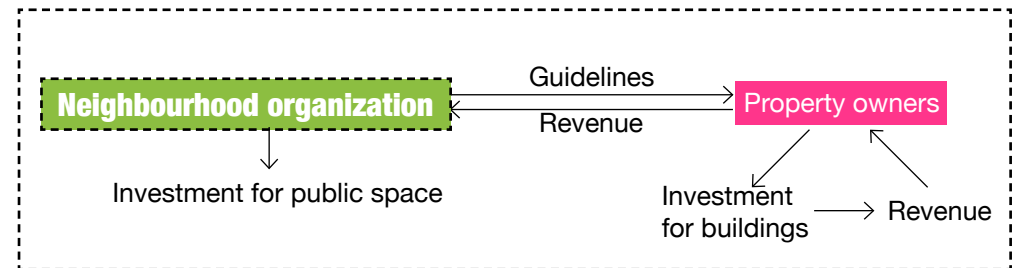
## Toolbox for intervention

### 1. General connection

**Condition 1** Low density transformation

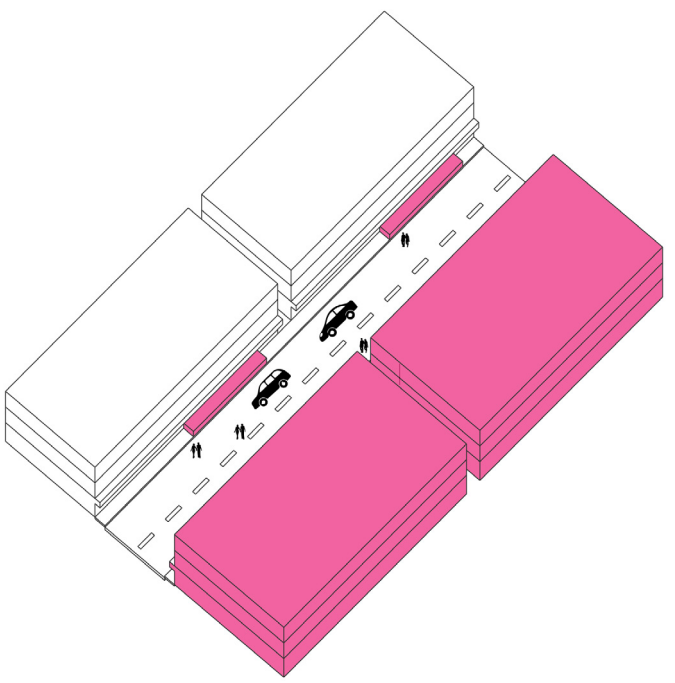


### Self-organized Model

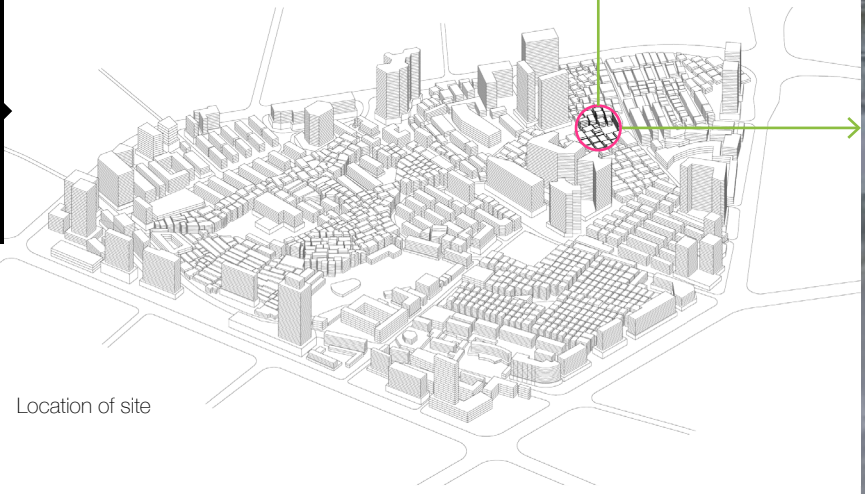




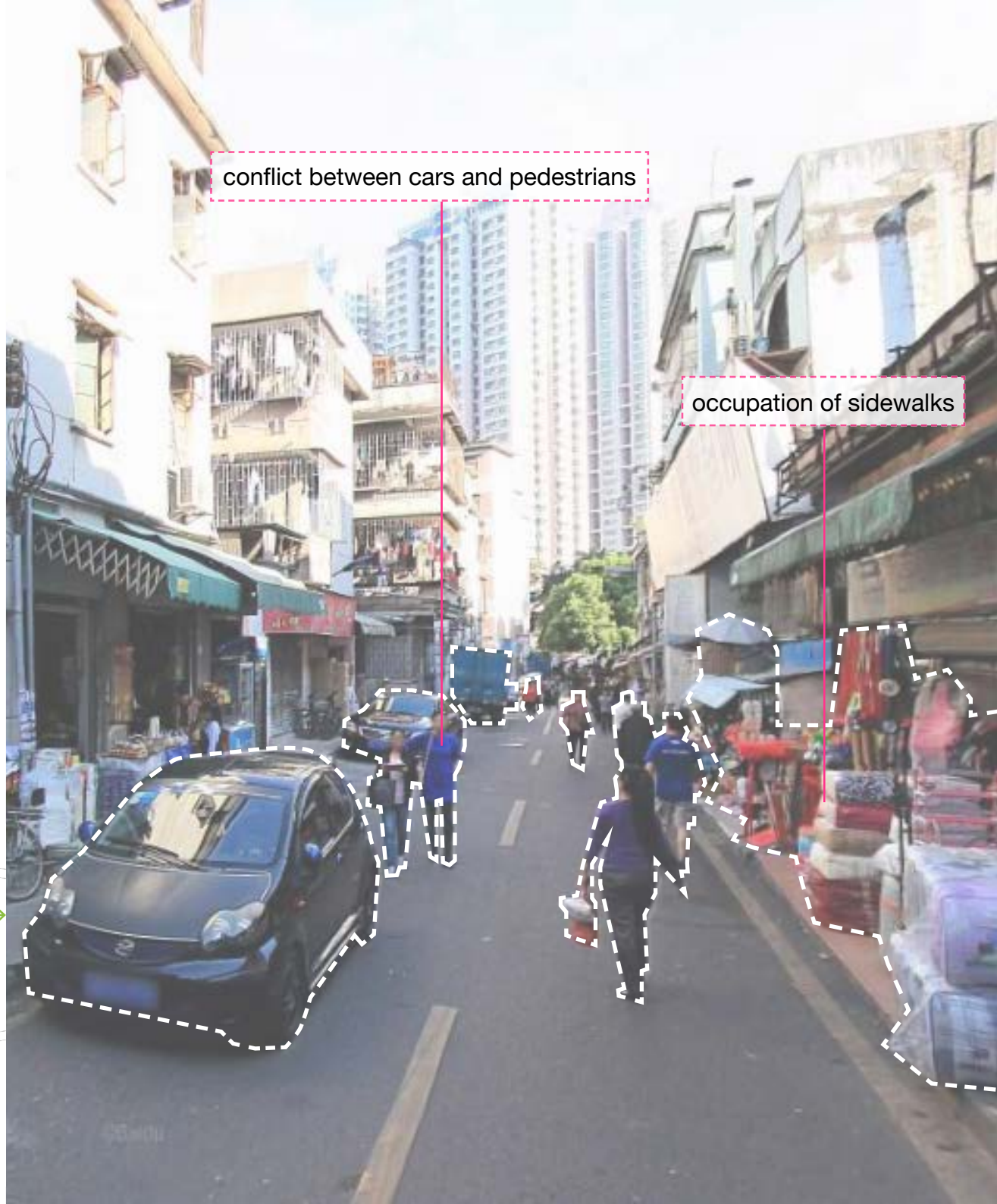
# 1. General connection



Demolished

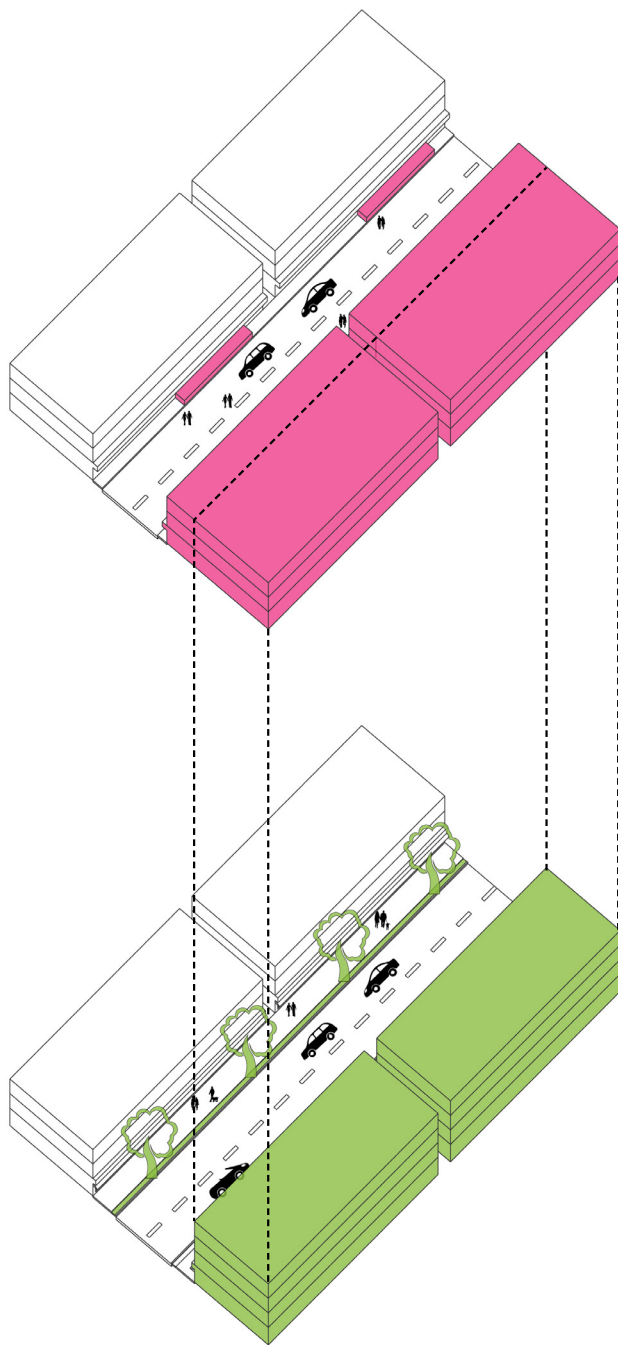


Strategy & Intervention





# 1. General connection



**Current situation**



**Demolish**



**New construction of buildings**



**widen of sidewalks**



**Landscaping**



**Improved connection**

 Demolished

 Added or new elements

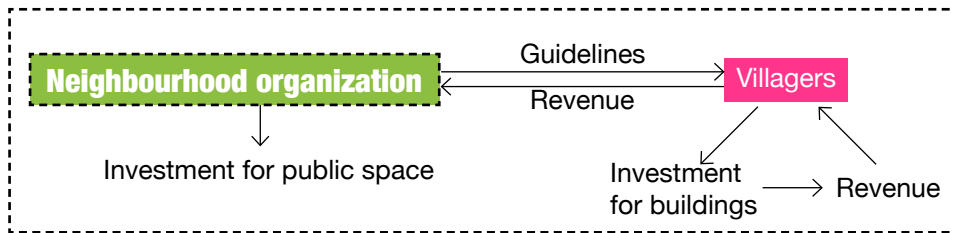




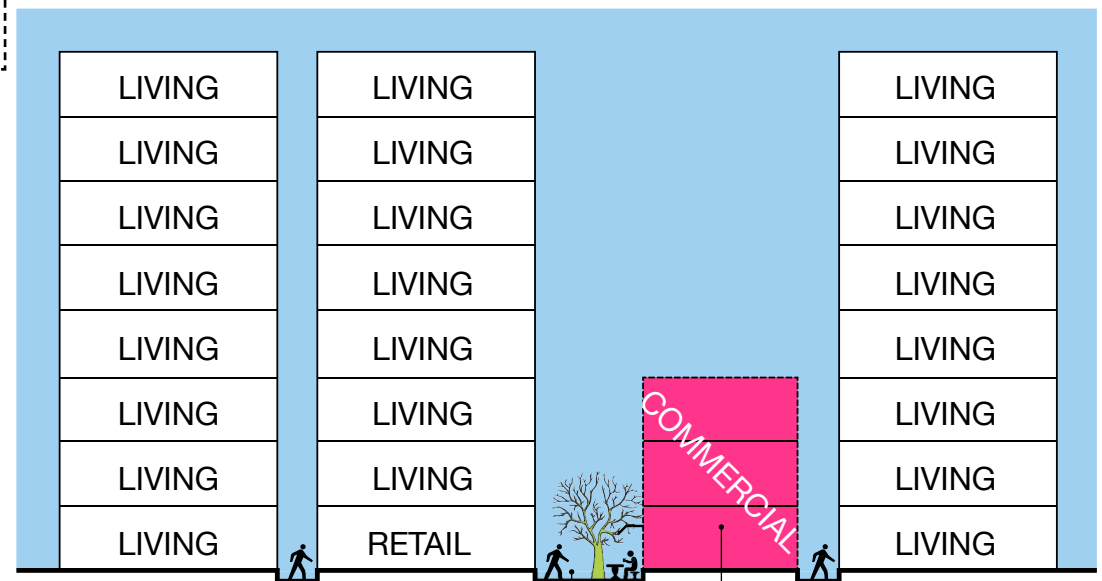
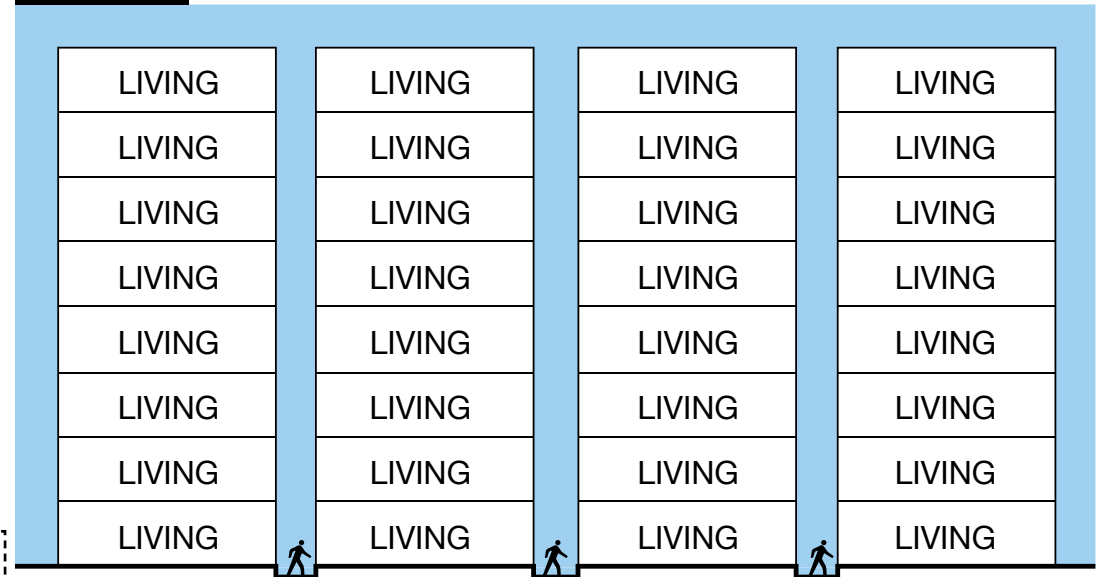
## Toolbox for intervention

### 1. General connection

#### Self-organized Model



#### Condition 2

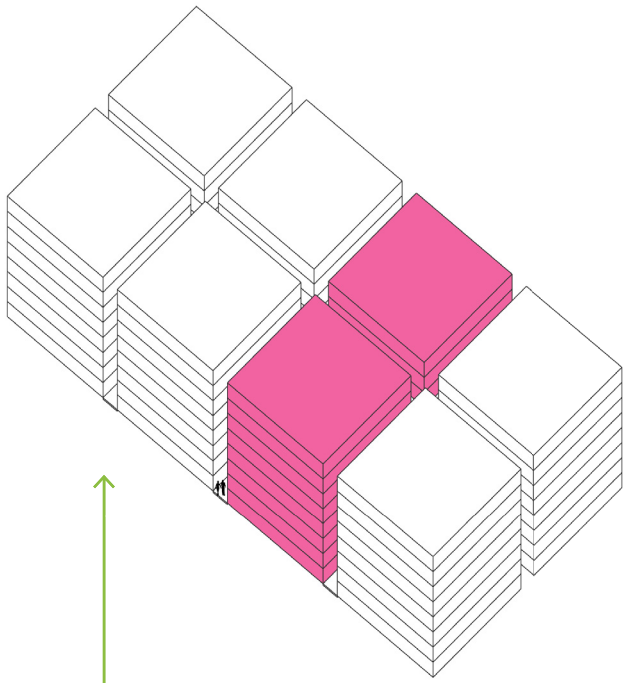


Public facilities added

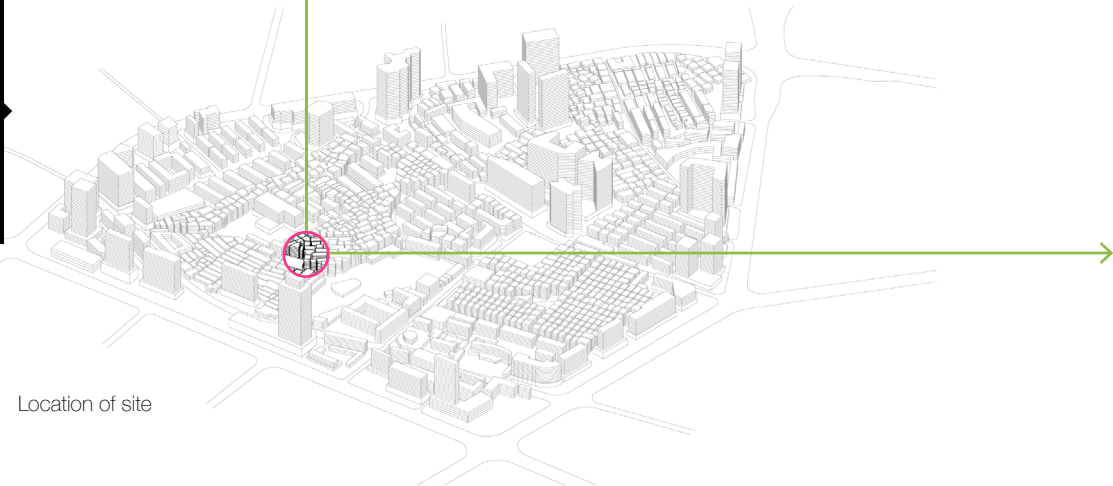
Reconstruction of buildings



# 1. General connection

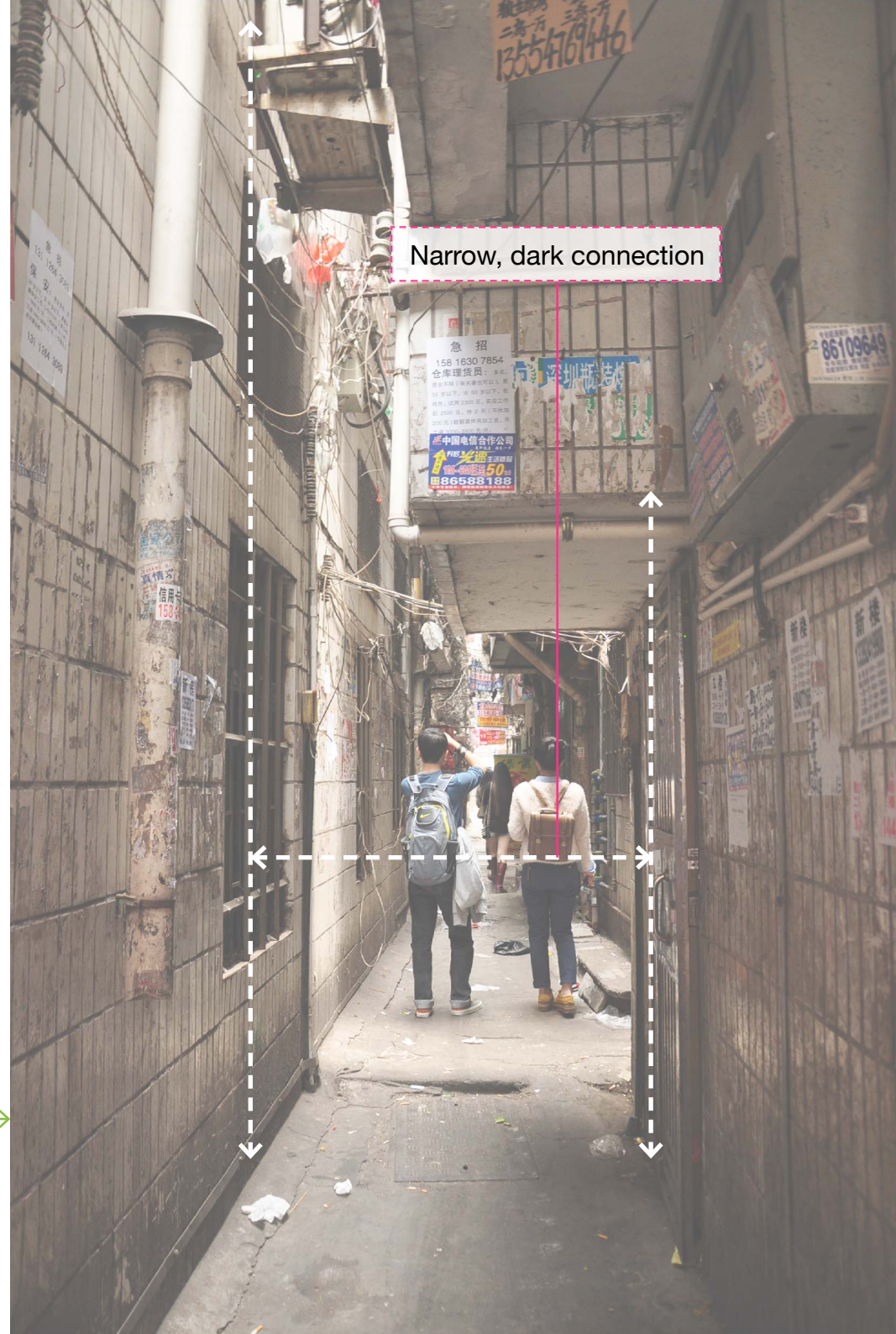


Demolished



Location of site

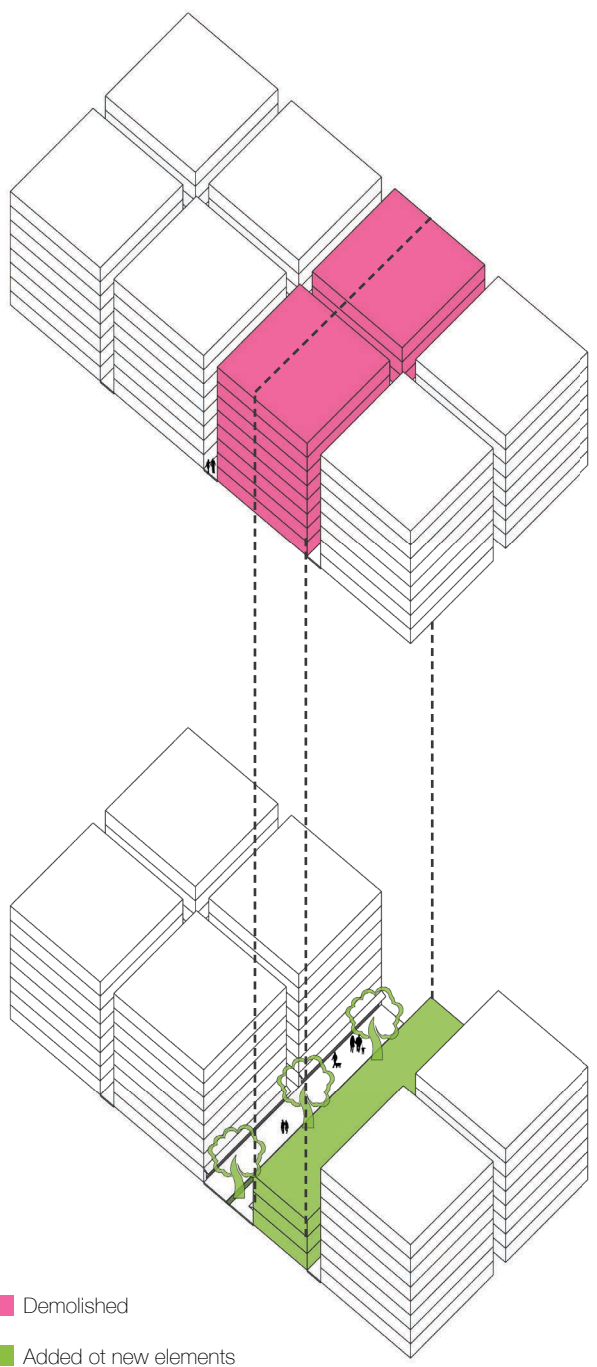
Strategy & Intervention



Narrow, dark connection



# 1. General connection



Demolished

Added or new elements

Current situation

↓

Demolish

↓

Function tranform

↓

New construction of buildings

↓

Landscaping

↓

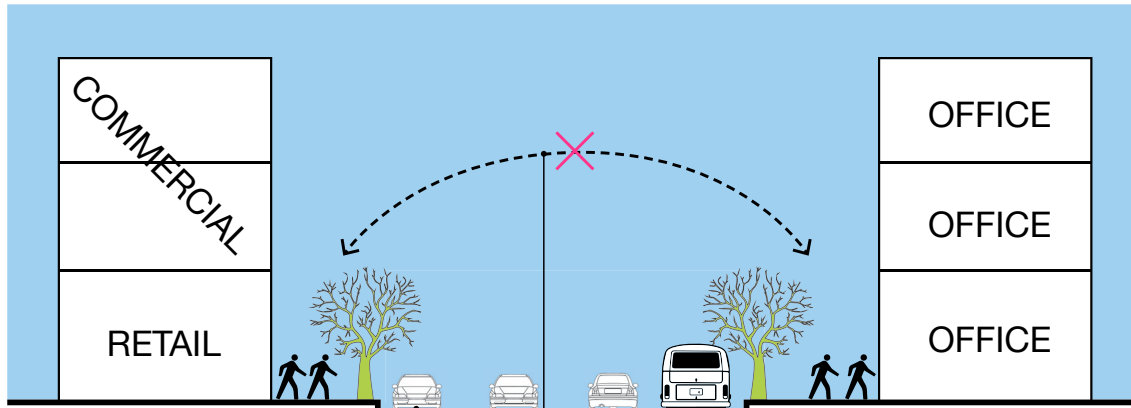
Improved connection





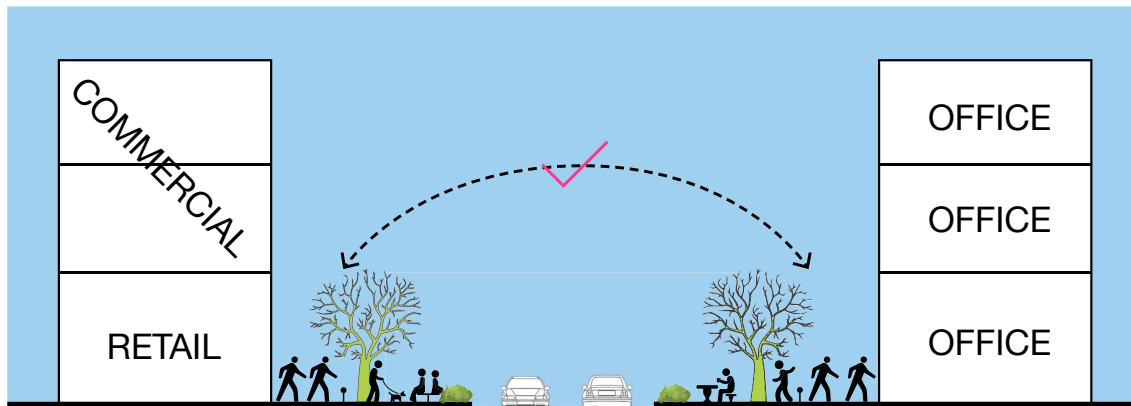
## Toolbox for intervention

### 2. Infrastructure as physical boundary



Wide street as barrier

Lane as parking space



Widen of sidewalks

Public facilities added

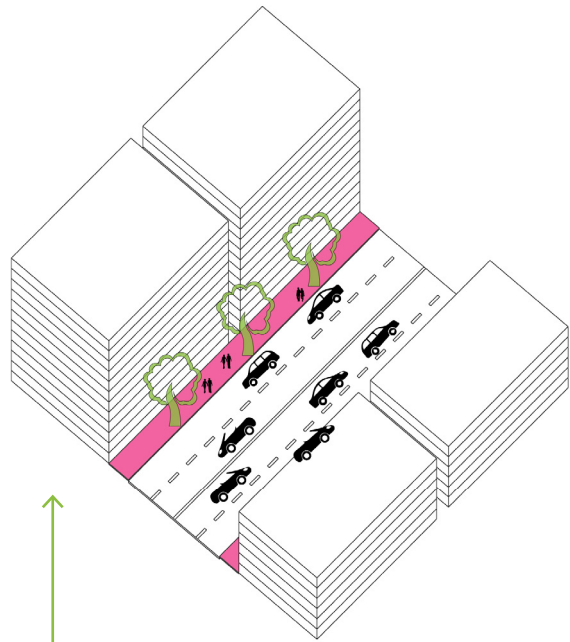
### Organization-supported Model

Neighbourhood organization

→ Investment+guidelines



## 2. Infrastructure as physical boundary

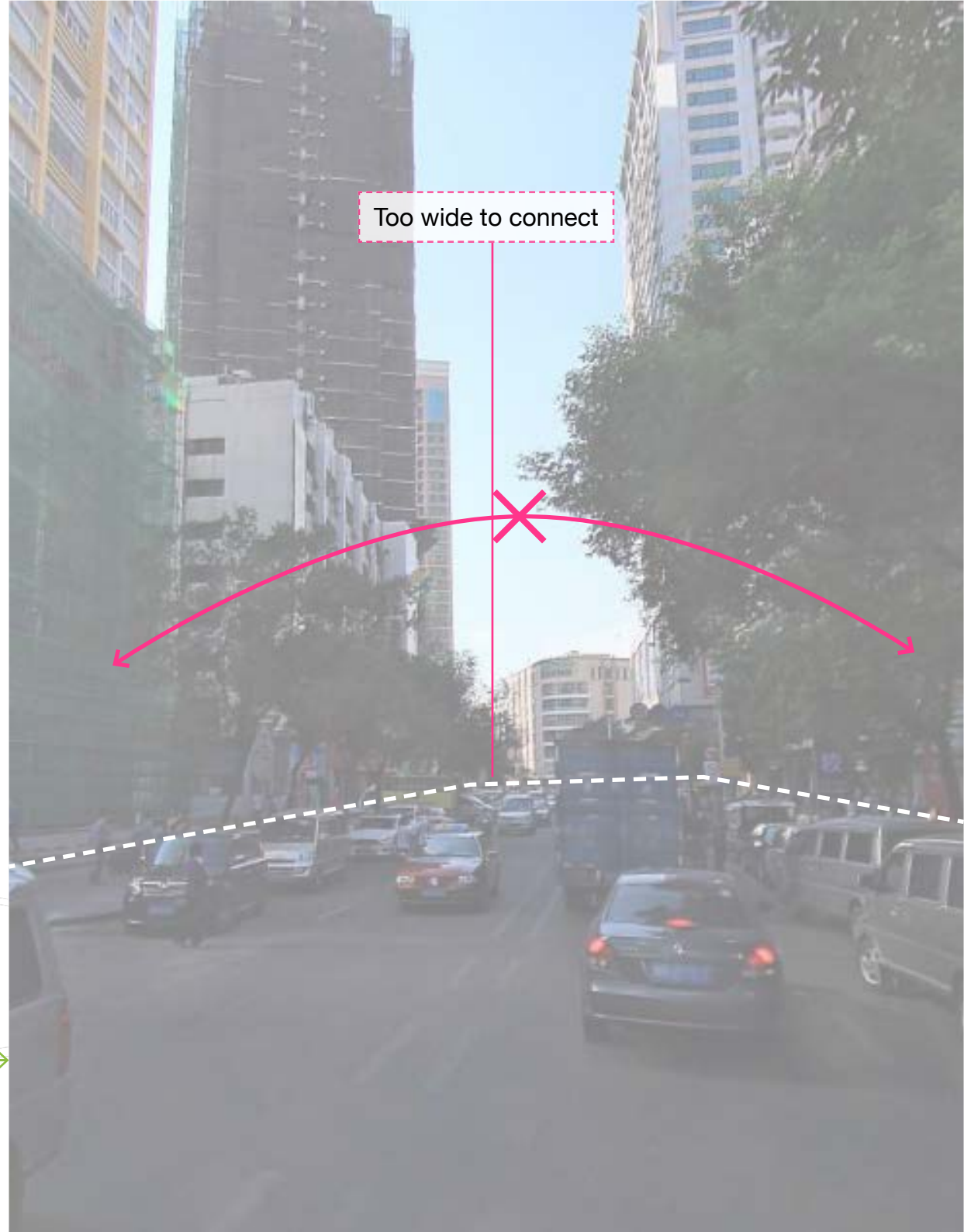


Transformed



Location of site

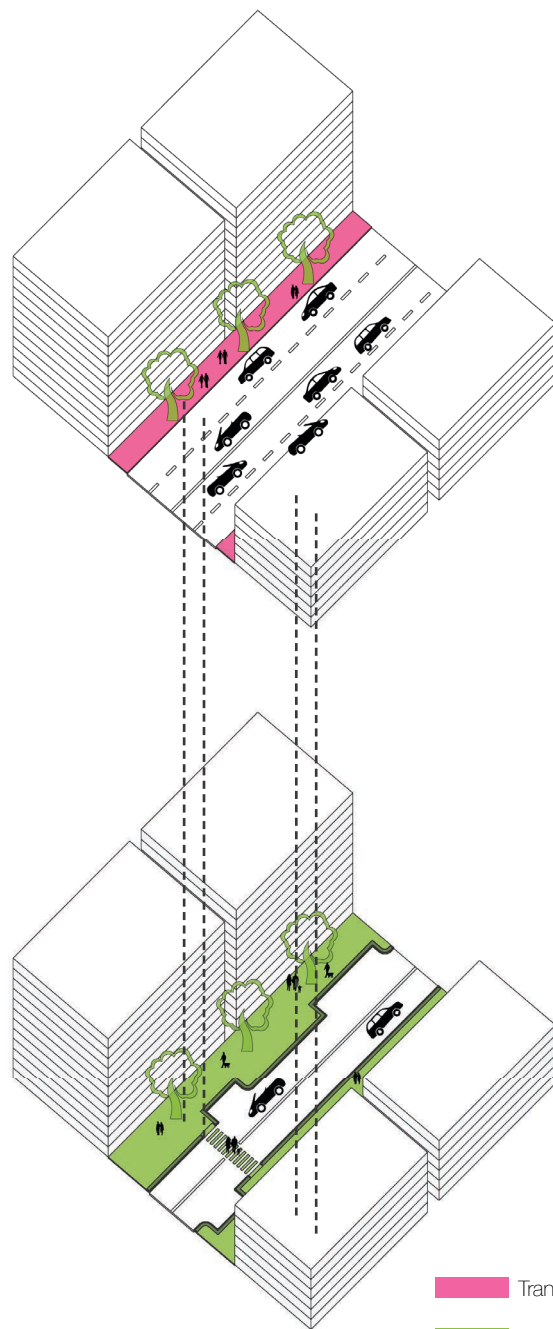
Strategy  
& Intervention



Too wide to connect



## 2. Infrastructure as physical boundary



**Current situation**



**Widen of sidewalks**



**Landscaping**



**Improved infrastructure**

 Transformed space

 Added or improved new elements

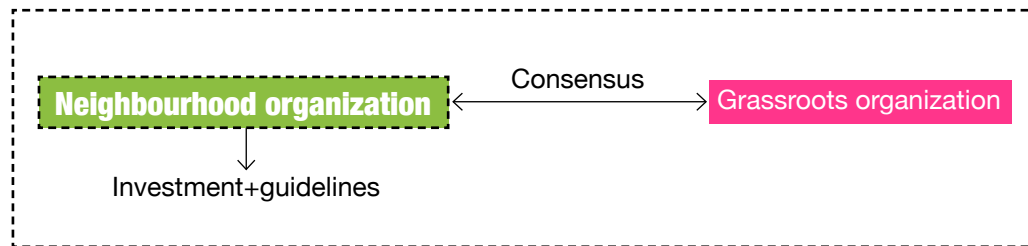




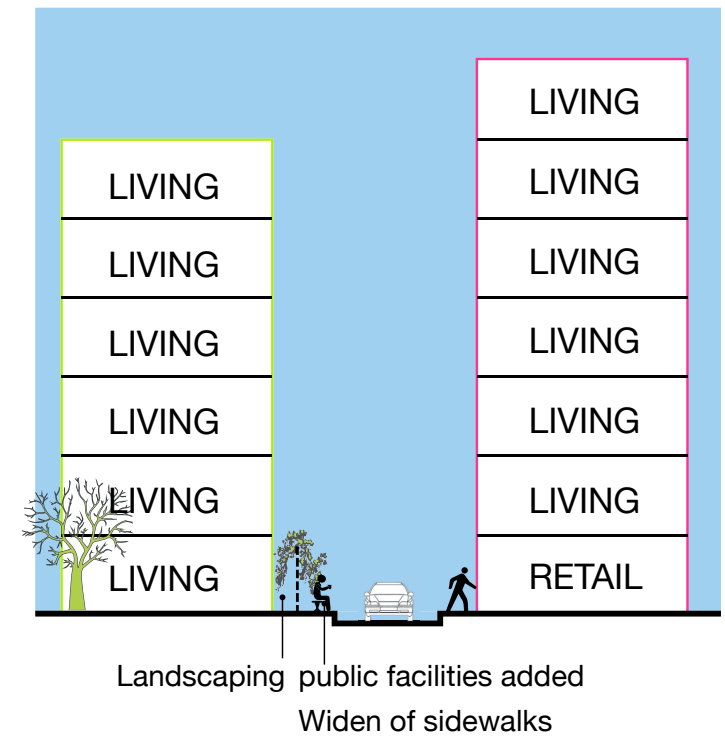
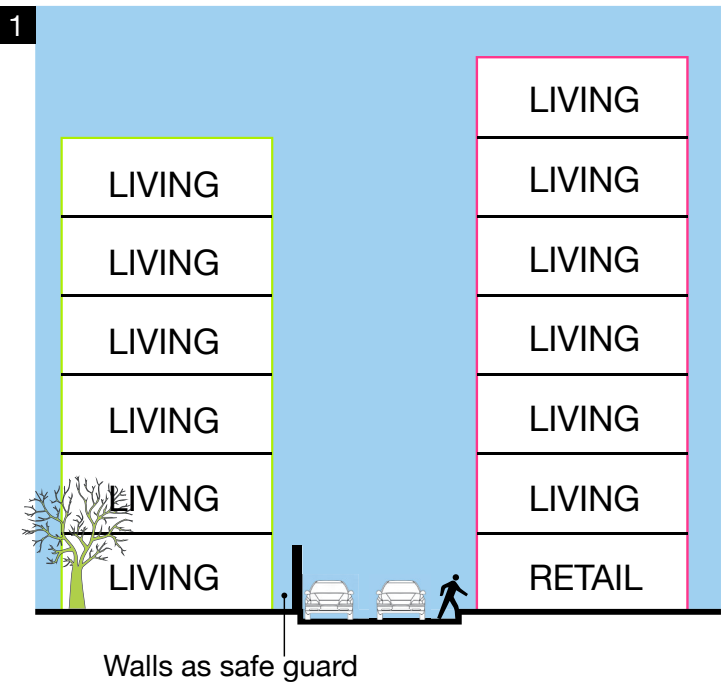
## Toolbox for intervention

### 3. Walls + Distinct spatial quality as physical boundary

#### Consensus Model

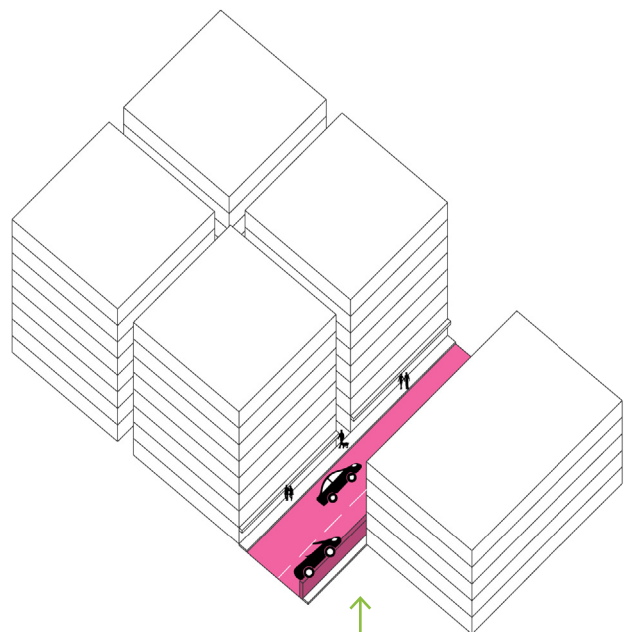


#### Condition 1

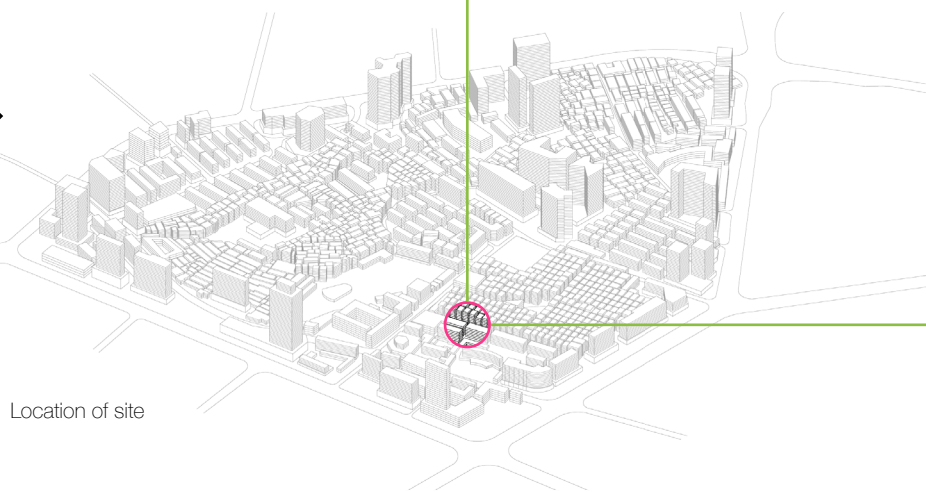




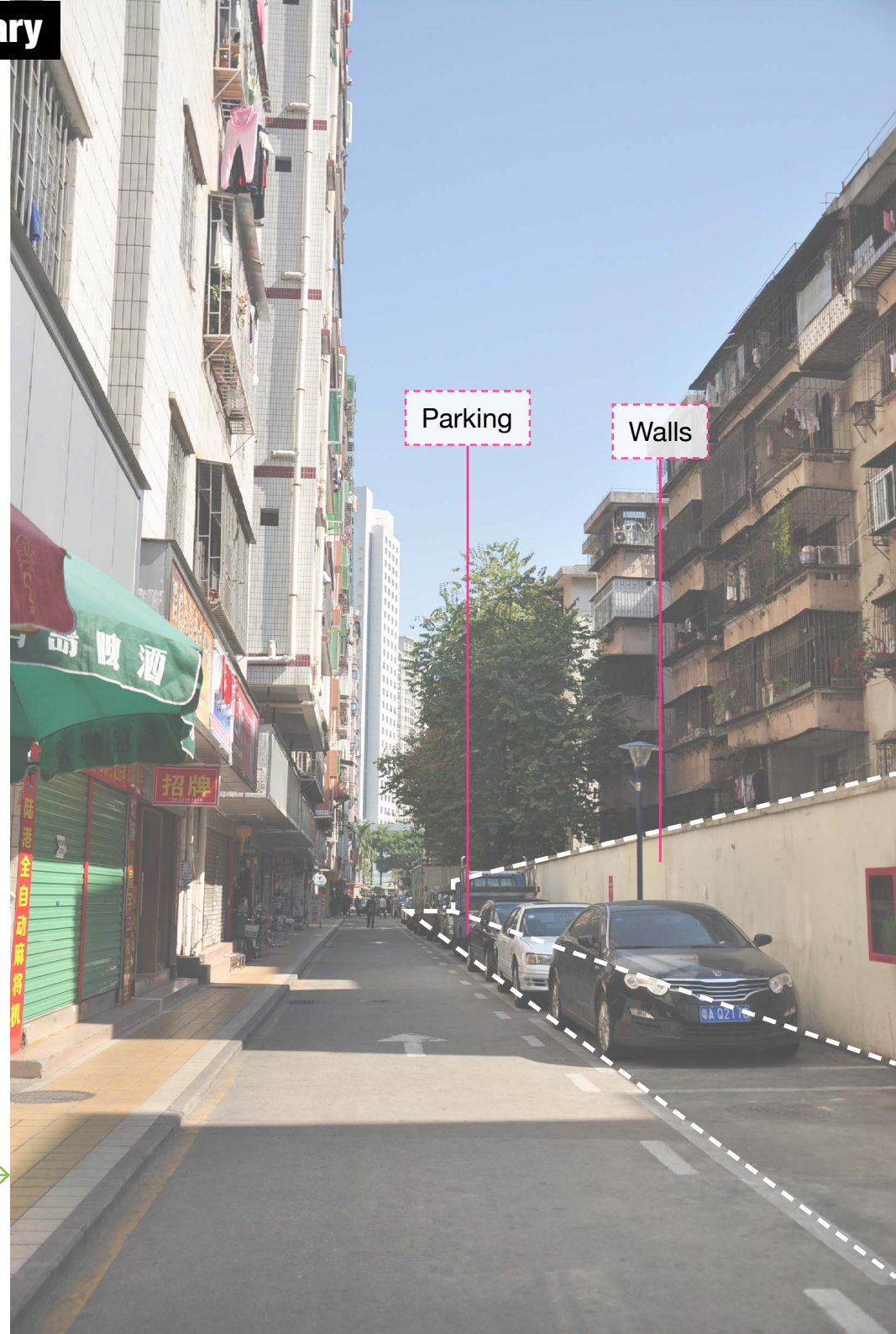
### 3. Walls and distinct spatial quality as physical boundary



Transformed

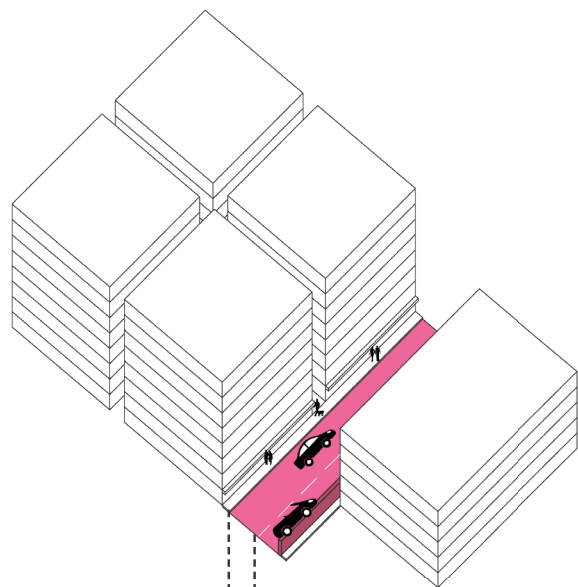


Location of site

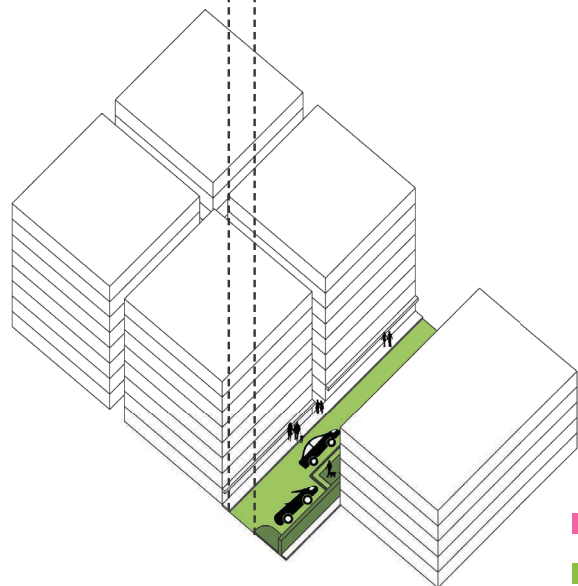






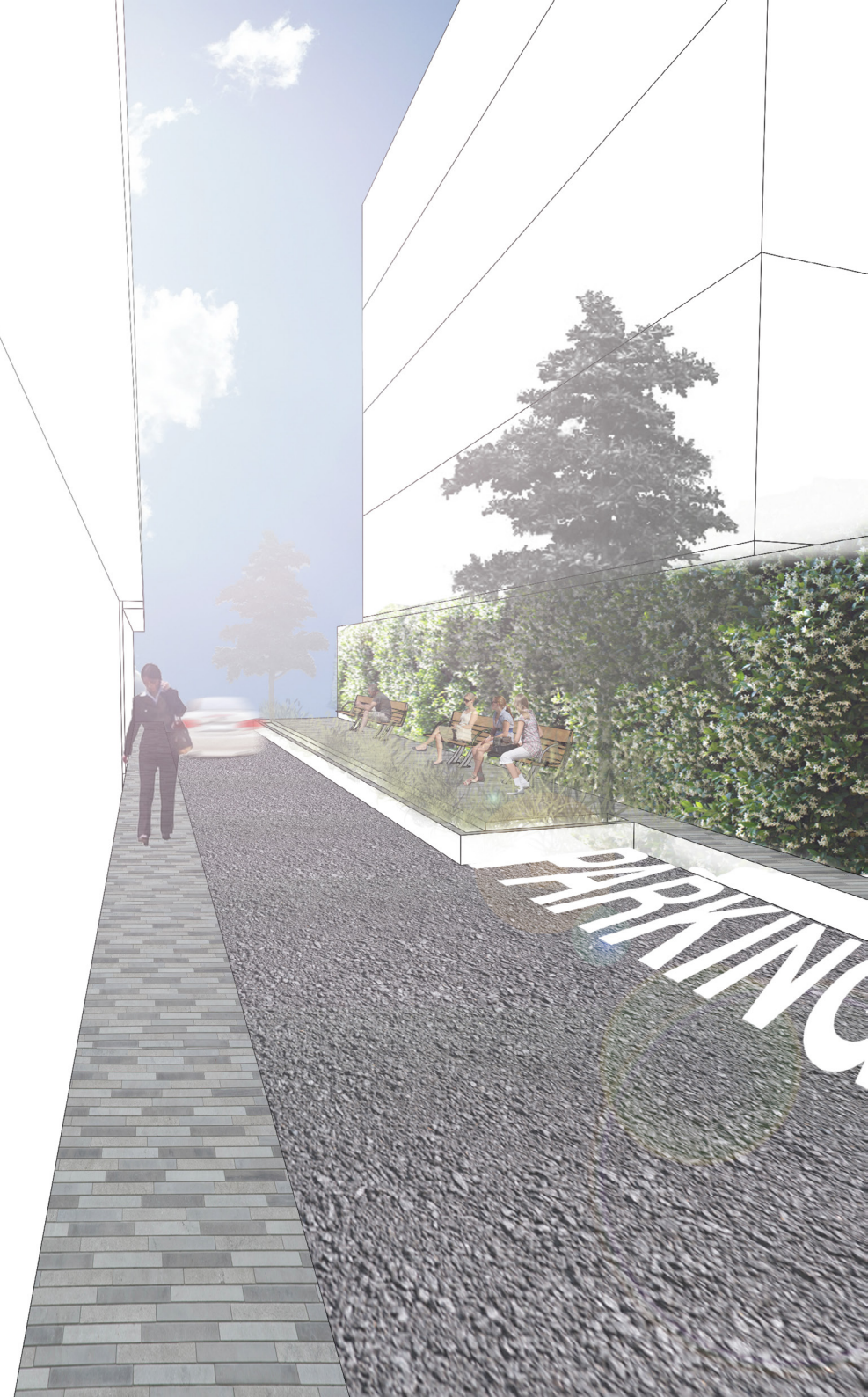
### 3. Walls and distinct spatial quality as physical boundary



**Current situation**  
↓  
**Parking space transform**  
↓  
**Landscaping**  
↓  
**Facilities added**  
↓  
**Improved physical boundary**



 Transformed space  
 Added or improved new elements

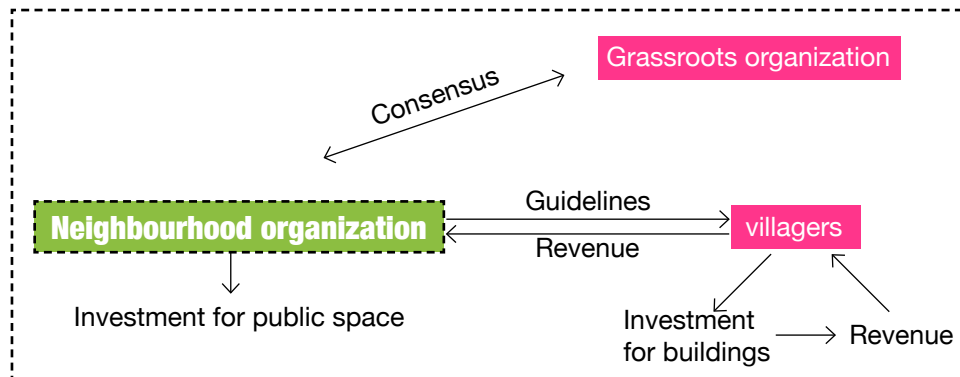




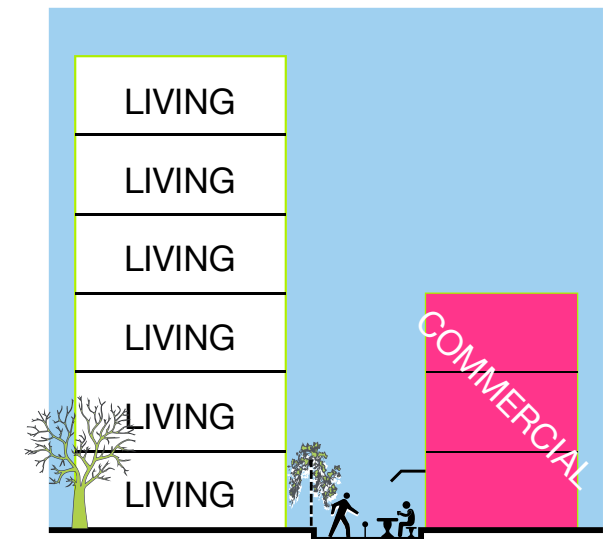
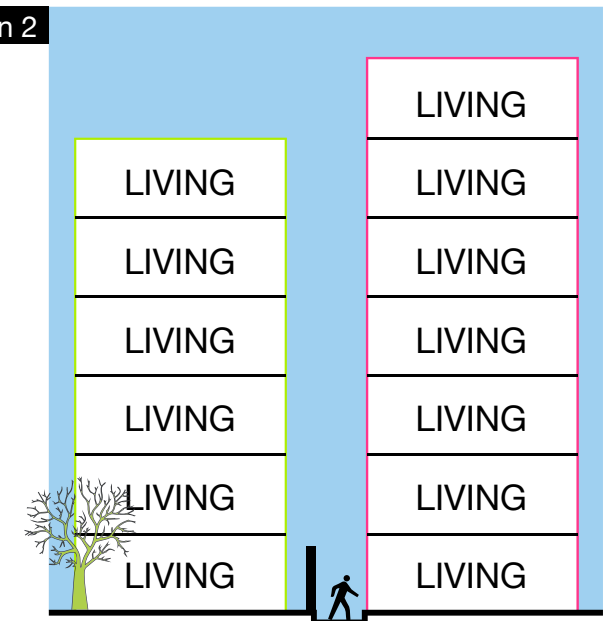
## Toolbox for intervention

### 3. Walls + Distinct spatial quality as physical boundary

#### Self-organized + Consensus Model



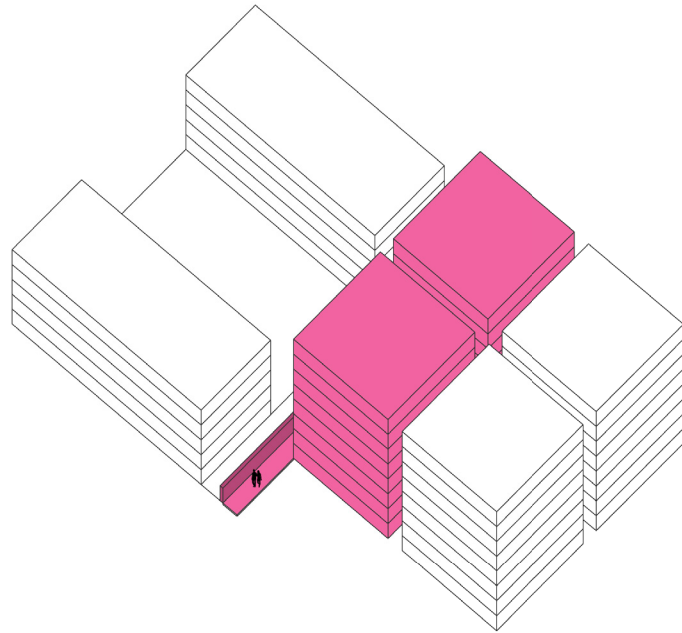
#### Condition 2



Landscaping+ Reconstruction of buildings



### 3. Walls and distinct spatial quality as physical boundary



Transformed



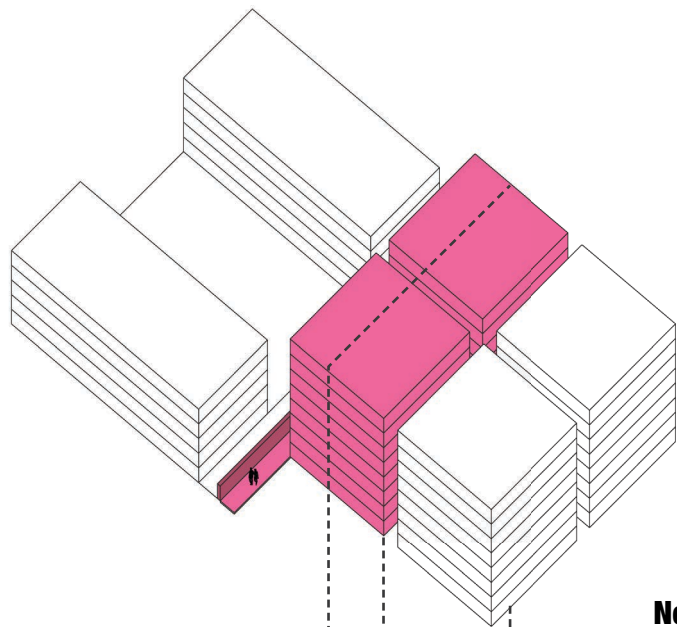
Location of site



Walls



### 3. Walls and distinct spatial quality as physical boundary



**Current situation**



**Demolish**



**Function transform**



**New construction of buildings**



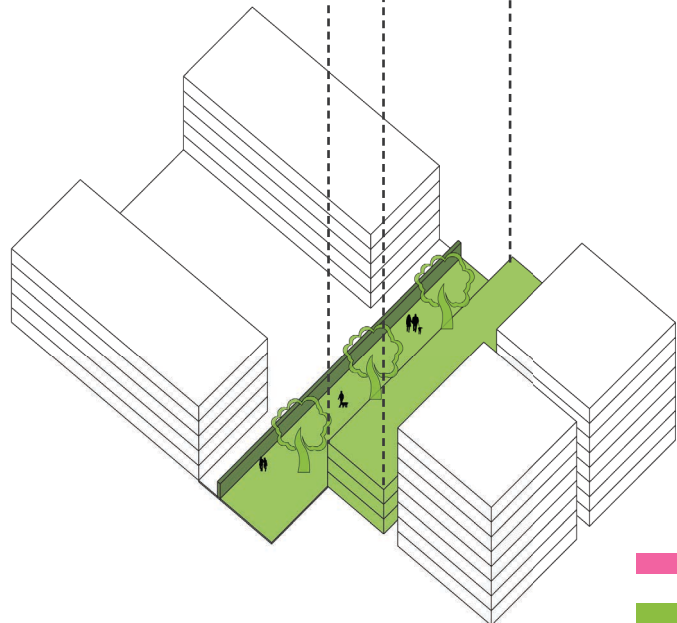
**Landscaping**



**Facilities added**



**Improved space**



 Transformed buildings and space

 Added or improved new elements

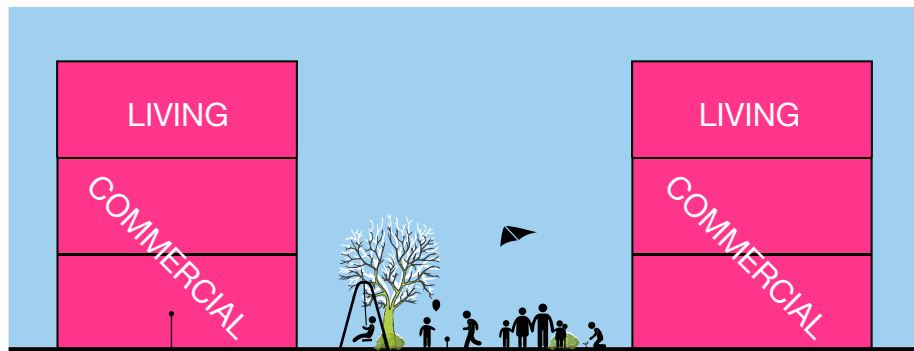
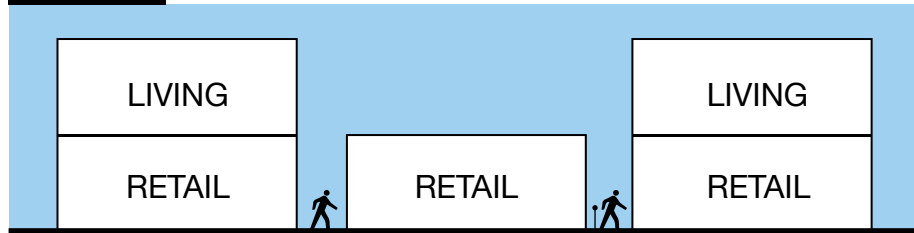




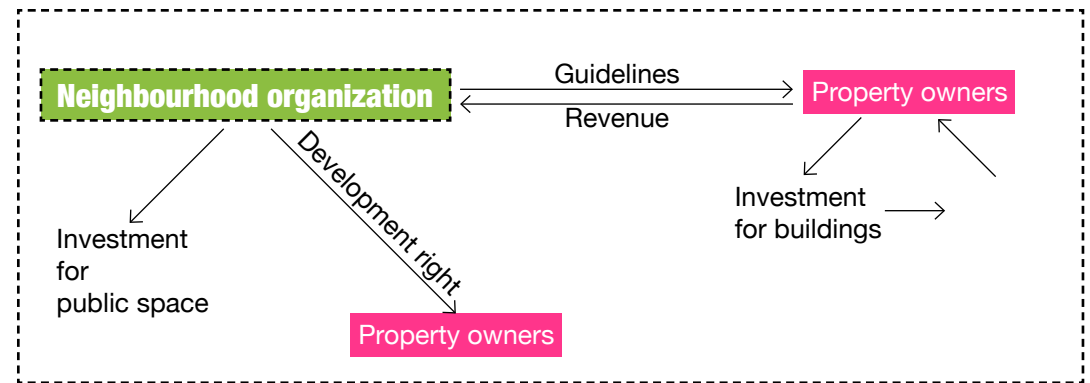
## Toolbox for intervention

### 4. Social space making---limited space

Condition 1

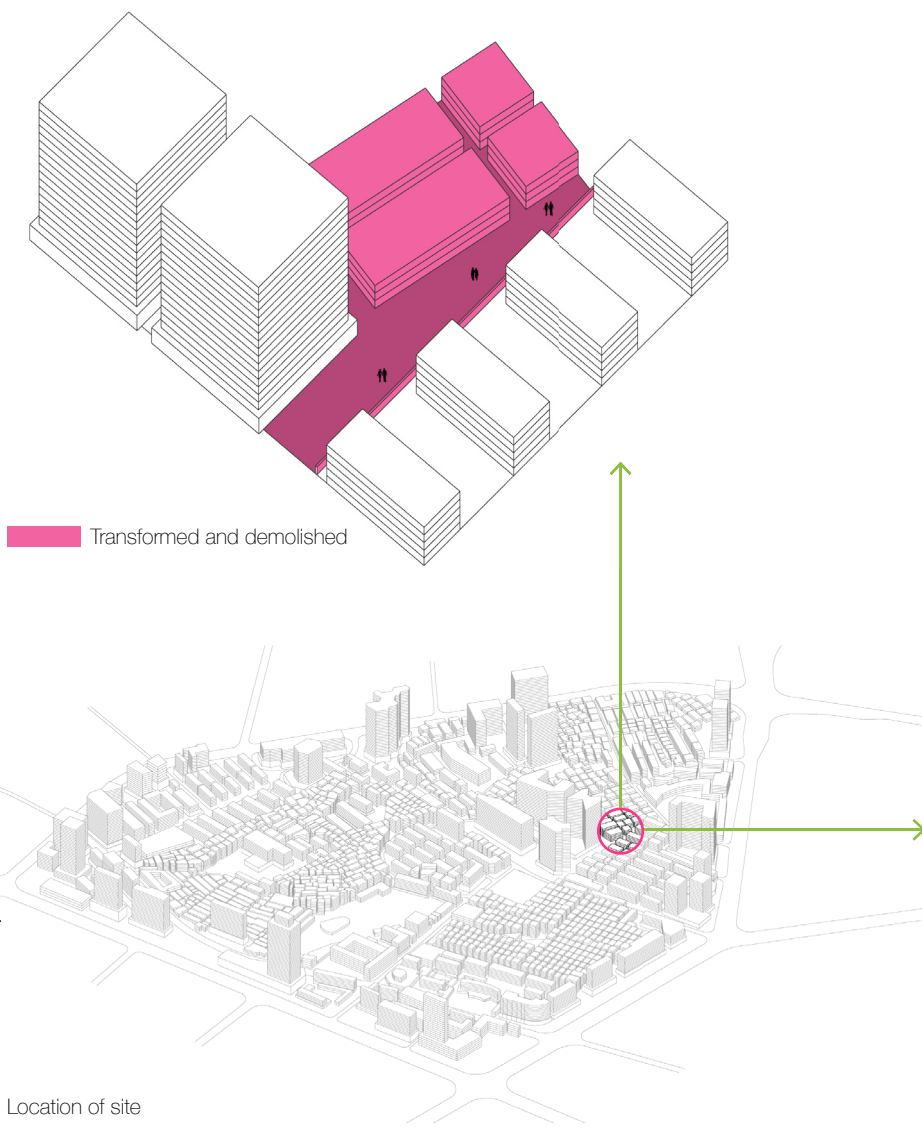


Trade-off Model





# 4. Social space making

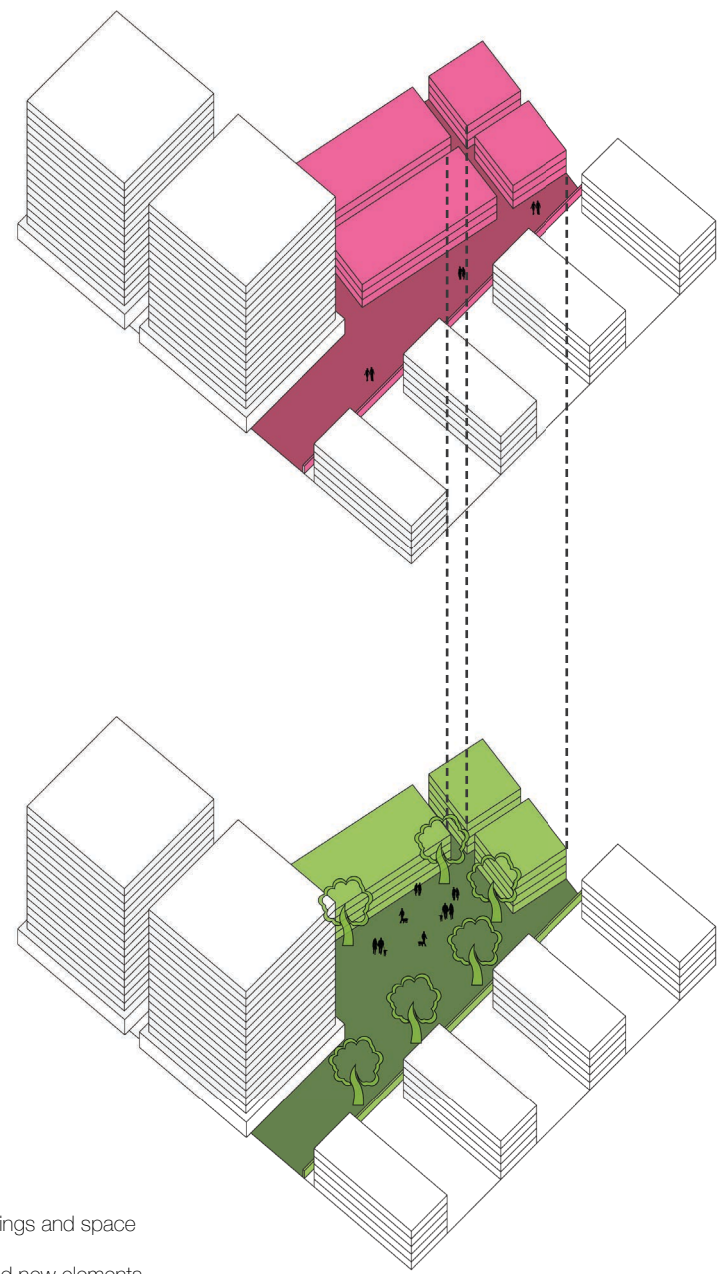


Lack of social space

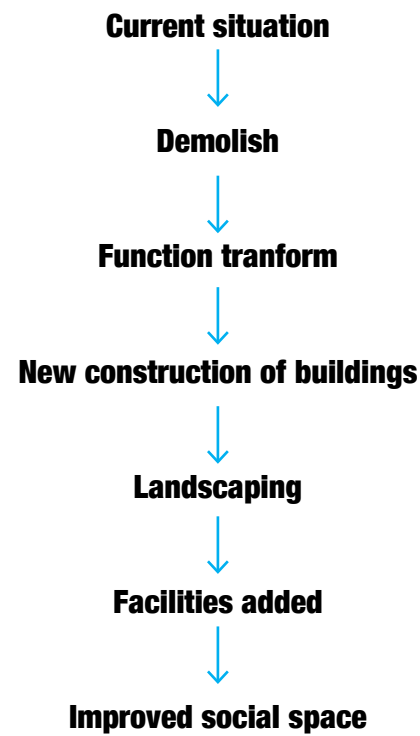




# 4. Social space making



- Transformed buildings and space
- Added or improved new elements





# 4. Social space making

Strategy  
& Intervention

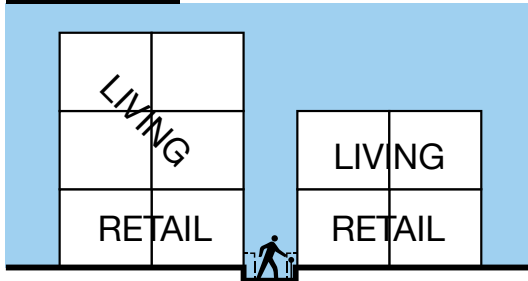




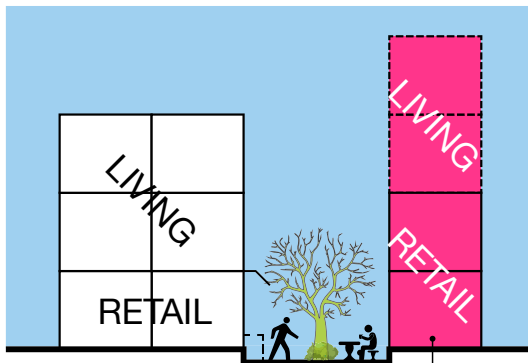
## Toolbox for intervention

### 5. Informal market street---one-side intervention

Condition 1



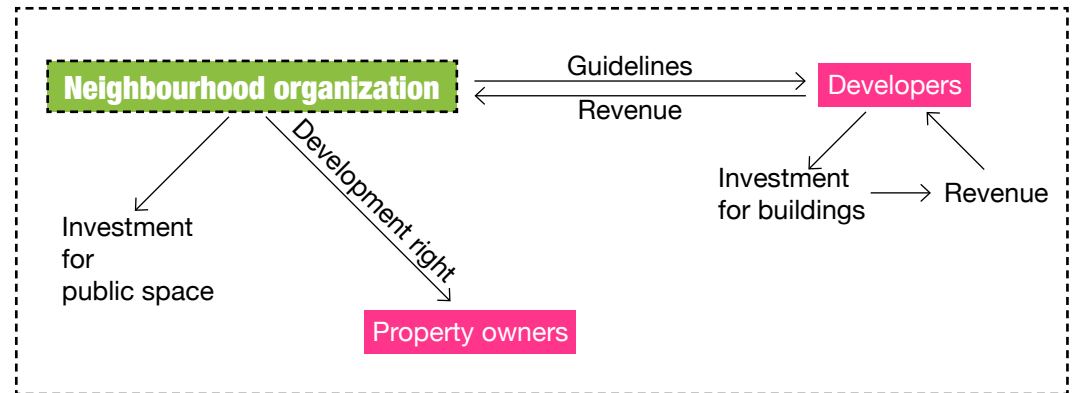
Narrow space for informal market



Reconstruction of buildings

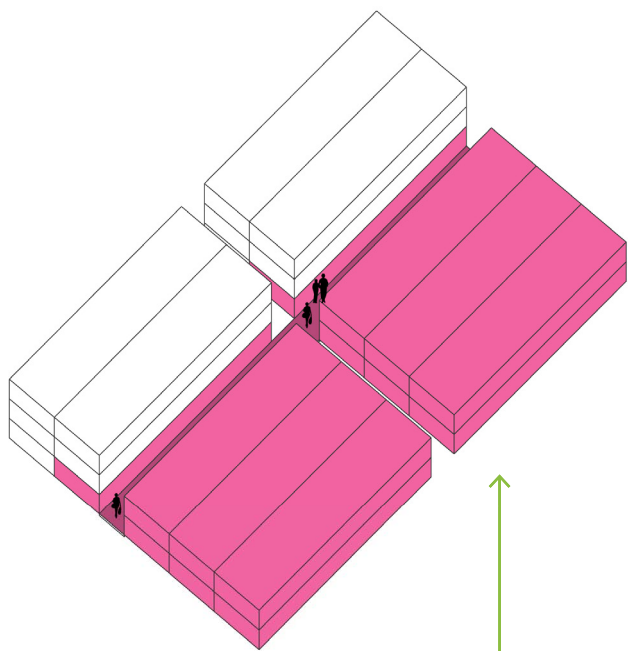
Demolish of buildings

Trade-off Model

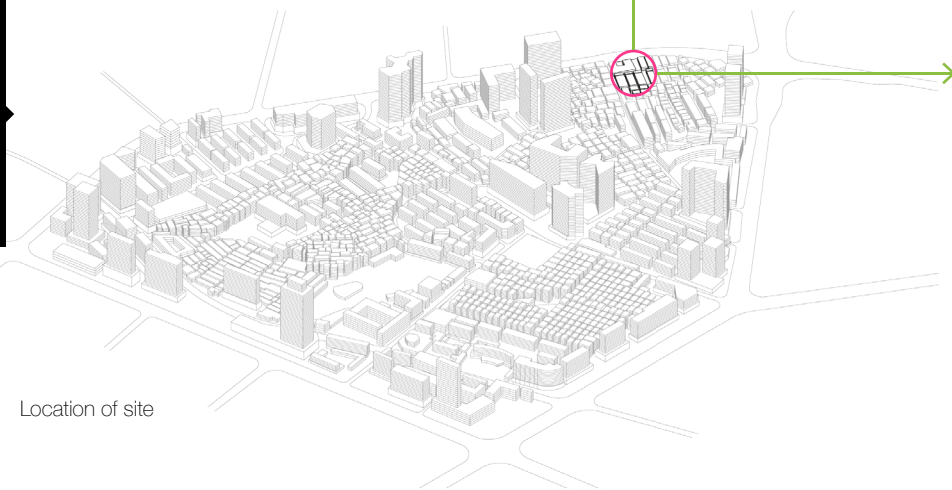




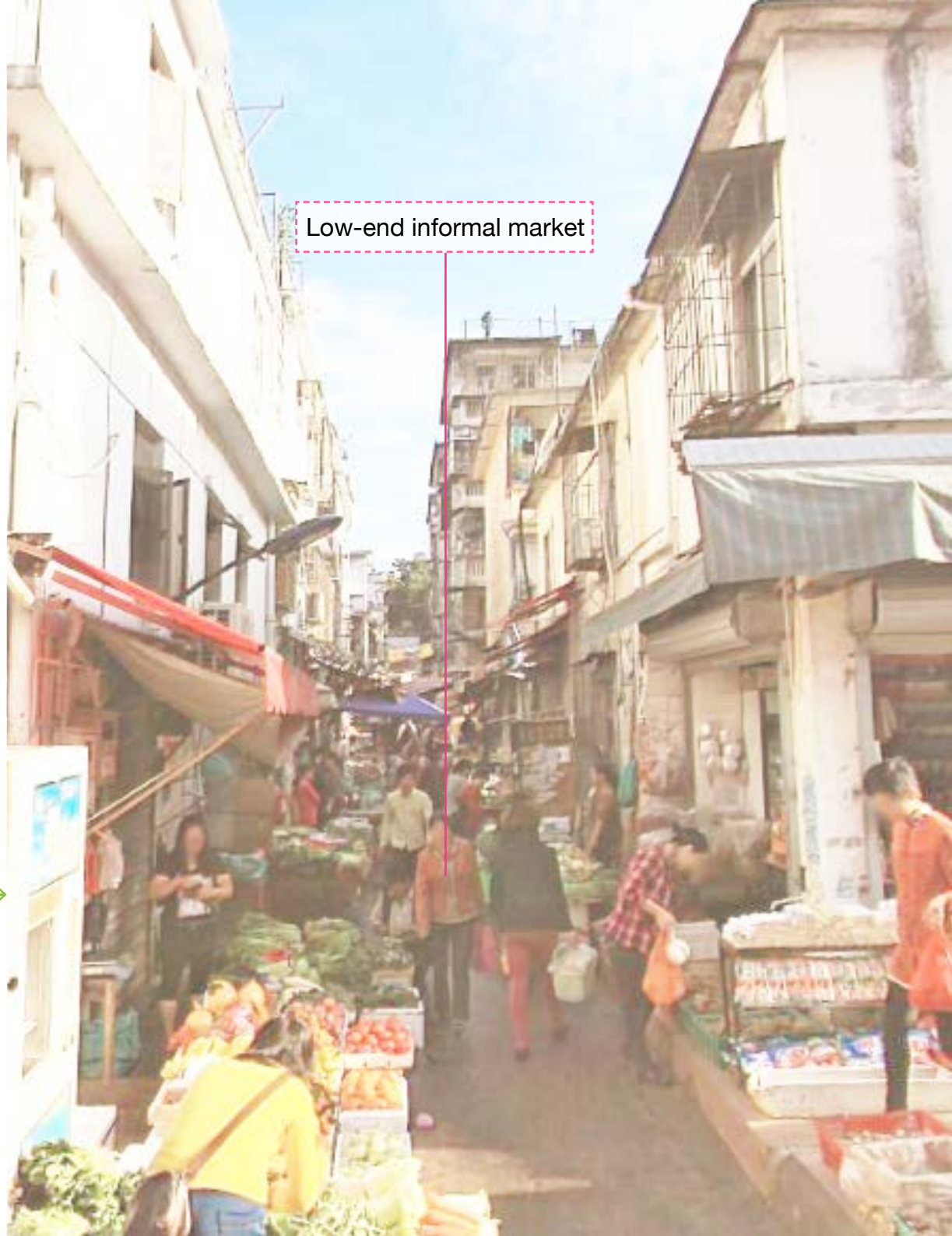
# 5. Informal market street



Transformed and demolished



Location of site

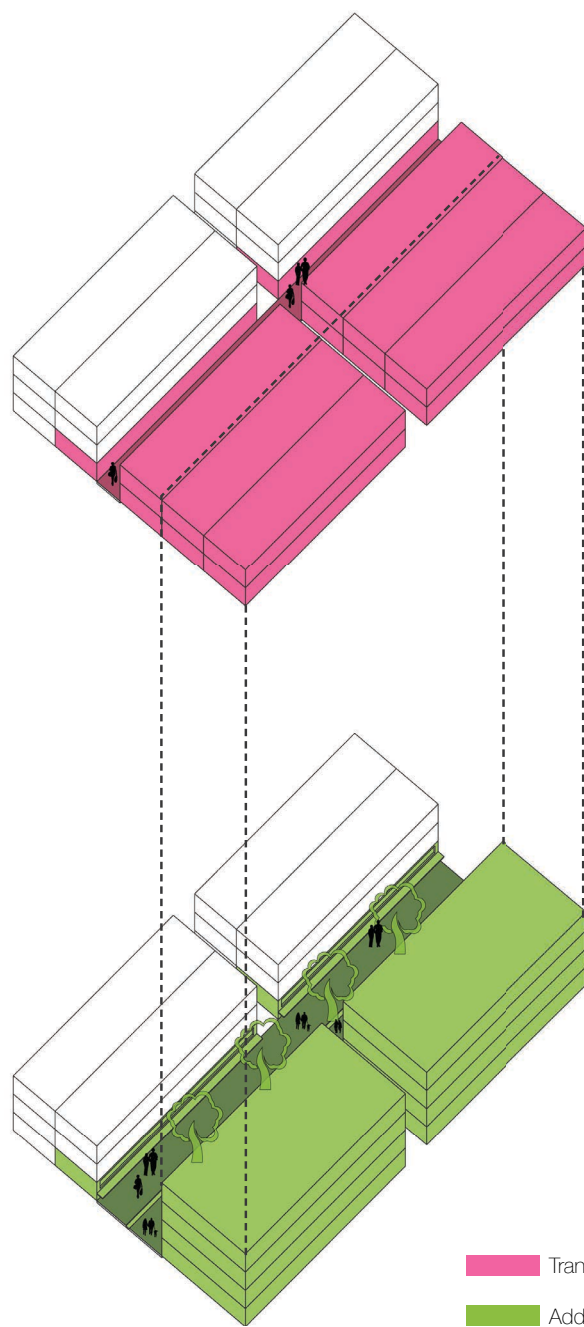




Low-end informal market

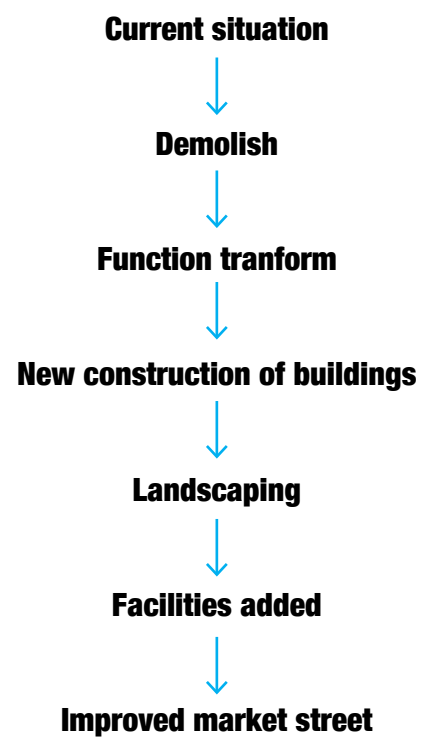


# 5. Informal market street

Strategy  
& Intervention



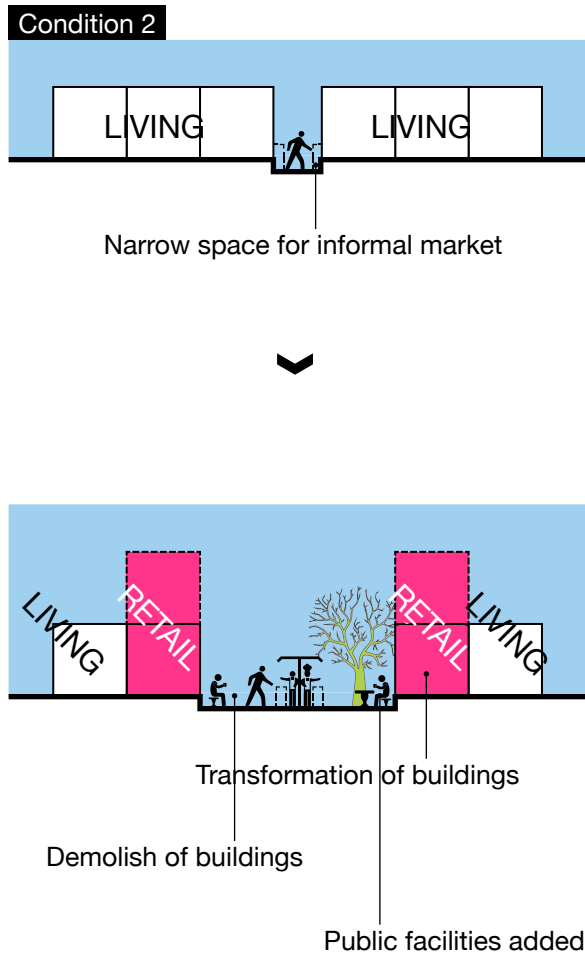
 Transformed buildings and space  
 Added or improved new elements



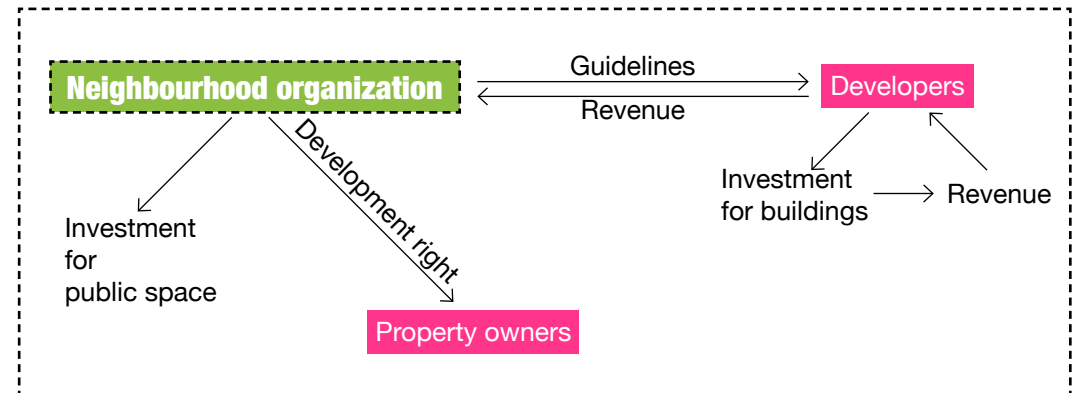


## Toolbox for intervention

### 5. Informal market street---two-side intervention

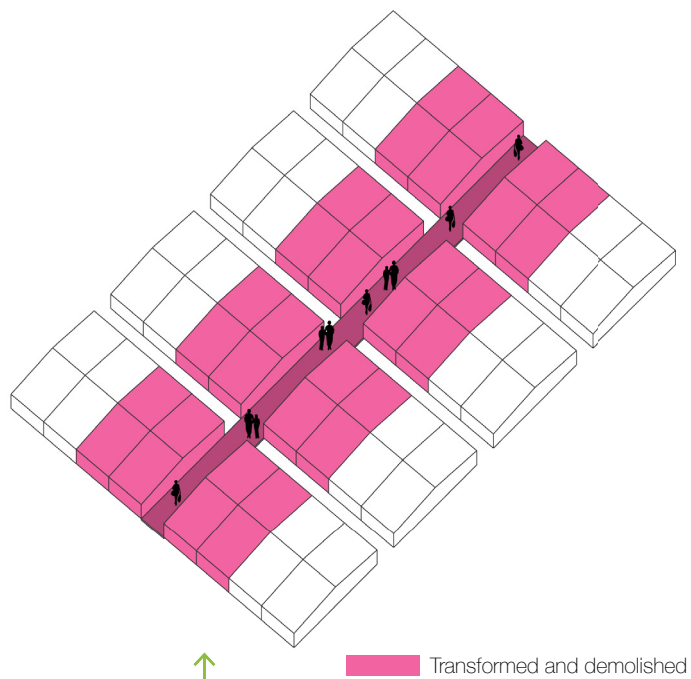


### New developers involved Model





# 5. Informal market street

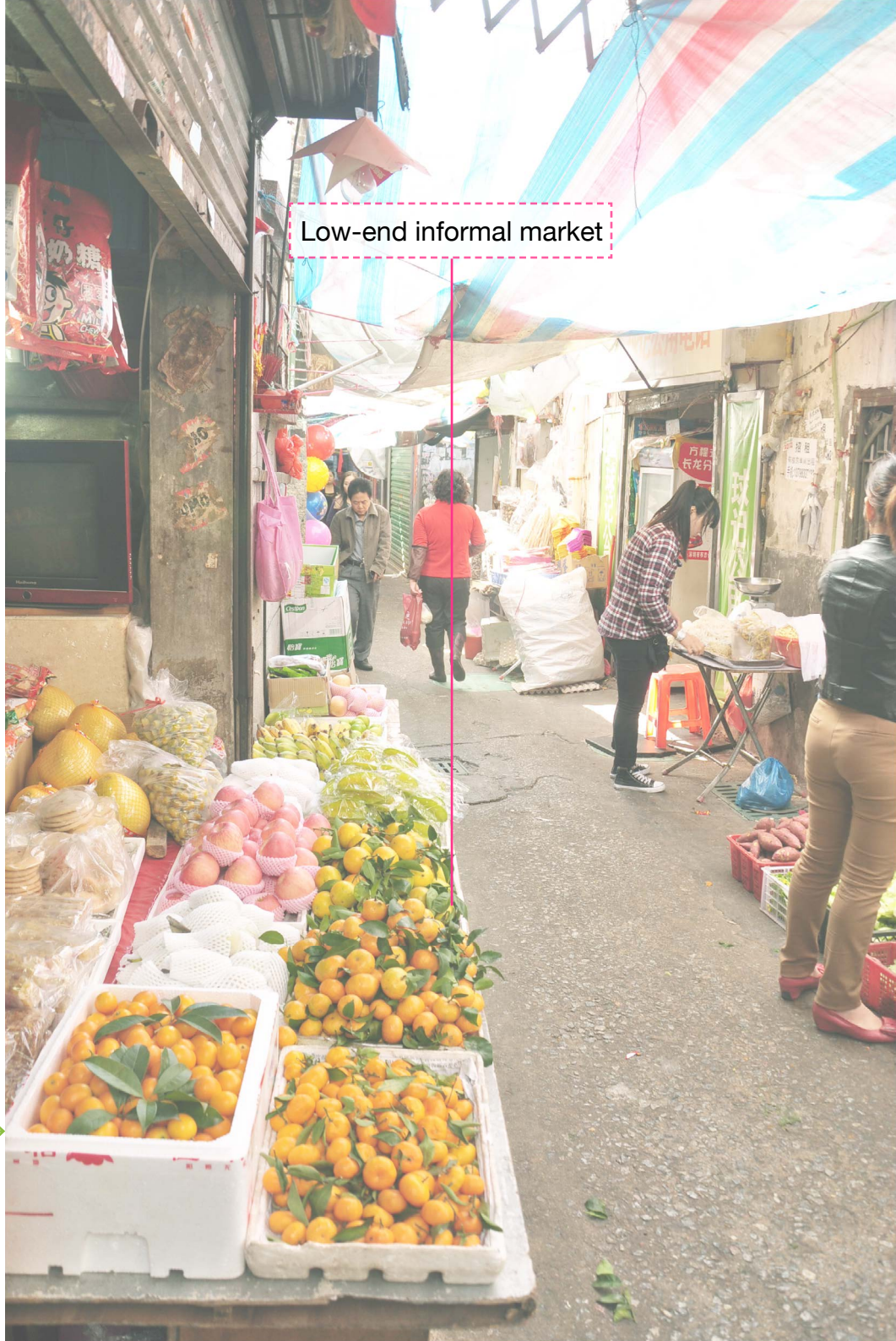


Transformed and demolished



Location of site

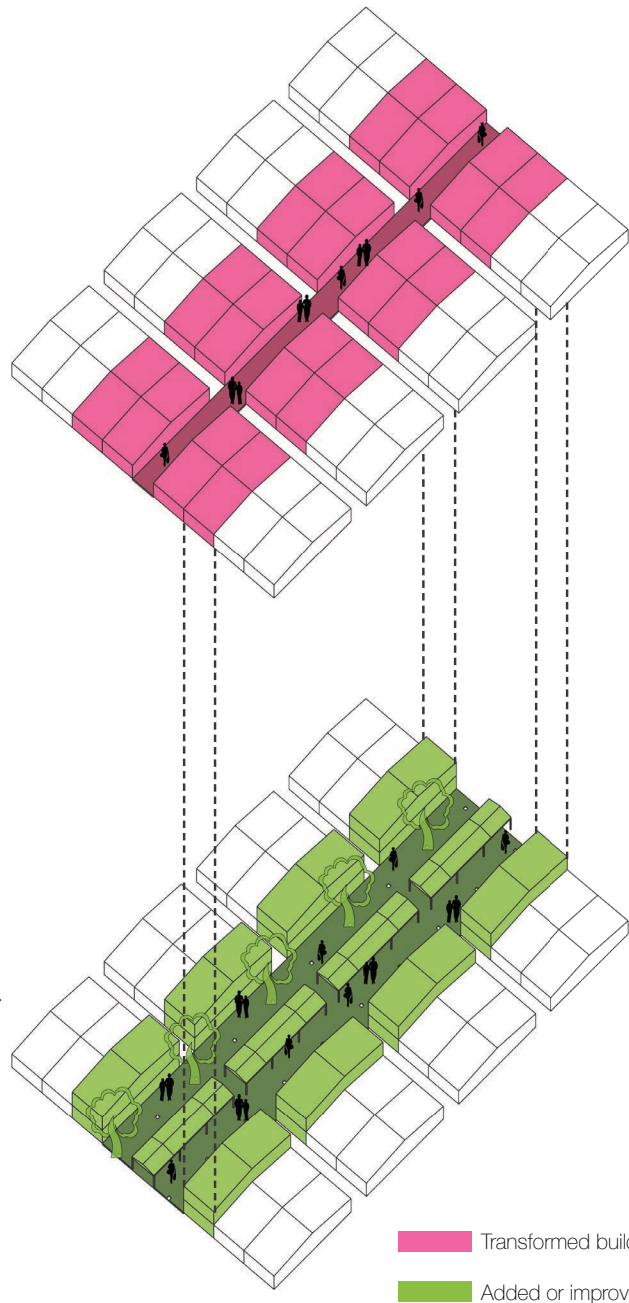
Strategy & Intervention



Low-end informal market



# 5. Informal market street



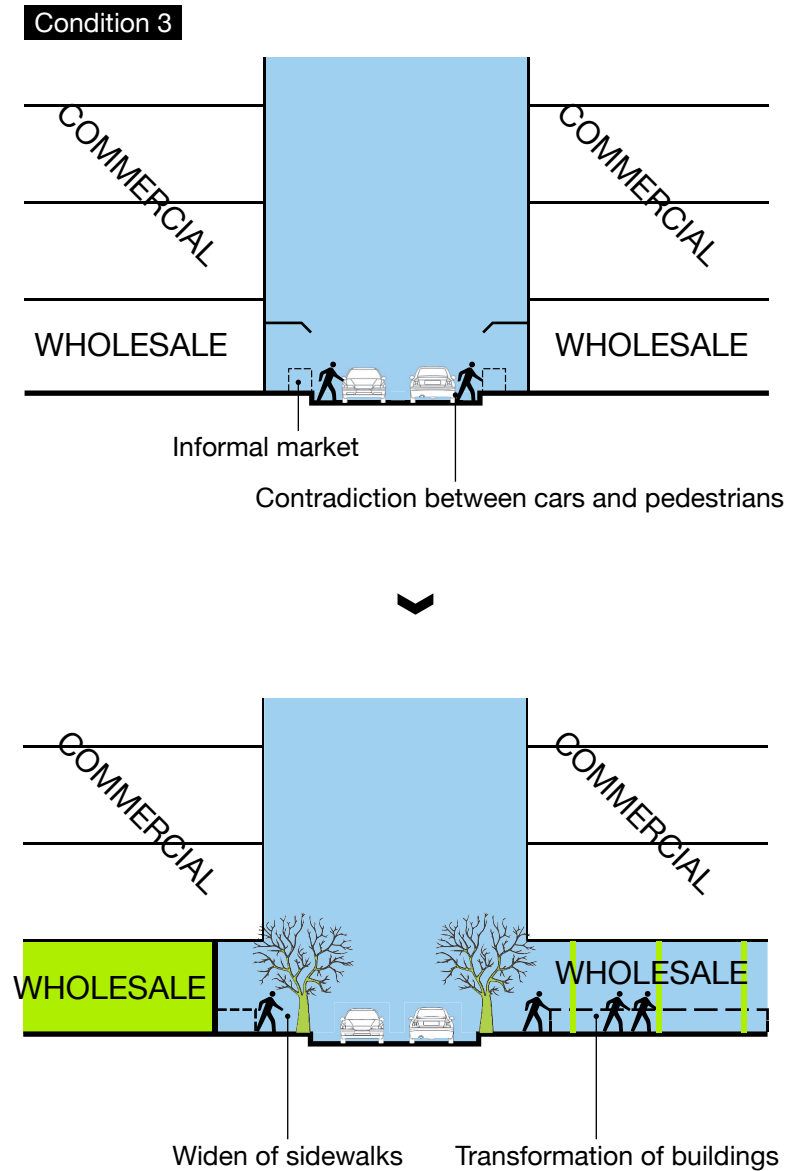
- Current situation
- ↓
- Demolish
- ↓
- Function tranform
- ↓
- New construction of buildings
- ↓
- Landscaping
- ↓
- Facilities added
- ↓
- Improved market street



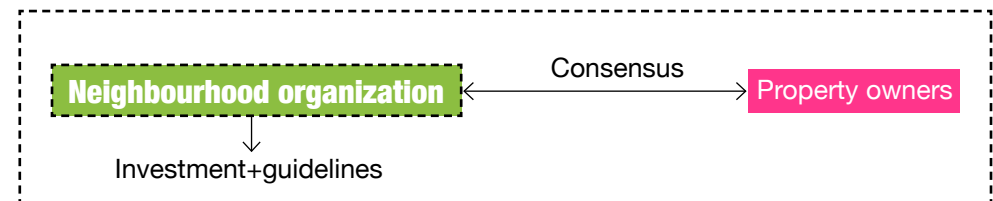


## Toolbox for intervention

### 5. Informal market street---large scale public building



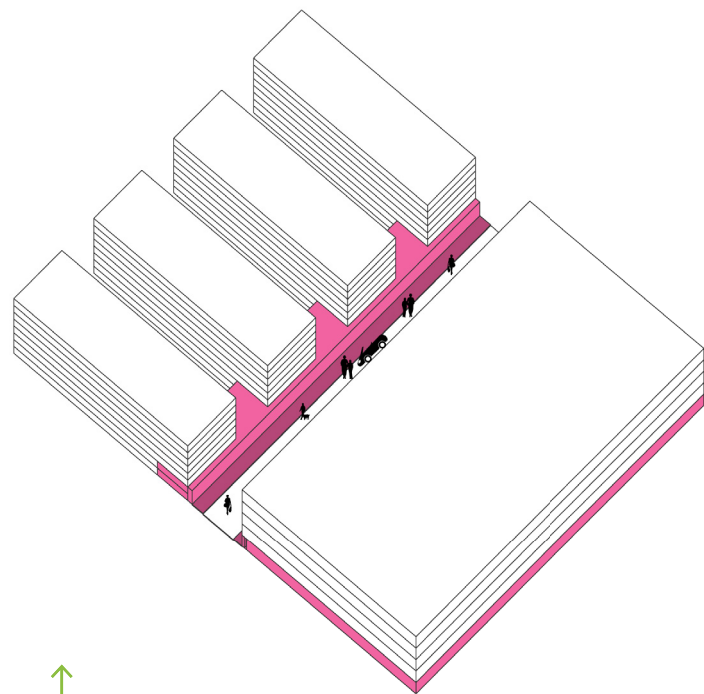
### Consensus Model



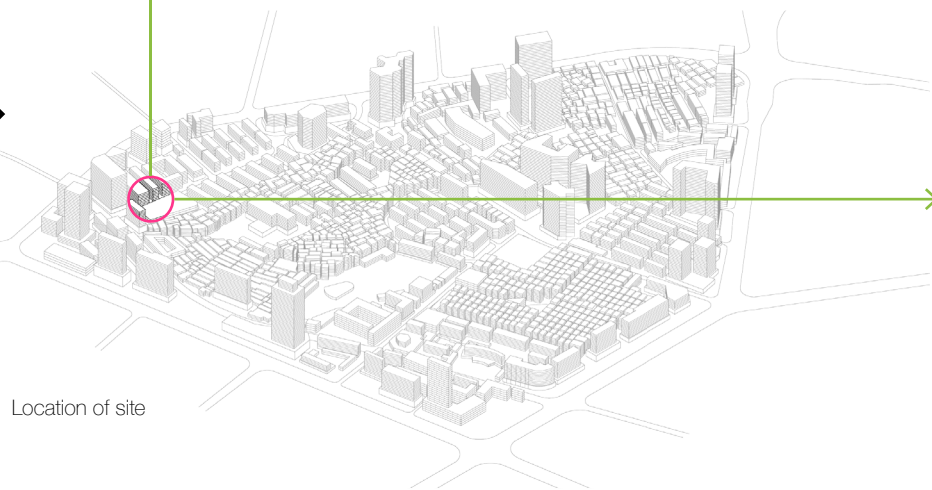


# 5. Informal market street

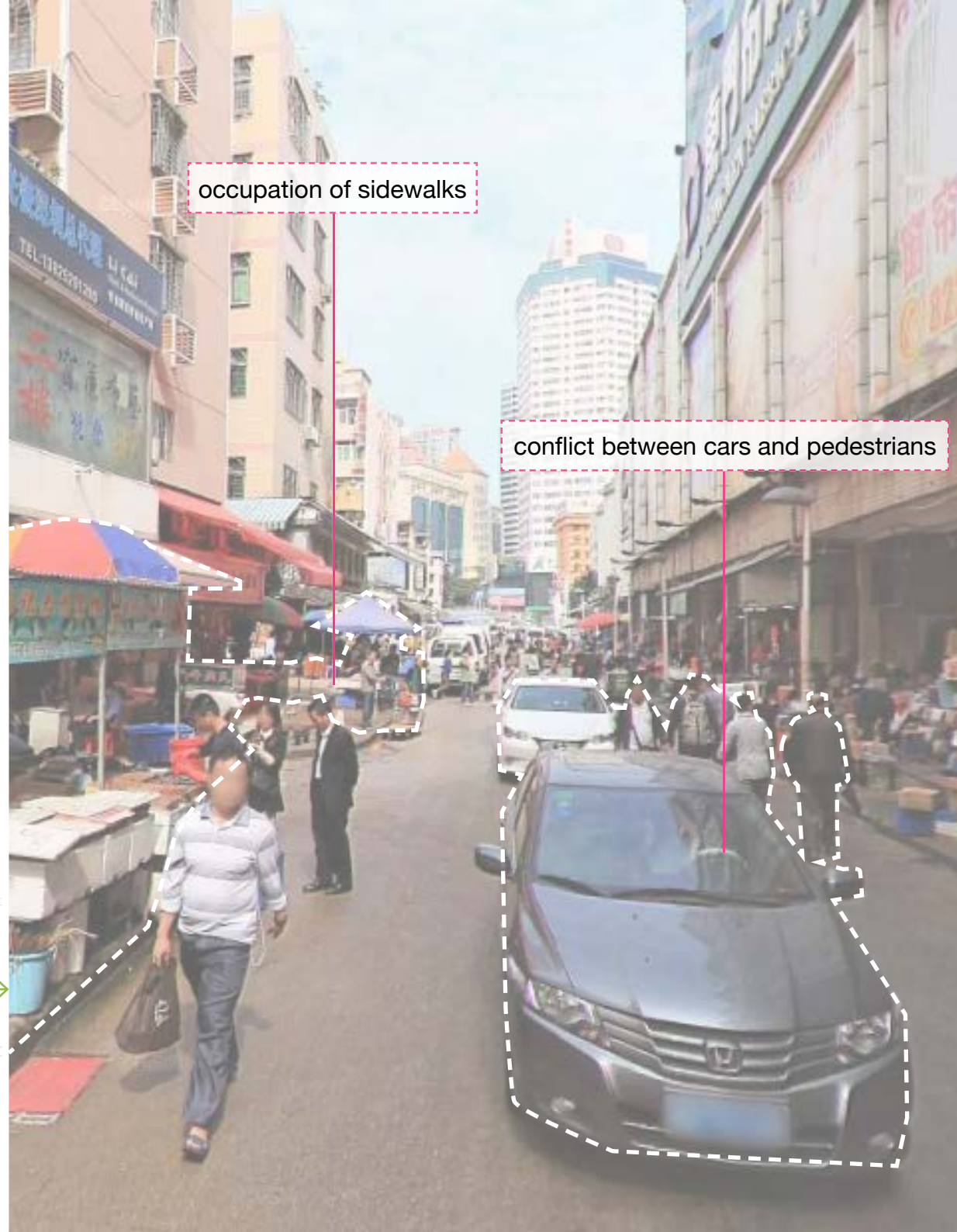
Strategy  
& Intervention



Transformed

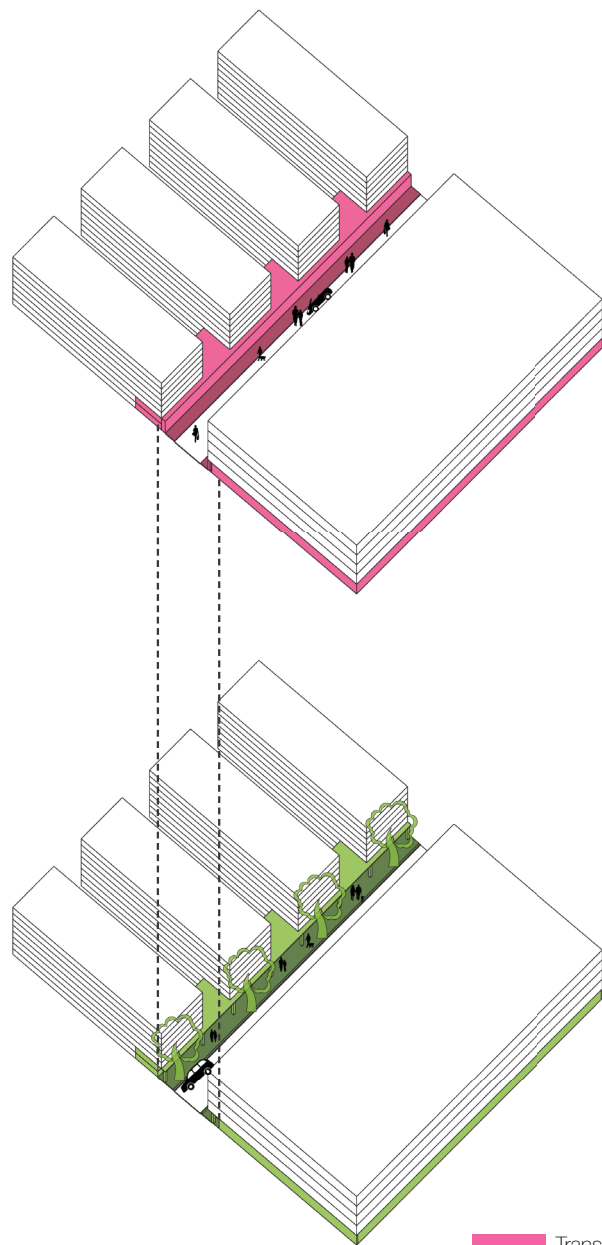


Location of site





# 5. Informal market street

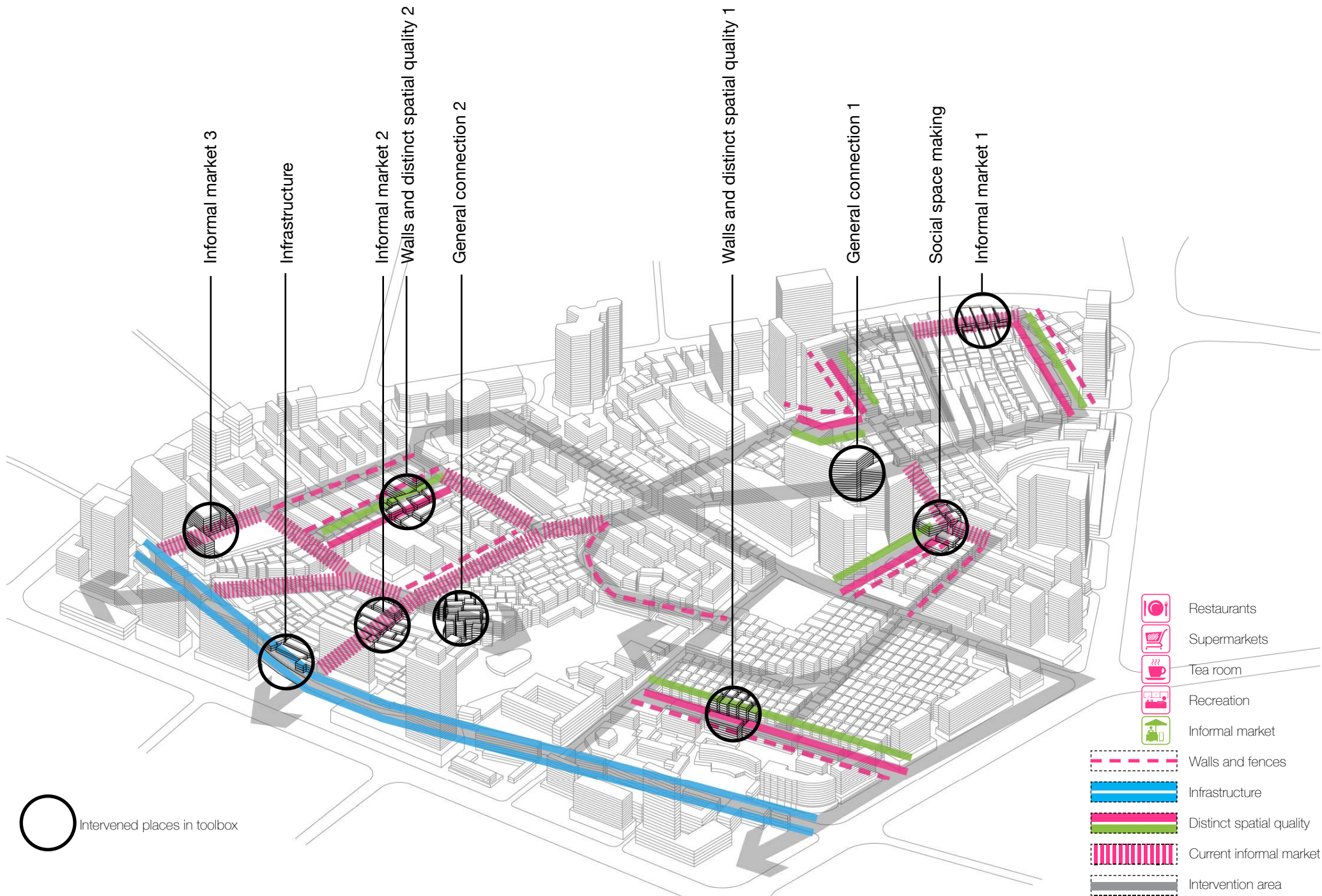


**Current situation**  
↓  
**Ground-floor tranform**  
↓  
**Widen of sidewalks**  
↓  
**Landscaping**  
↓  
**Improved market street**

Transformed buildings and space  
Added or improved new elements









## Toolbox summary



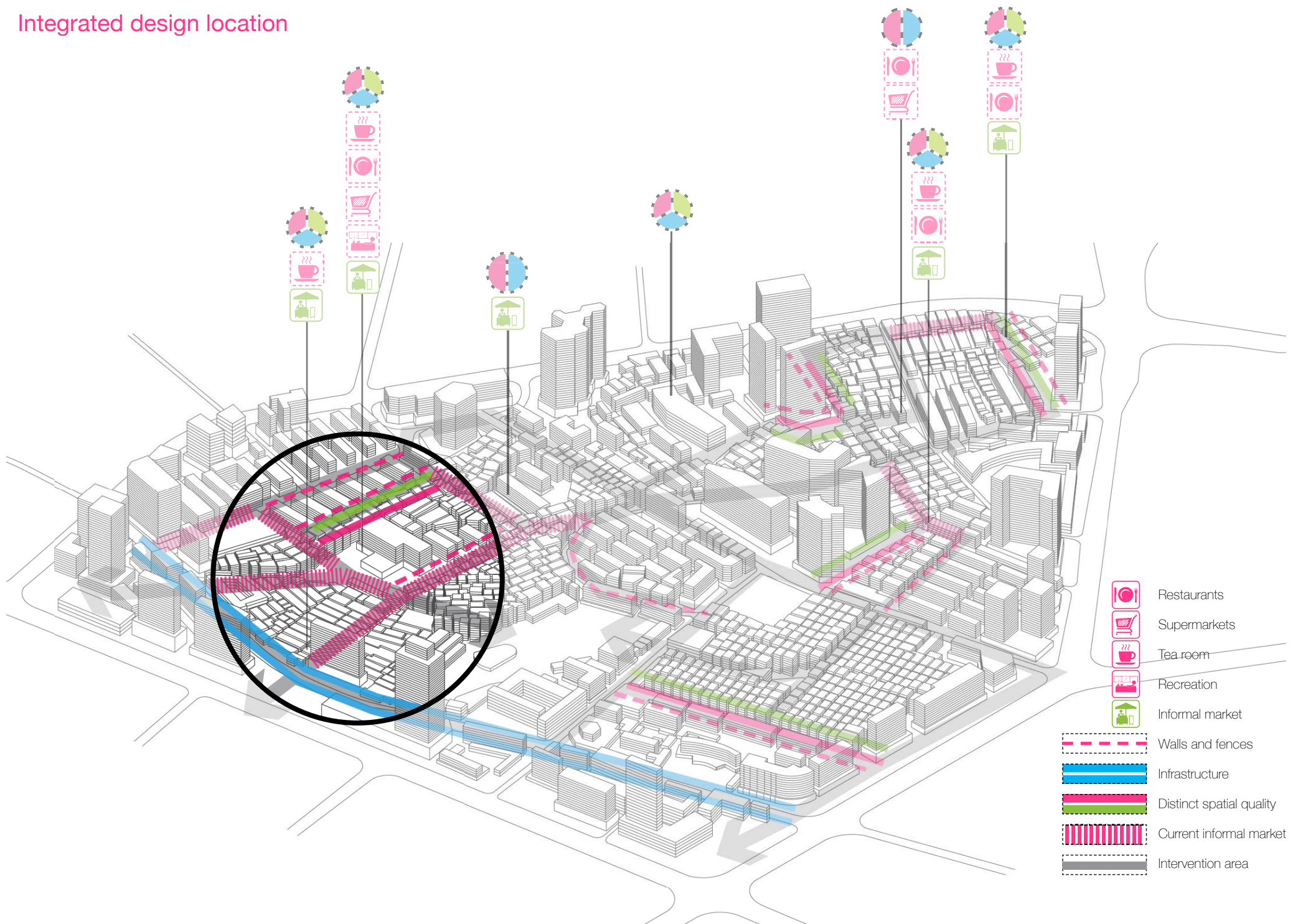
Transformation Type			Spatial Intervention	Interest-balance Model
1. General connection	Mixed-use streets		Widen of sidewalks; Reconstruction of buildings; landscaping	Self-organised
	Pedestrian routes		Reconstruction of buildings; Public facilities added; landscaping	Self-organised
2. Physical boundary---Infrastructure			Widen of sidewalks; Public facilities added; landscaping	Organization-supported
3. Physical boundary ---Walls & distinct spatial quality	Enough space		Widen of sidewalks; Public facilities added; Landscaping	Organization-supported + Consensus
	Limited space		Reconstruction of buildings; Function transformed; Landscaping	Self-organised + Consensus
4. Social space making			Transformation of buildings; Demolish of buildings; Public facilities added; Landscaping	Trade-off
5. Informal-market street	Mixed-use streets		Groundfloor transformation; Widen of sidewalks; Landscaping	New developer-involved
	Pedestrian routes	One-side transformation	Transformation of buildings; Demolish of buildings; Landscaping	New developer-involved
		Two-side transformation	Transformation of buildings; Demolish of buildings; Public facilities added; Landscaping	New developer-involved



# Where to start?



## Integrated design location



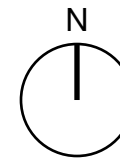


## Current situation

Existing buildings  
Roads for cars  
Pedestrian only

Green space  
Water  
Tree

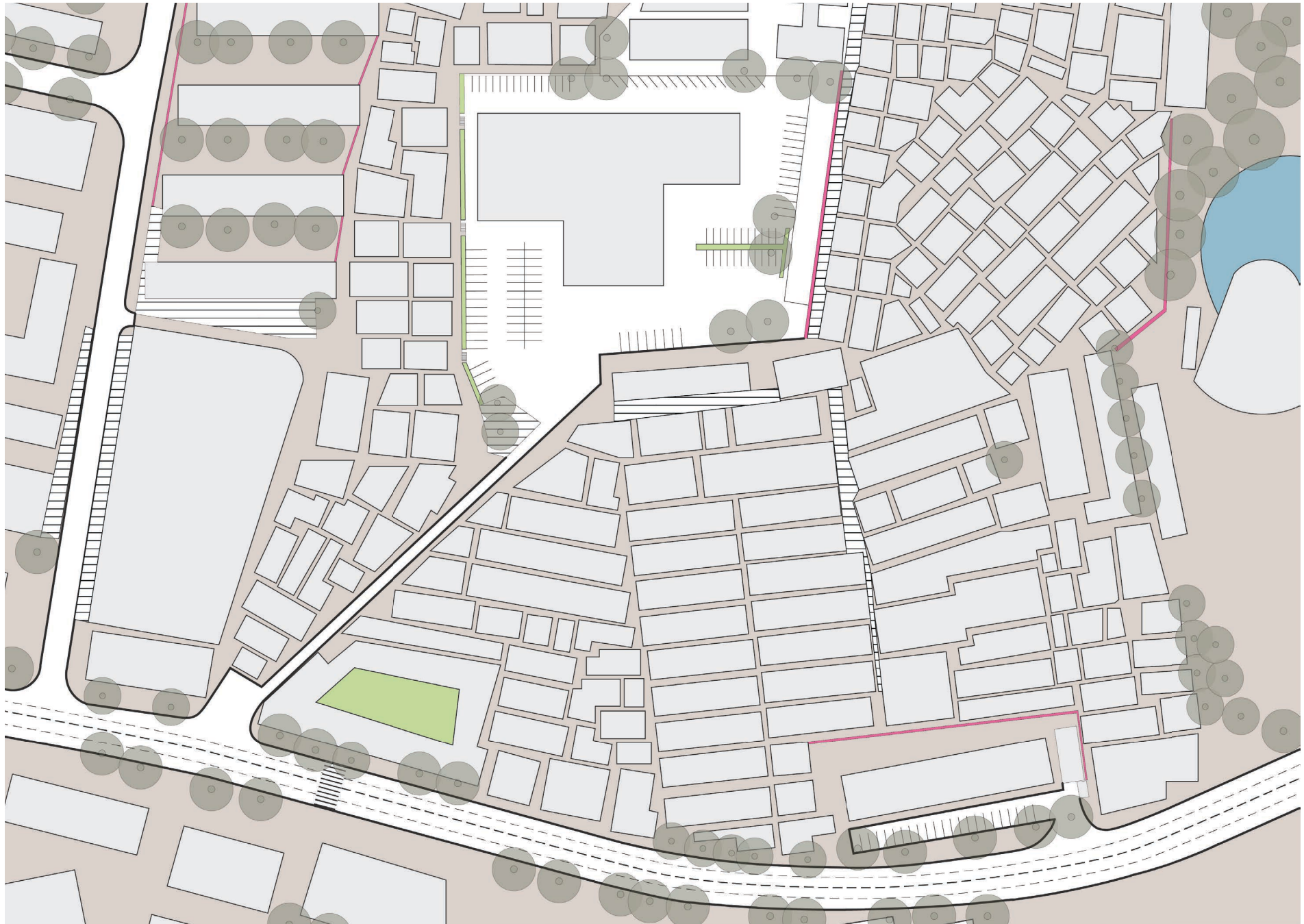
Informal market  
Parking  
Walls



20M

40M

80M





## Current situation

Parking

Low-end market



Strategy & Intervention

Strategy & Intervention



## Current situation

Parking

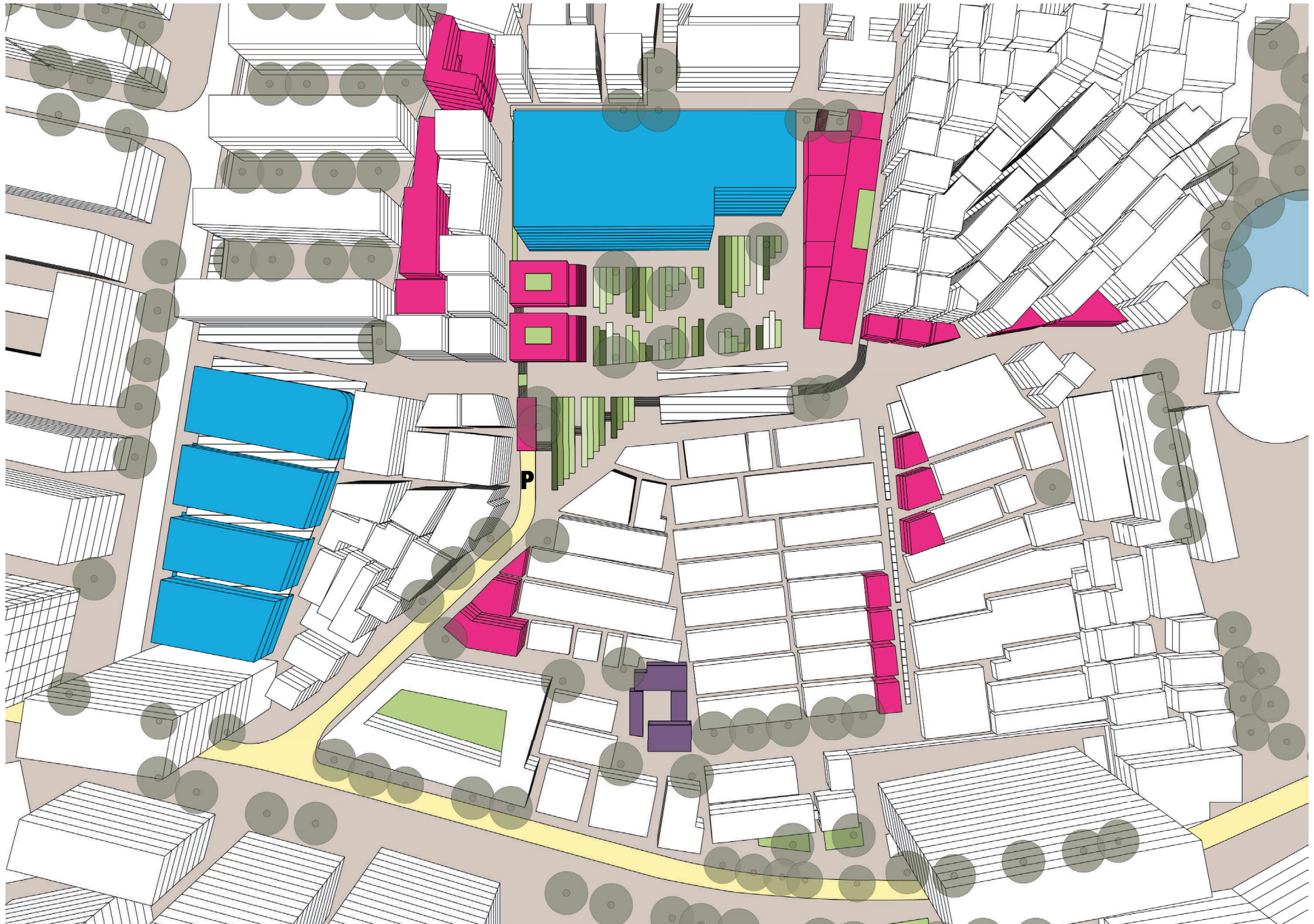
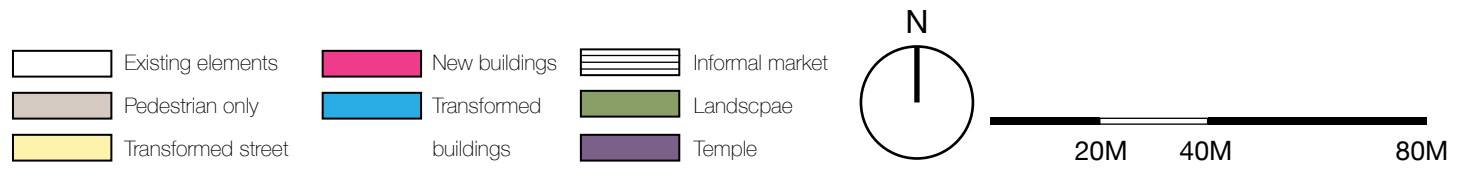
Lack of social space

Low-end market





# Master plan

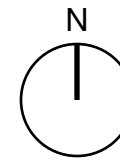




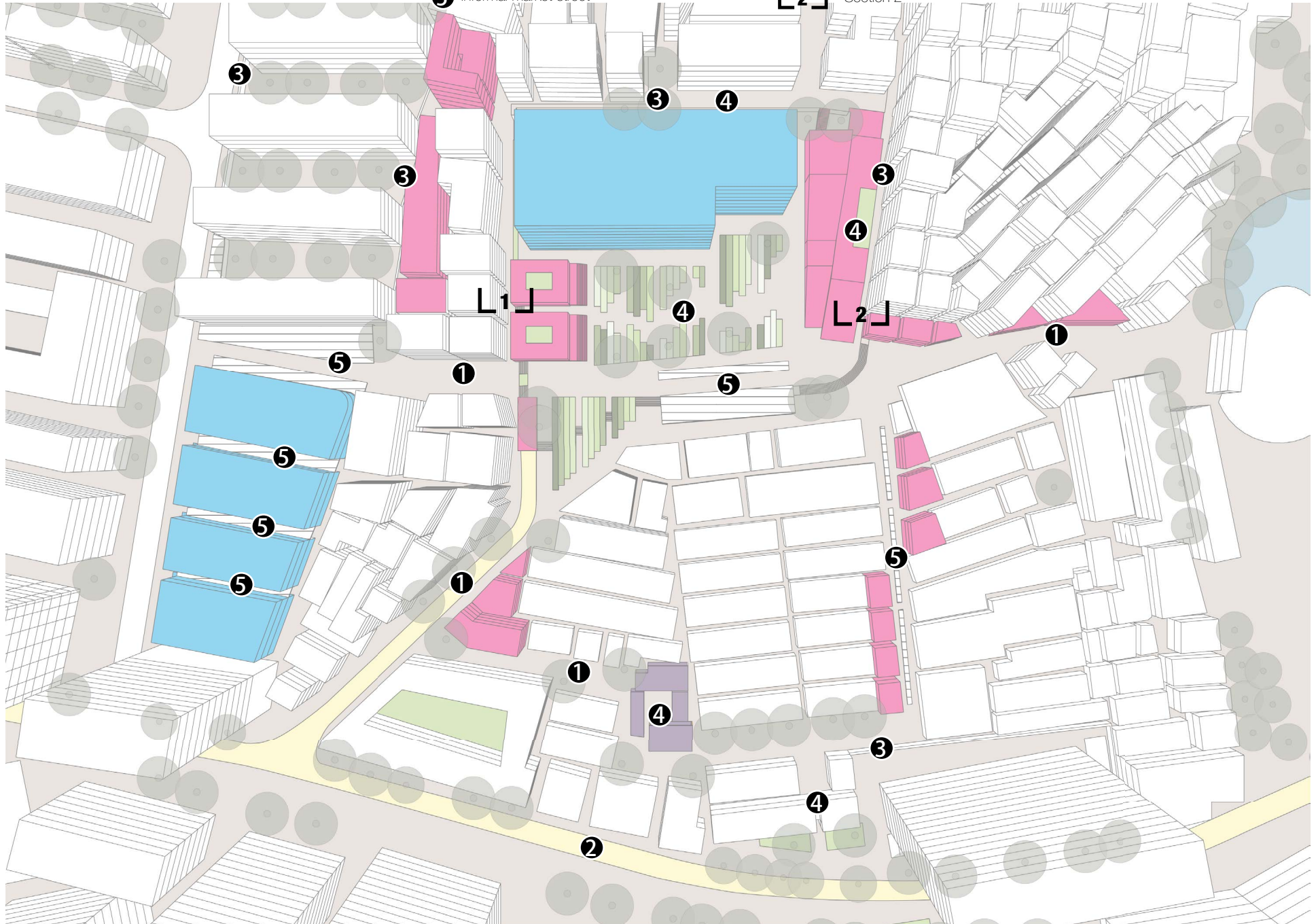
## Toolbox application

- ① General connection
- ② Physical boundary---Infrastructure
- ③ Physical boundary---Wall & distinct spatial quality
- ④ Social space
- ⑤ Informal market street

L1 Section 1  
L2 Section 2



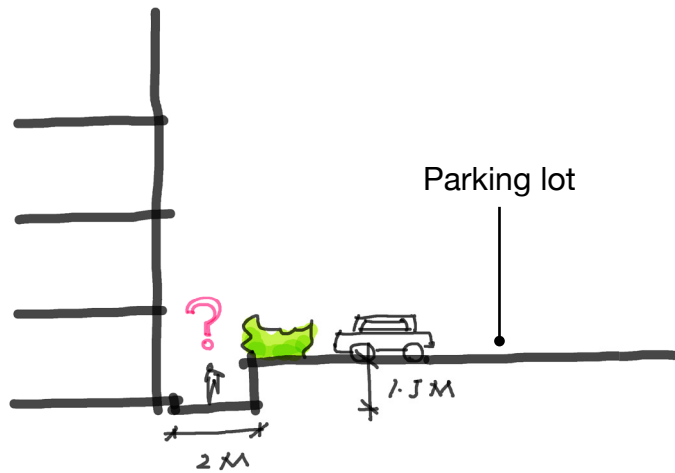
20M 40M 80M



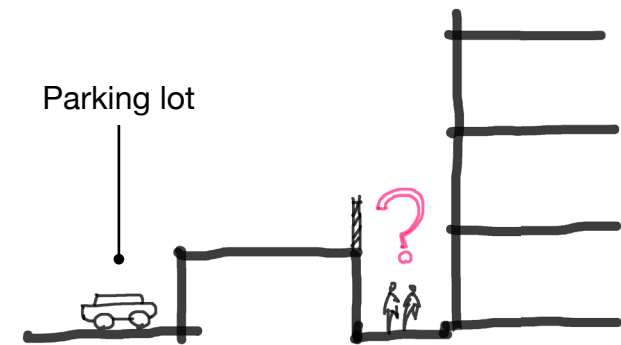


## Sections

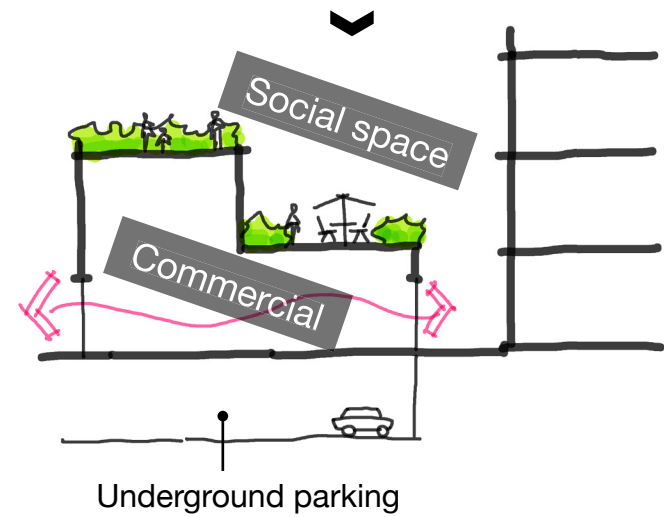
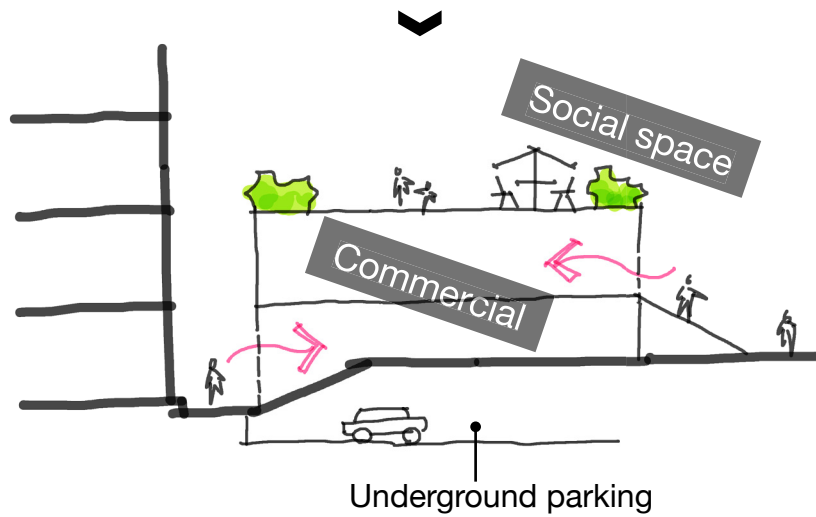
Section 1



Section 2



*Current situation*



*Proposal*



Proposed image





Proposed image

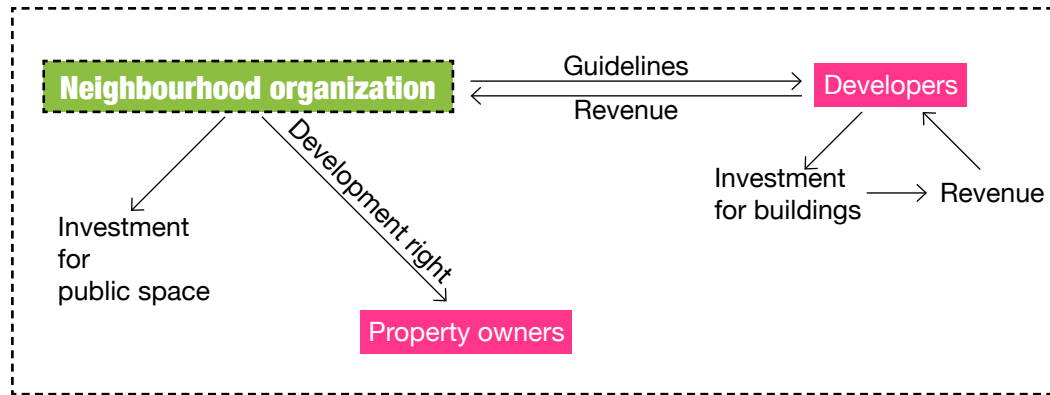




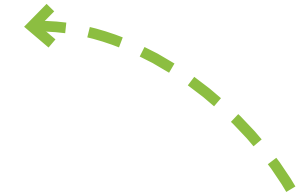
# **Part 6** Conclusion & Reflection



## Challenge

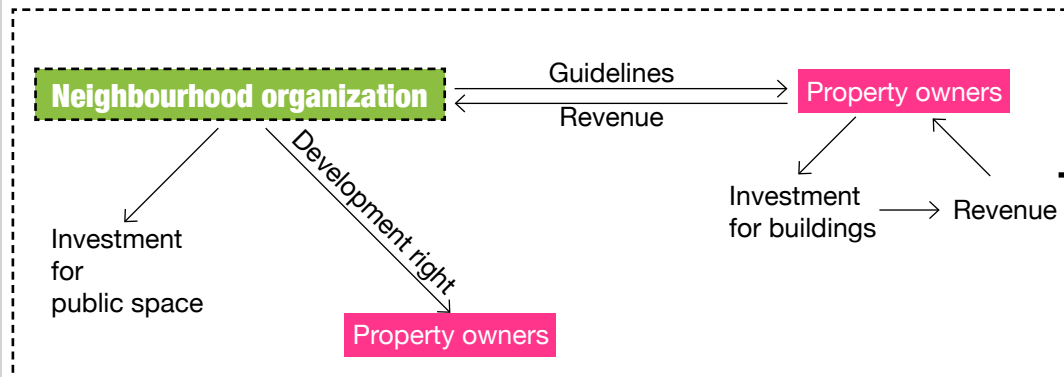


**High cost?  
Long pay back period?**

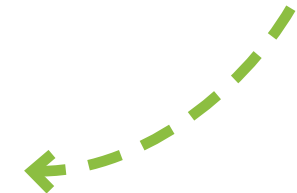


Encouragement subsidy?  
Pilot project?

**Institutional Force**



**Too much risk?  
Unable to balance?**





**Thanks!**