

OPENING THE BESIEGED CITY

Exploring an inclusive development strategy for Tin Shui Wai in Hong Kong



Photograph of Tin Shui Wai in Hong Kong (by HKAVMODE)



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External examiner: Reinier van der Kuij

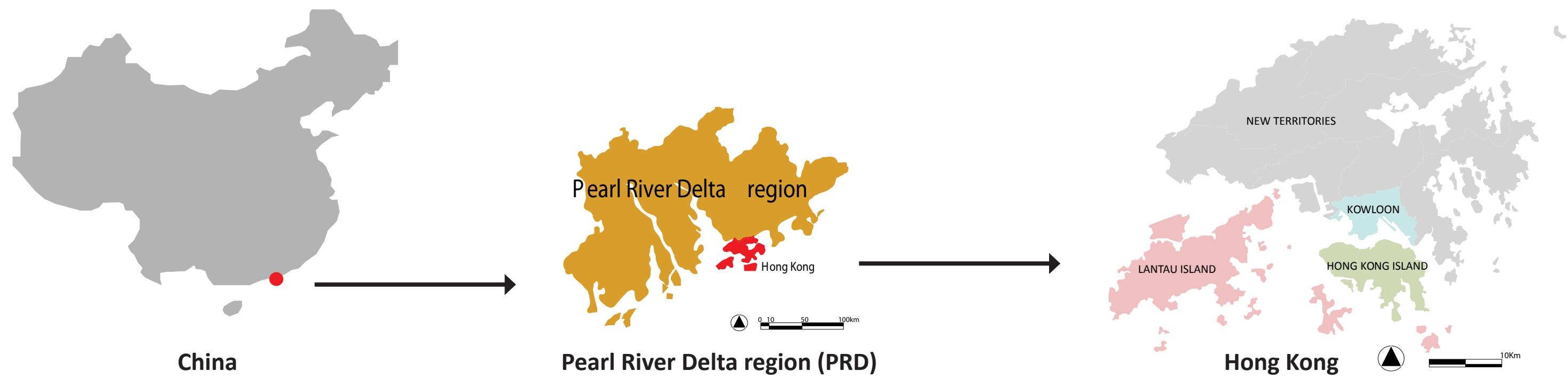
天水圍的日與夜
The way we are



1. Problem Statement
2. Project Area - TSW
3. Methodology & Theoretical support
4. Vision
5. Strategy
6. Design
7. Conclusion



Problem Statement



Problem Statement



Trade port & International financial metropolis
The world’s **freest, most competitive & most service-oriented** economy

Hybrid News Limited

asian correspondent.com

Murdoch UNIVERSITY PERTH WESTERN AUSTRALIA

Calling all disc

NEWS BUSINESS TECH ENVIRONMENT MEDIA TRAVEL & LIFE EDUCATION

Correspondents Region AP News International MBAs Pathway Programs



Hong Kong tops world rich-poor gap

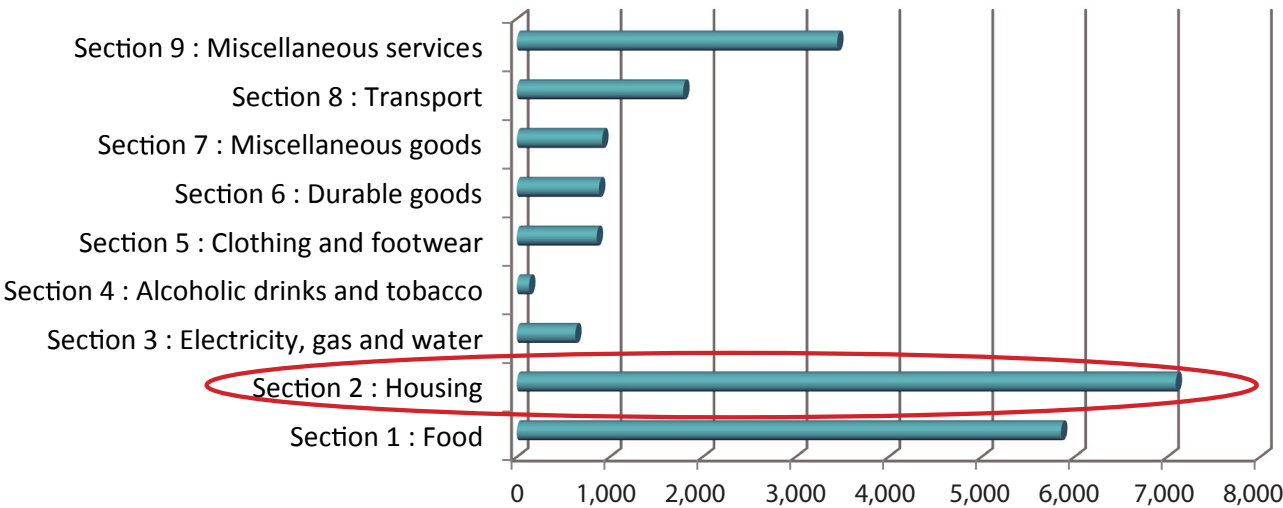
By **Elmer W. Cagape** Oct 20, 2009 10:49PM UTC

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Hong Kong is both heaven and hell, depending on who you ask. Heaven to wealthy tourists

Average Monthly Household Expenditure (HK\$)



HK tops world **rich-poor gap** in 2009, **18.1%** population live in poverty
Housing cost the most for household

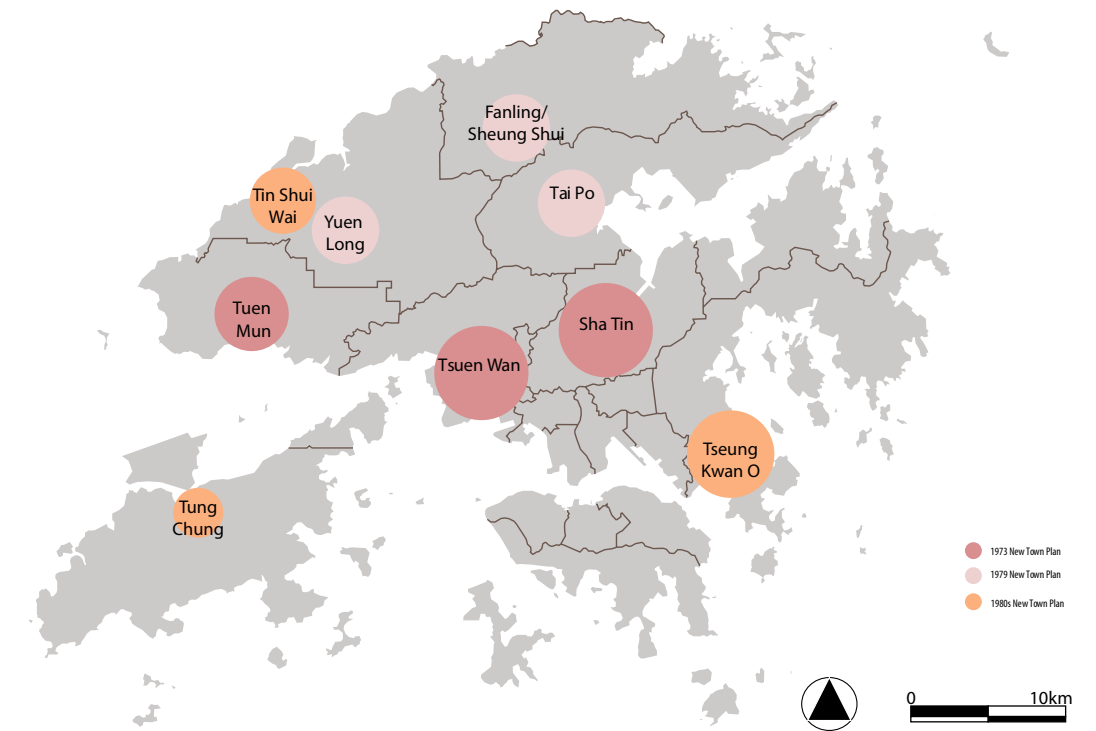
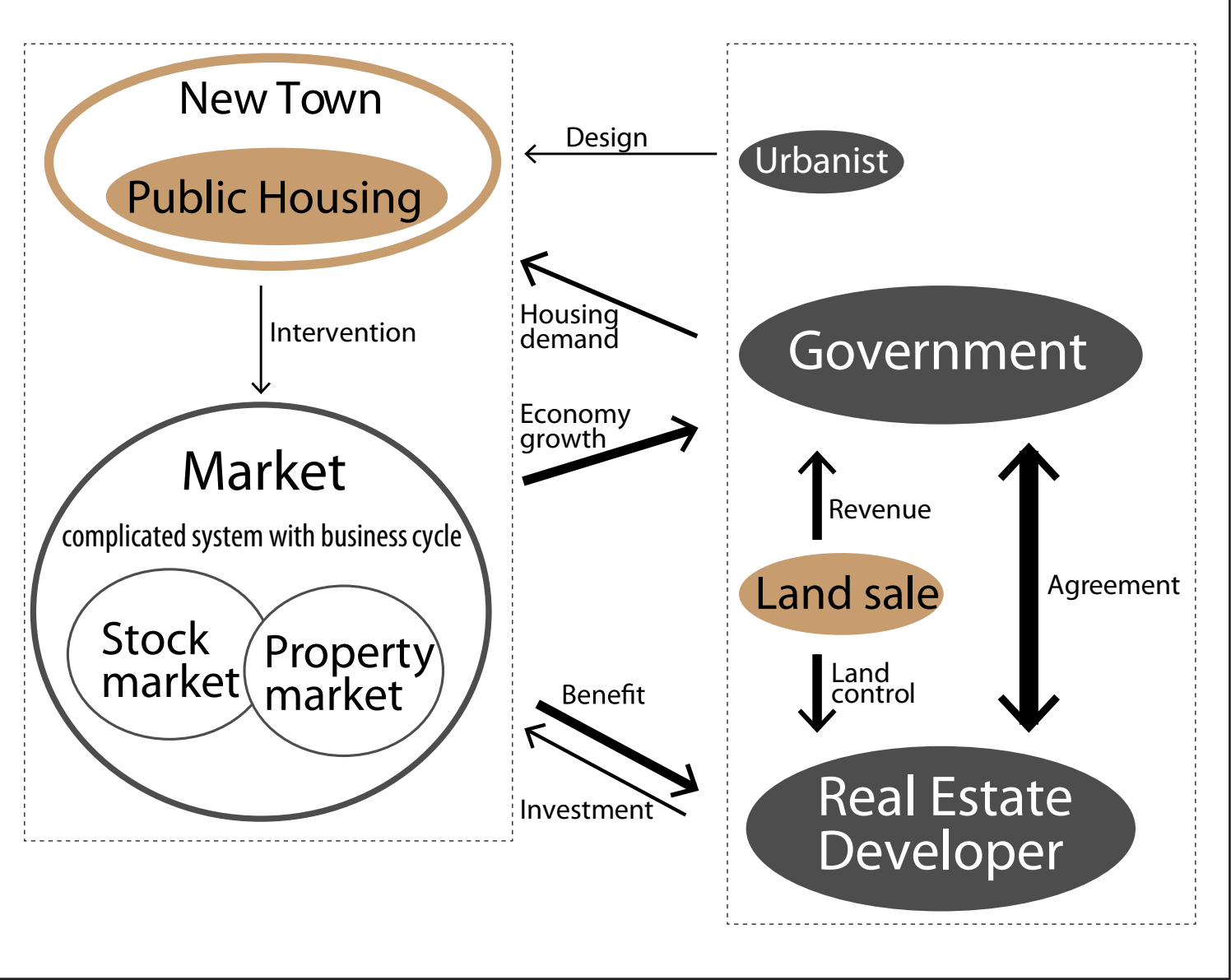
Problem Statement



HK residents protest against extreme high **housing price**
They called for more **public housing**

Chief executive said: **housing solution** would be the first priority of the coming policies. 14/10/2011

Problem Statement



9 new towns in Hong Kong

Land sale & Property market: complicated system and crucial for HK's economy

Public housing: Intervention to meet housing demand & decrease housing price

New town: public housing construction

Problem Statement

	Pre - 1954	1954-1972	1972-1986	1987-2002	2002 - now
Dominant power	Market	Government intervention (land and housing sale)			Big market small government
Target groups	Fire victims	residents of planned area	working class	low-income middle-income	low-income
Housing type	Squatter	resettlement	low-cost housing	subsidized sale housing public rental housing	

HK: **Public housing** ≠ **welfare** (economy growth, social stability, control land)
Public housing system before 1990s: housing provision based on existing employment, people are grateful.

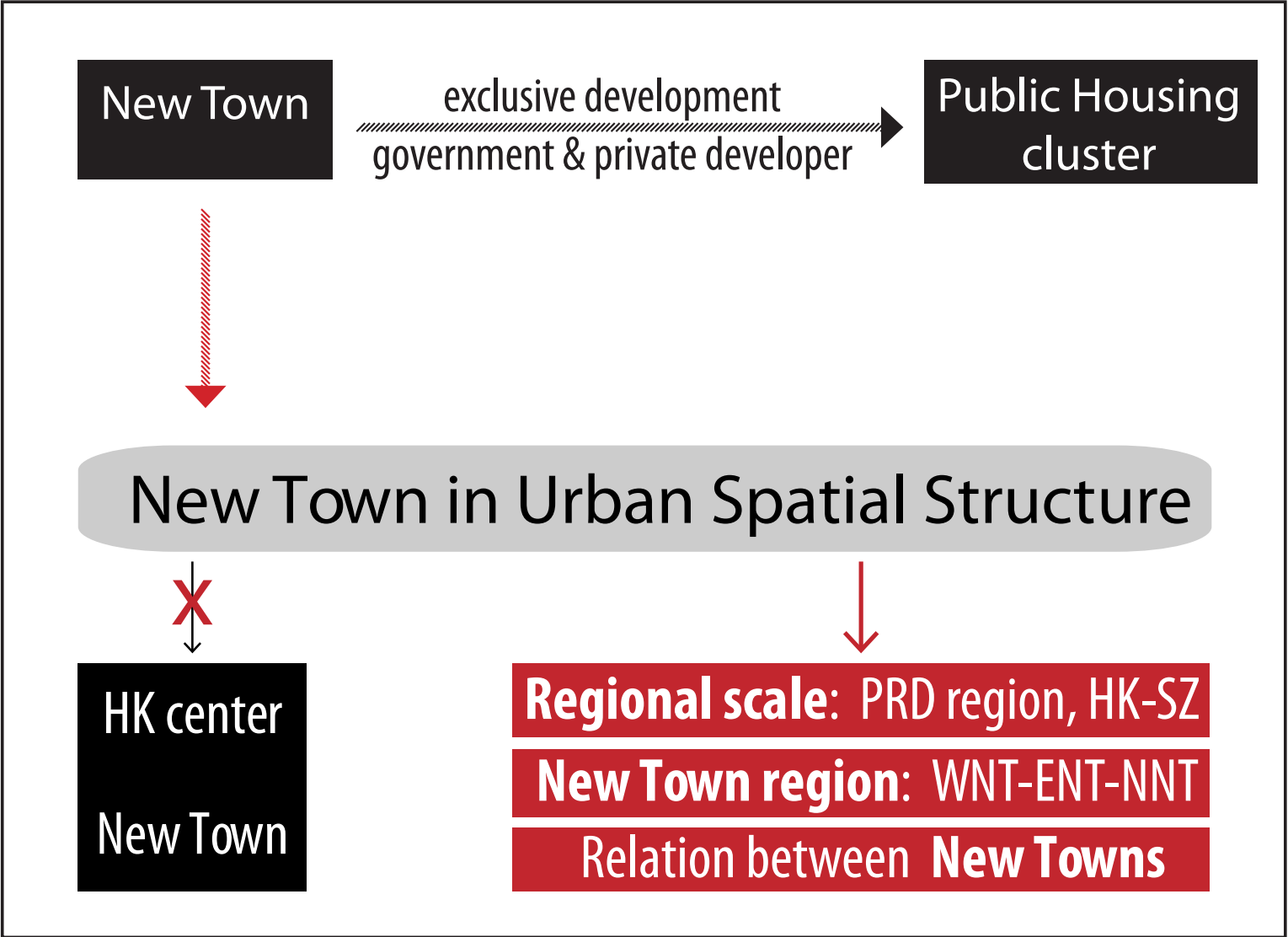
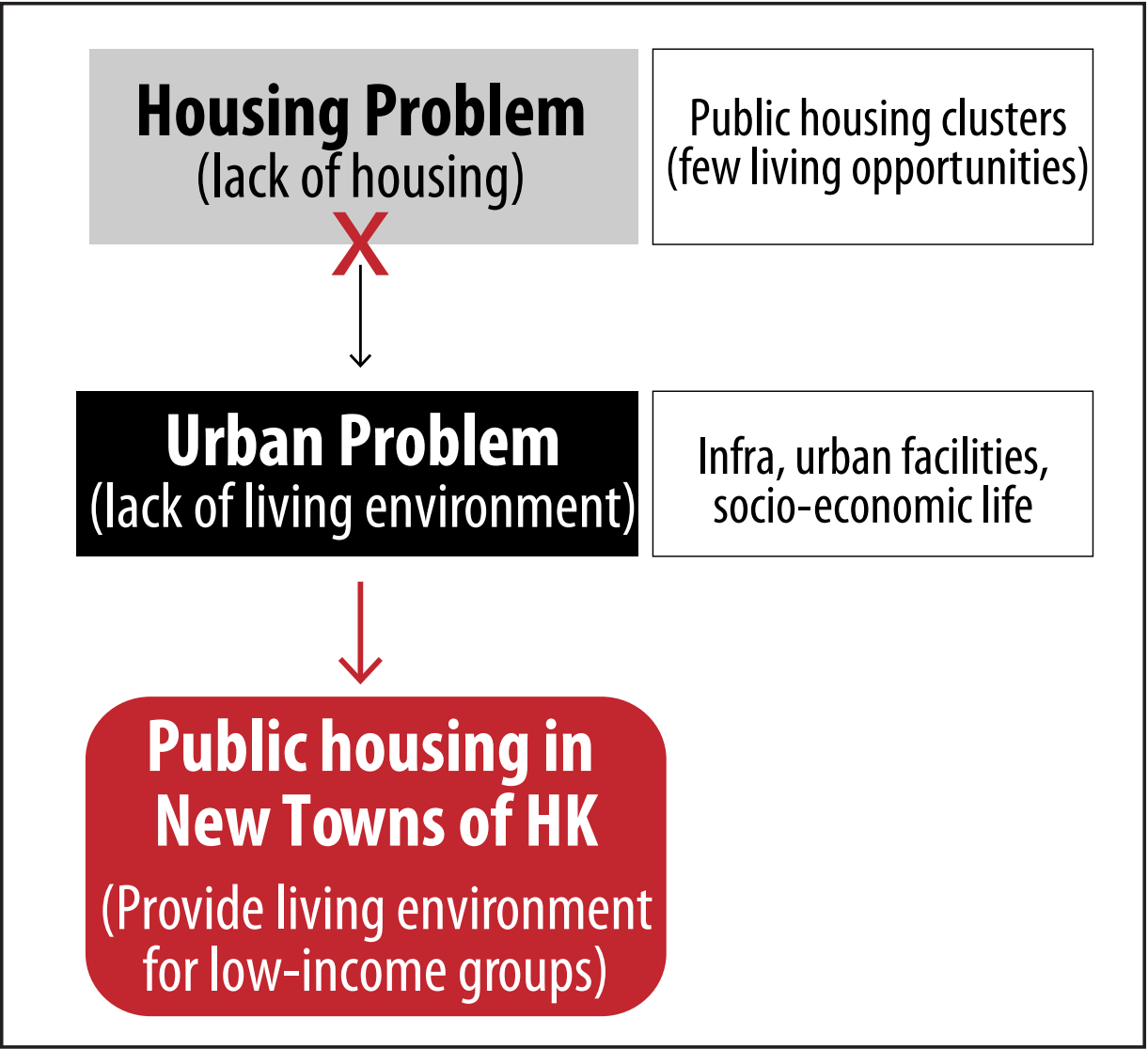
HK : close to **Liberal**
US/ UK: deprived public housing communities

HK: Public housing clusters in New town without living opportunities

	Social-democratic	Corporatist	Liberal
Stratification	<ul style="list-style-type: none">• low	<ul style="list-style-type: none">• high, based on social status	<ul style="list-style-type: none">• high, based on income
Dominant power	<ul style="list-style-type: none">• state	<ul style="list-style-type: none">• amily, NGO	<ul style="list-style-type: none">• market
housing objectives	<ul style="list-style-type: none">• universal high housing quality	<ul style="list-style-type: none">• preserve social stratification• stimulate private actors	<ul style="list-style-type: none">• state only support marginal groups
subsidisation	<ul style="list-style-type: none">• large scale production subsidies• subject subsidies for large target groups	<ul style="list-style-type: none">• segmented subsidies: specific arrangement for specific groups	<ul style="list-style-type: none">• mean-tested subject subsidies• few production subsidies
price setting & regulation	<ul style="list-style-type: none">• strong state influence	<ul style="list-style-type: none">• moderate state influence to correct negative effect of market	<ul style="list-style-type: none">• market determination
housing allocation	<ul style="list-style-type: none">• on basis of need	<ul style="list-style-type: none">• state intervention to correct market• certain groups be favoured	<ul style="list-style-type: none">• market determination• regulated allocation in small part (reserve for low-income groups)
organisation	<ul style="list-style-type: none">• strict spatial planning	<ul style="list-style-type: none">• moderate strict spatial planning	<ul style="list-style-type: none">• no strict spatial planning
housing provision	<ul style="list-style-type: none">• state takes initiative for new housing production	<ul style="list-style-type: none">• private sector (households, small companies) takes initiative	<ul style="list-style-type: none">• private sector (mainly big companies) takes initiative

Differences between the housing systems of the welfare state regimes, Based on source: Hoekstra, 2003

Problem Statement



Project Area - TSW



1980s



1994

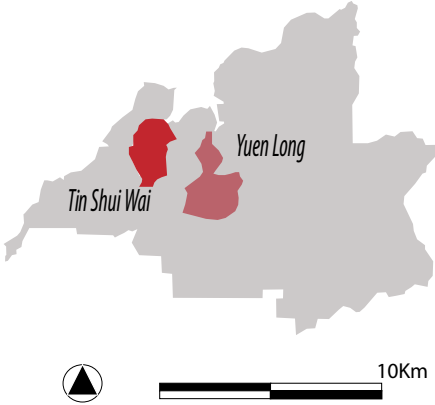
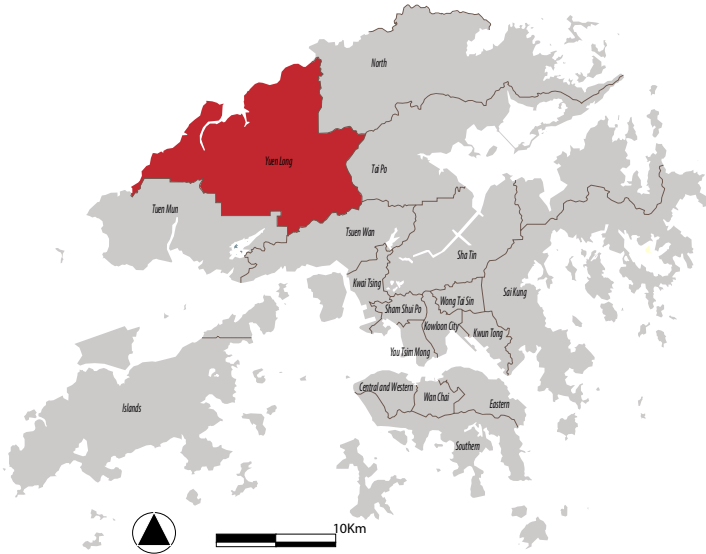


1997



2005

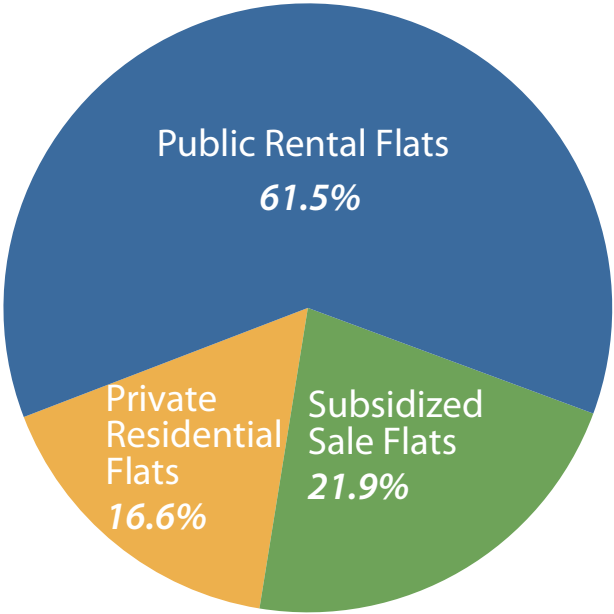
Project Area - TSW



TSW in Yuen Long District



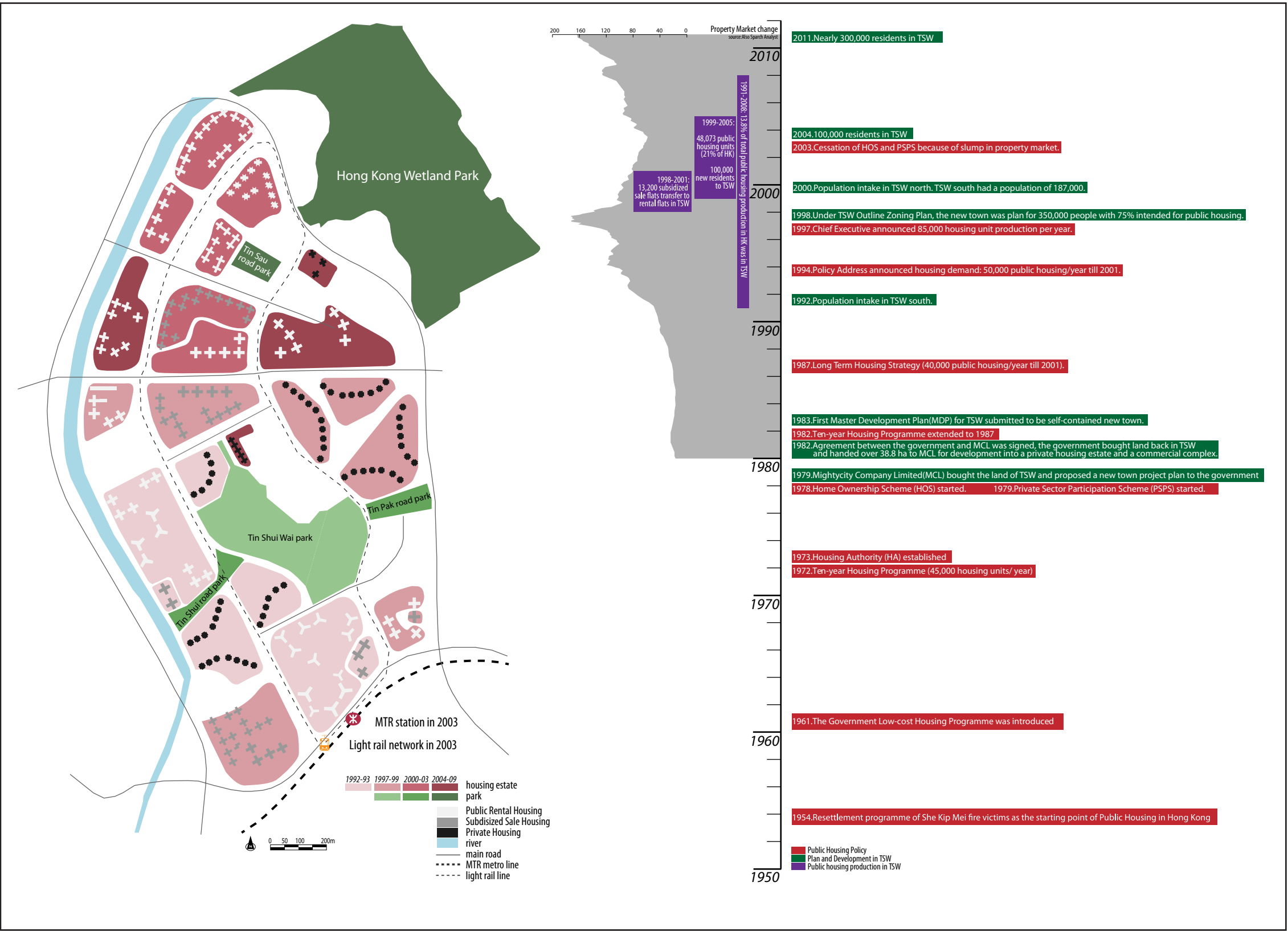
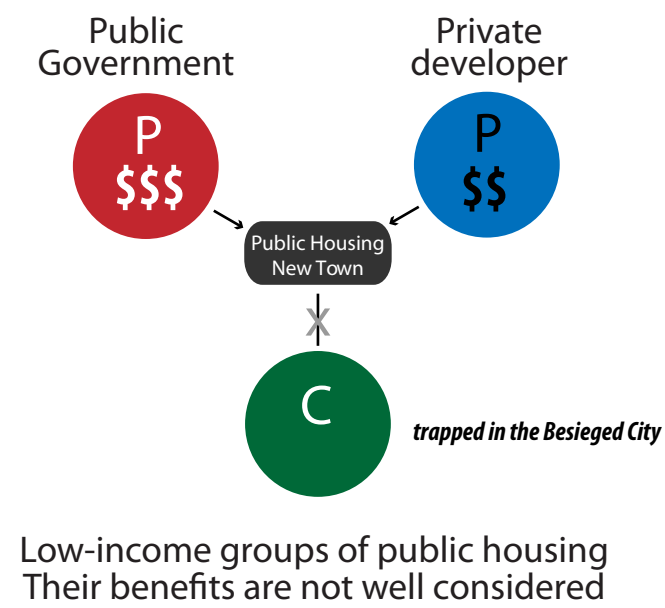
TSW: 300,000 residents on 4.88 km²



Type of Quarters	Households
Public rental flats	165,319
Subsidized sale flats	58,900
Private residential flats	44,703
TOTAL	268,922

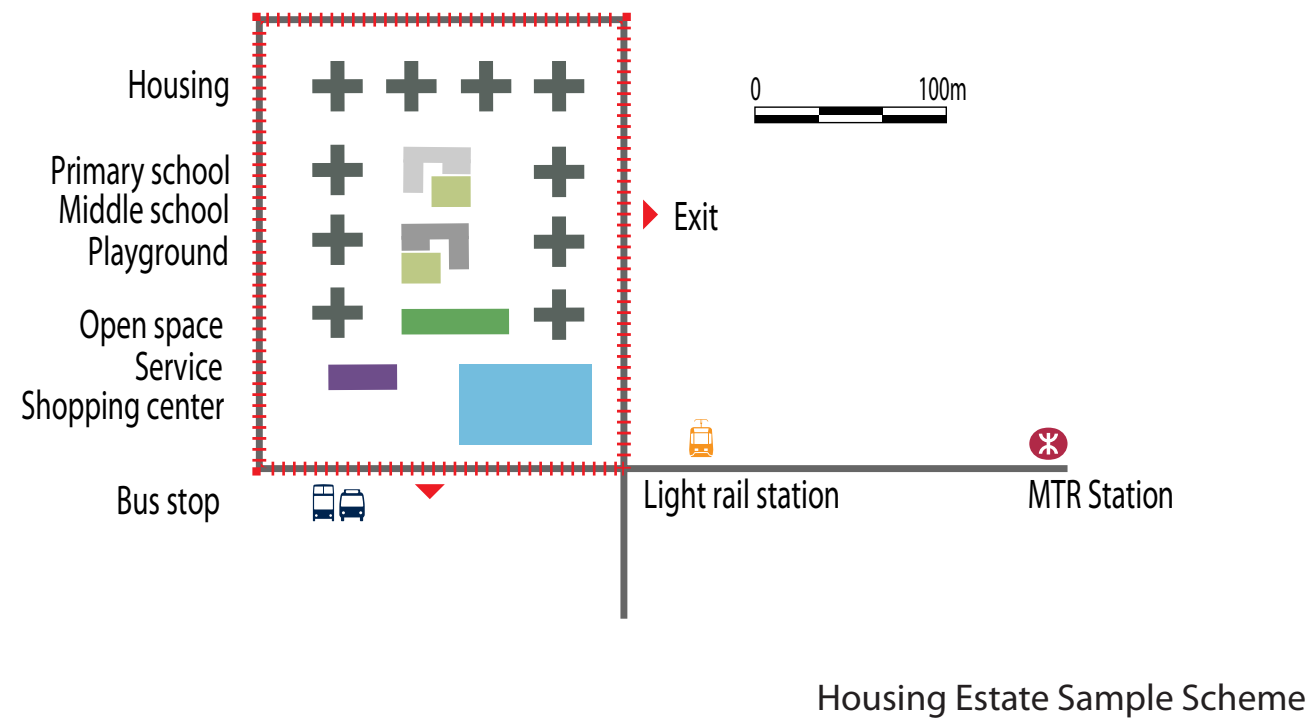
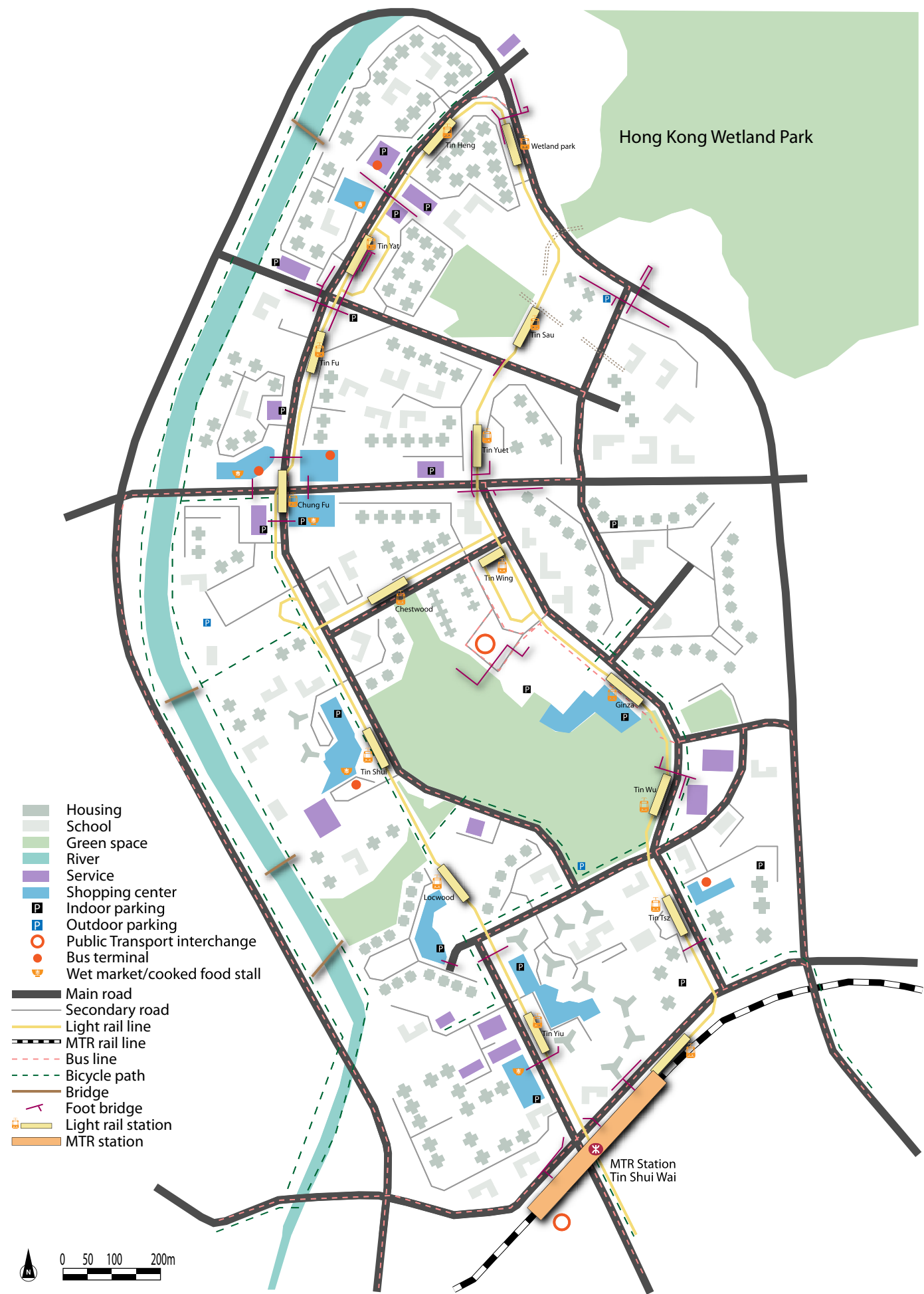
Public housing in TSW

Besieged City - Development & Planning Approach

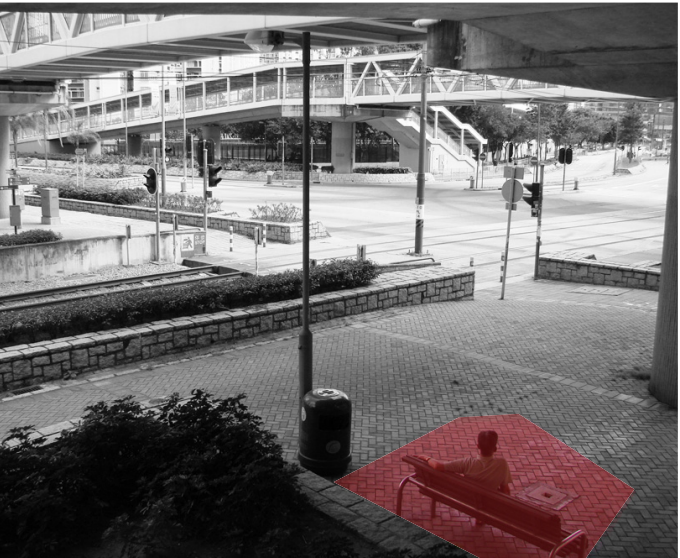
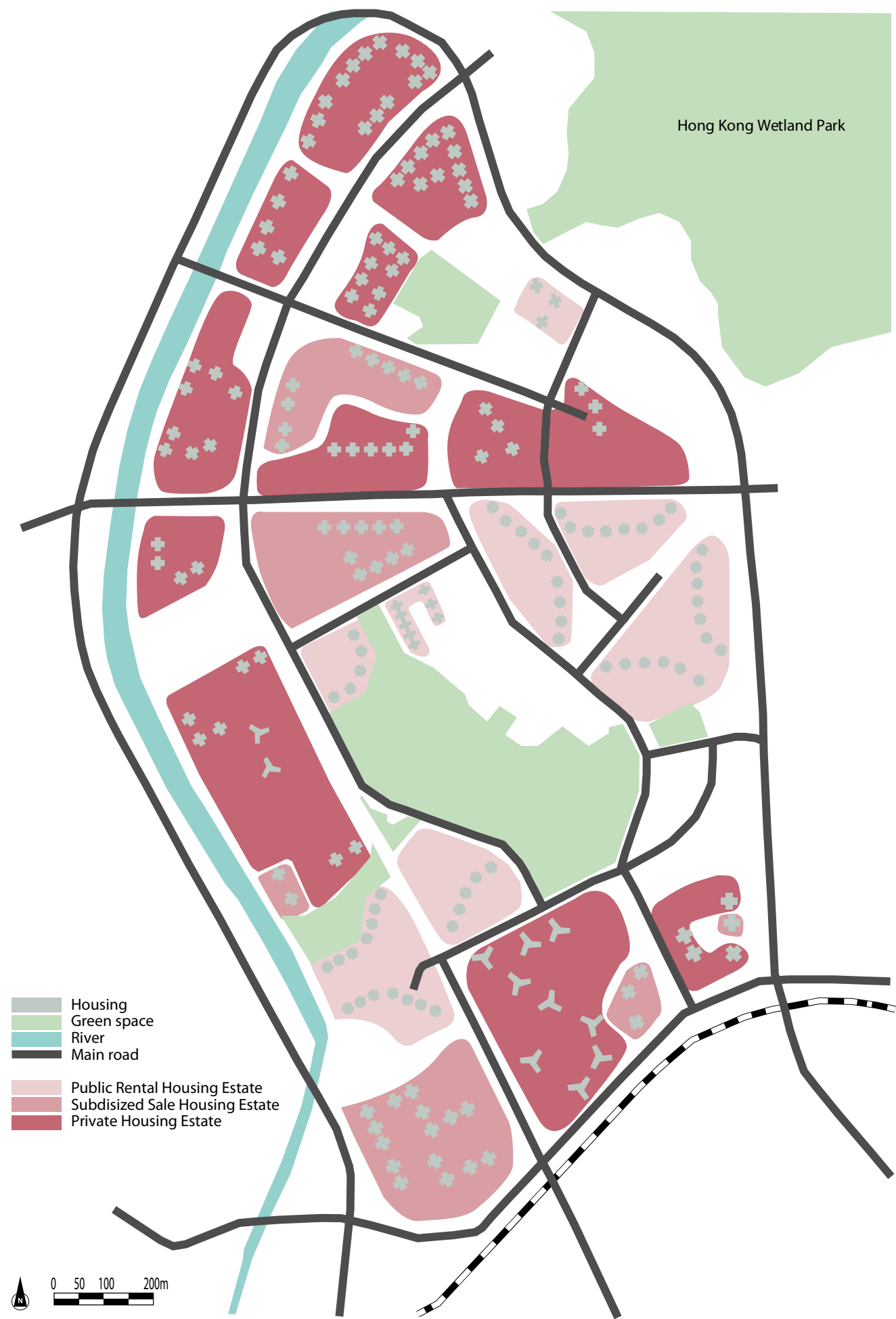


Large public housing demand of public sector & economic benefit of private developer sped up the developement of TSW and changed the 'balance development' new town plan

Besieged City - Spatial Design

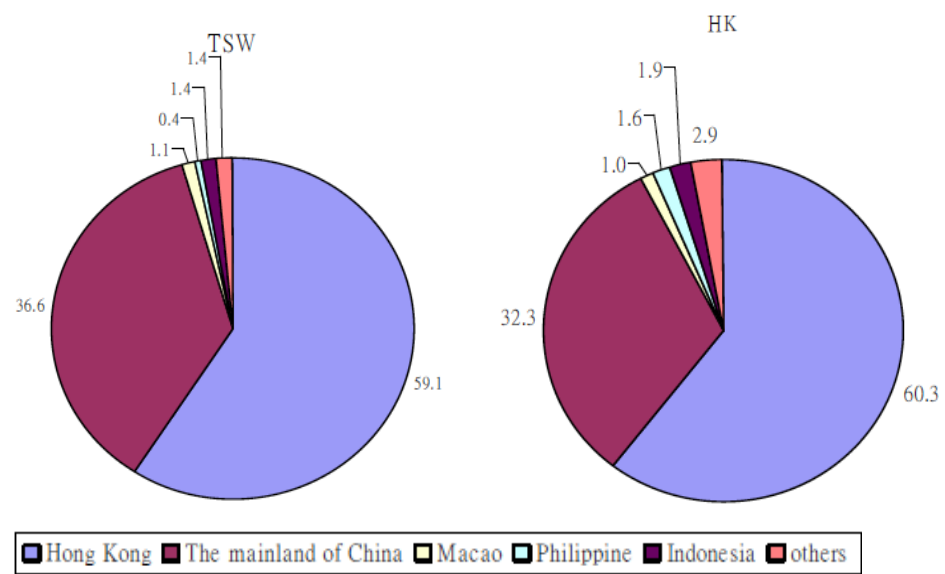


Besieged City - Spatial Design

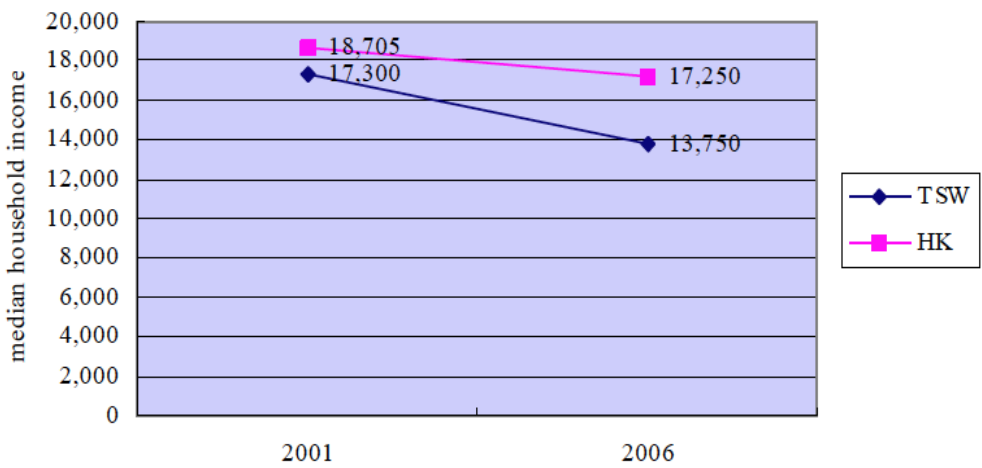


Besieged housing estates copying 15 times.
Few job opportunities inside TSW and in surrounding area
Not a new town, but a huge residential area only for sleeping rather than living.

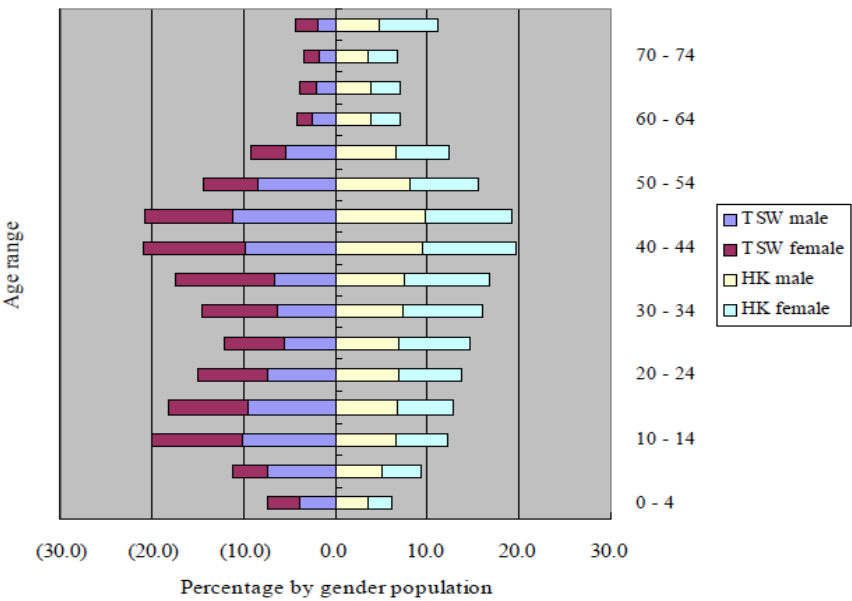
Besieged City - Bad Public Image



Birth place of residents of Tin Shui Wai and HK, source: HKU SWSA,2009



Median household income in TSW and HK in 2001 & 2006, source: HKU SWSA,2009



Age distribution in TSW and HK in 2006, source: HKU SWSA,2009

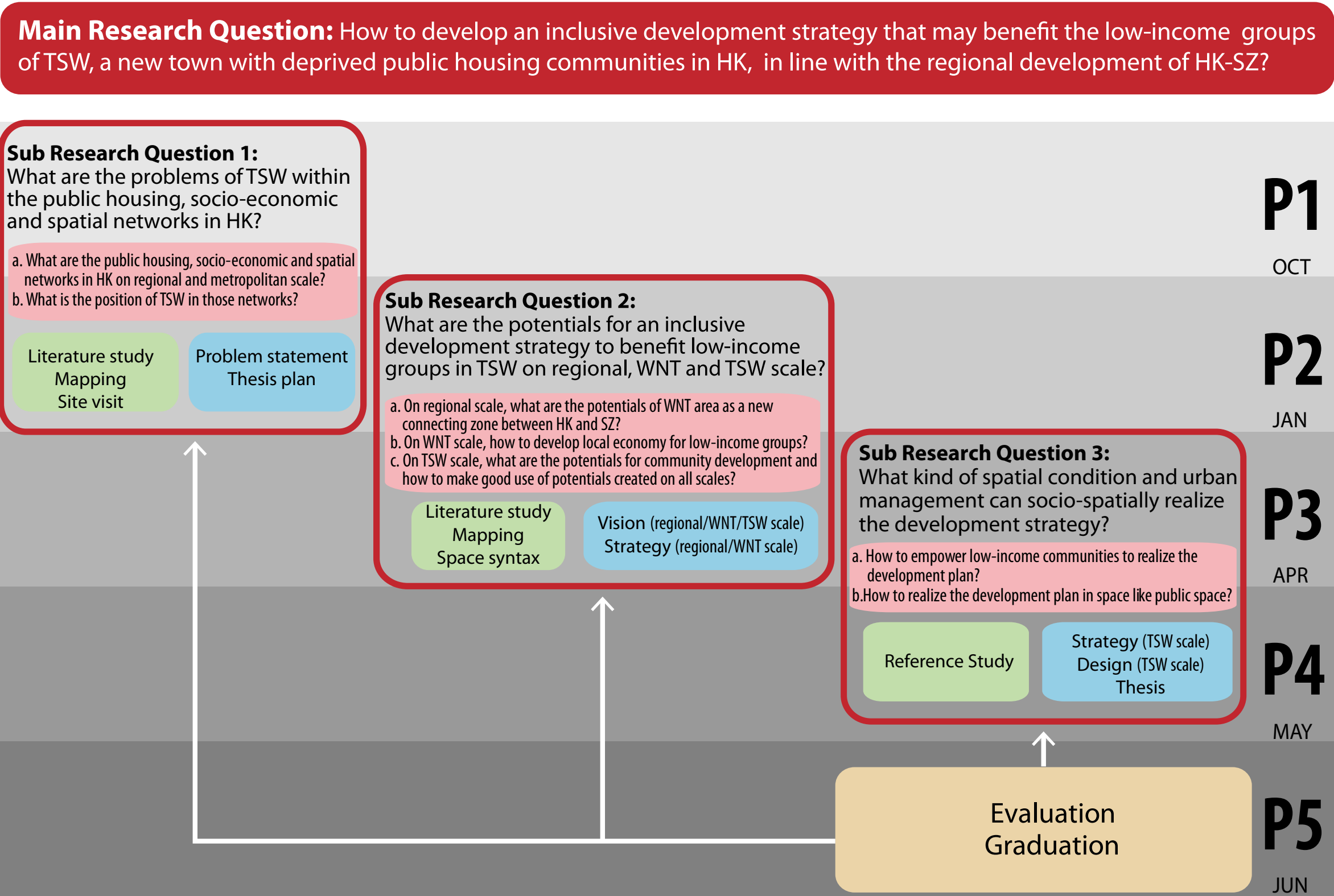


Unemployment / New migrant / Youth crime / Suicide /Homicide

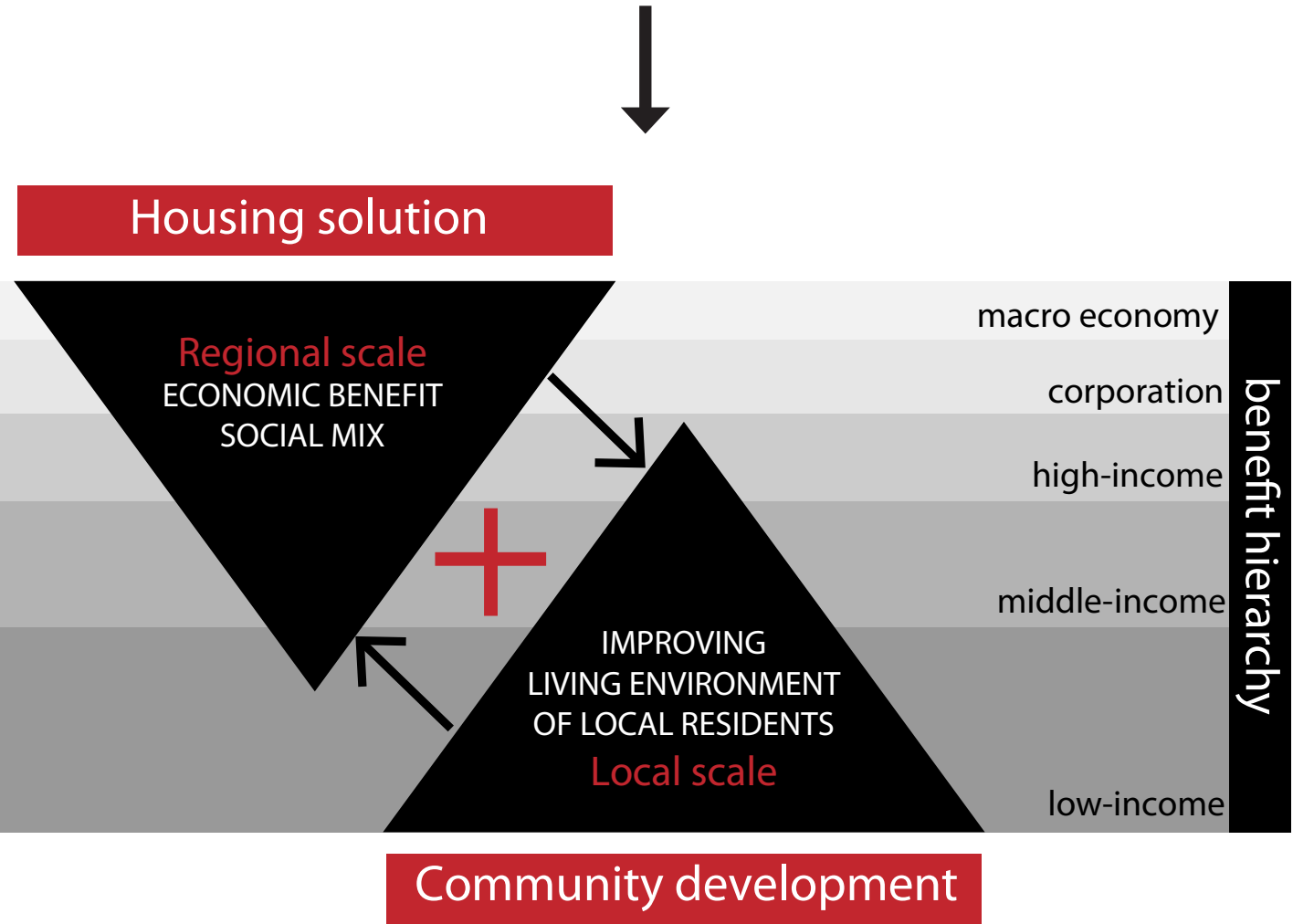
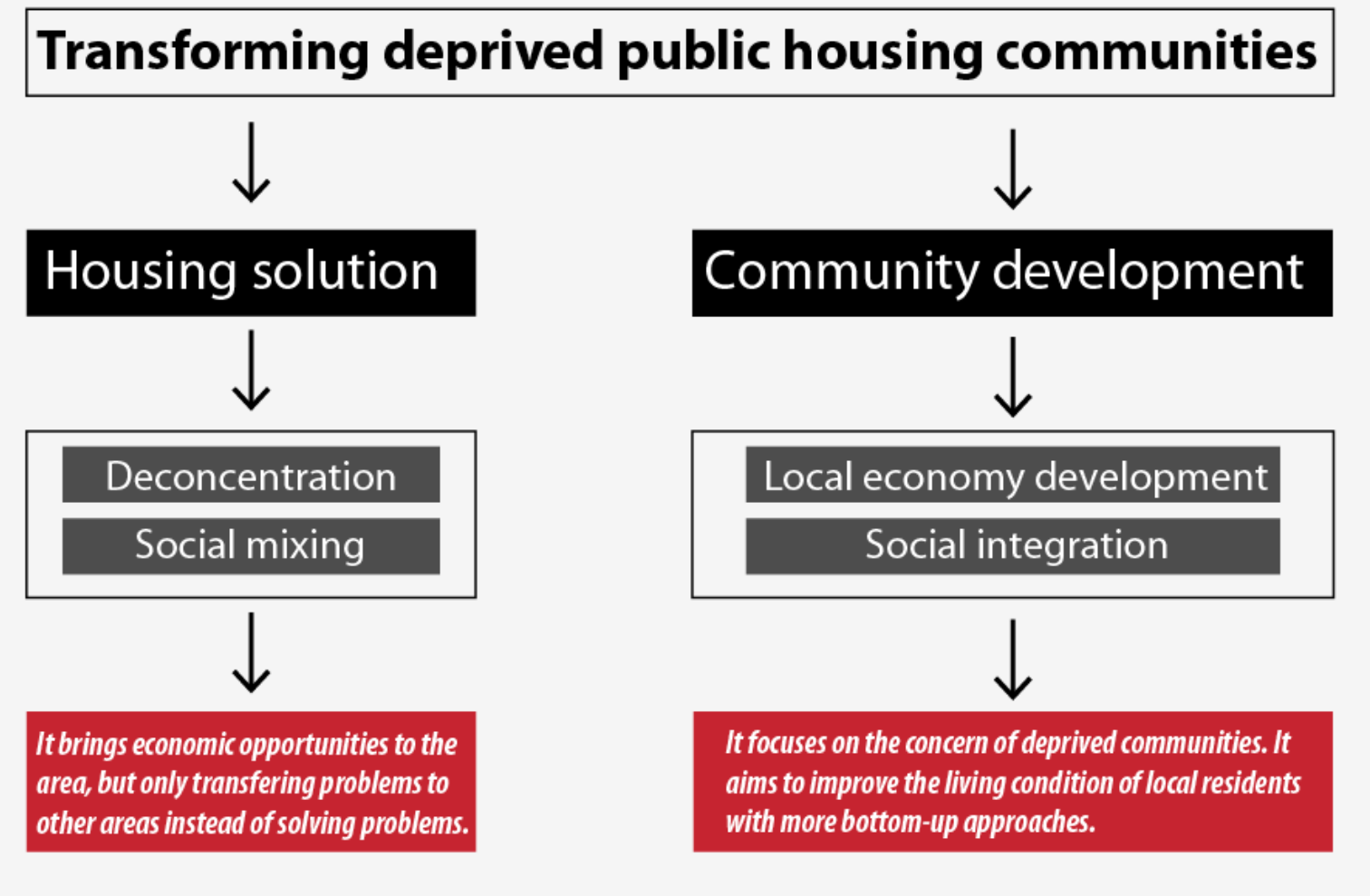
Focus of Public media (bad image in public eyes): the city of misery

Methodology - Research Question

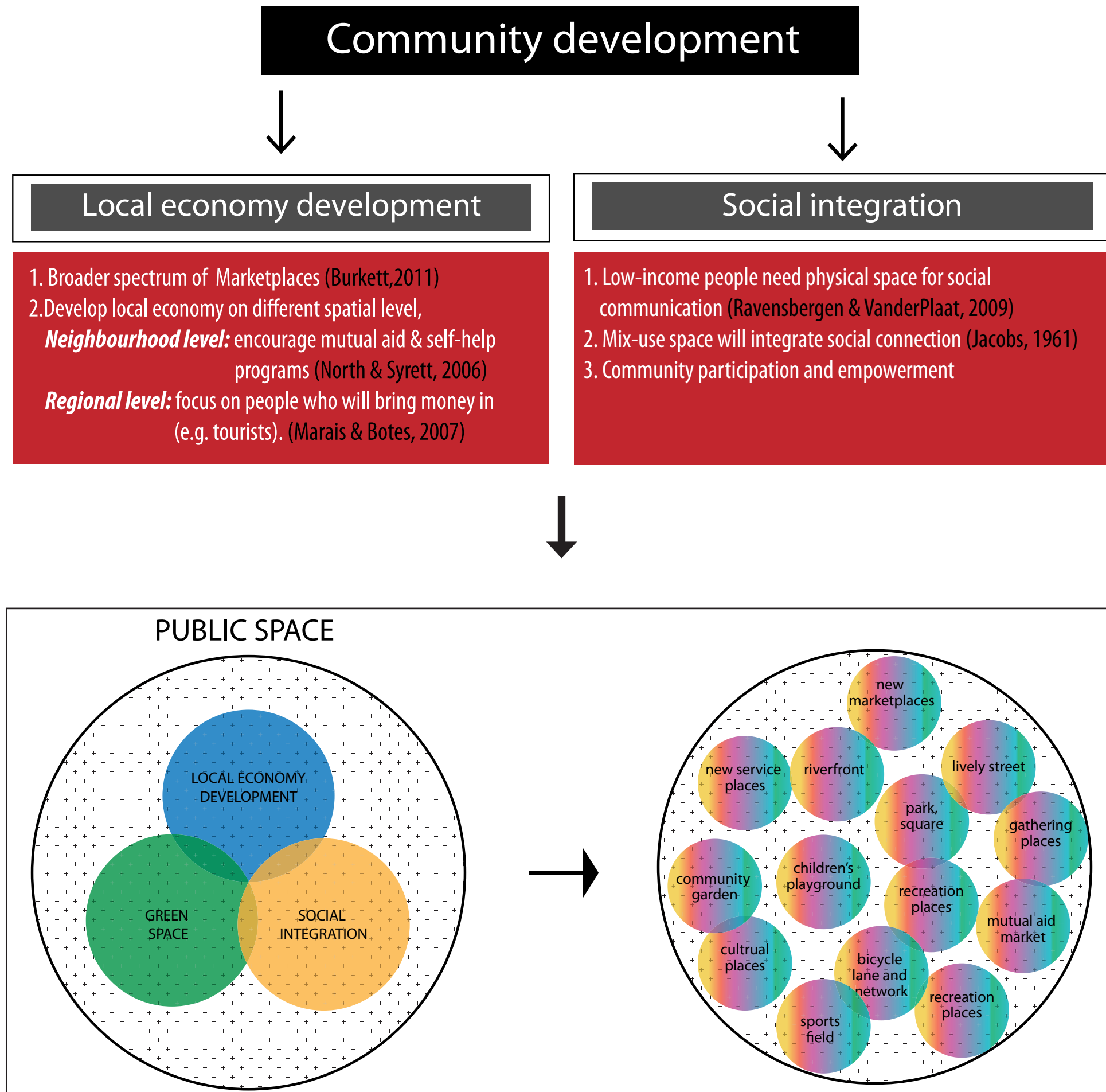
How to develop an inclusive development strategy that may benefit the low-income groups living in this public housing cluster of new town, in line with the future regional development?



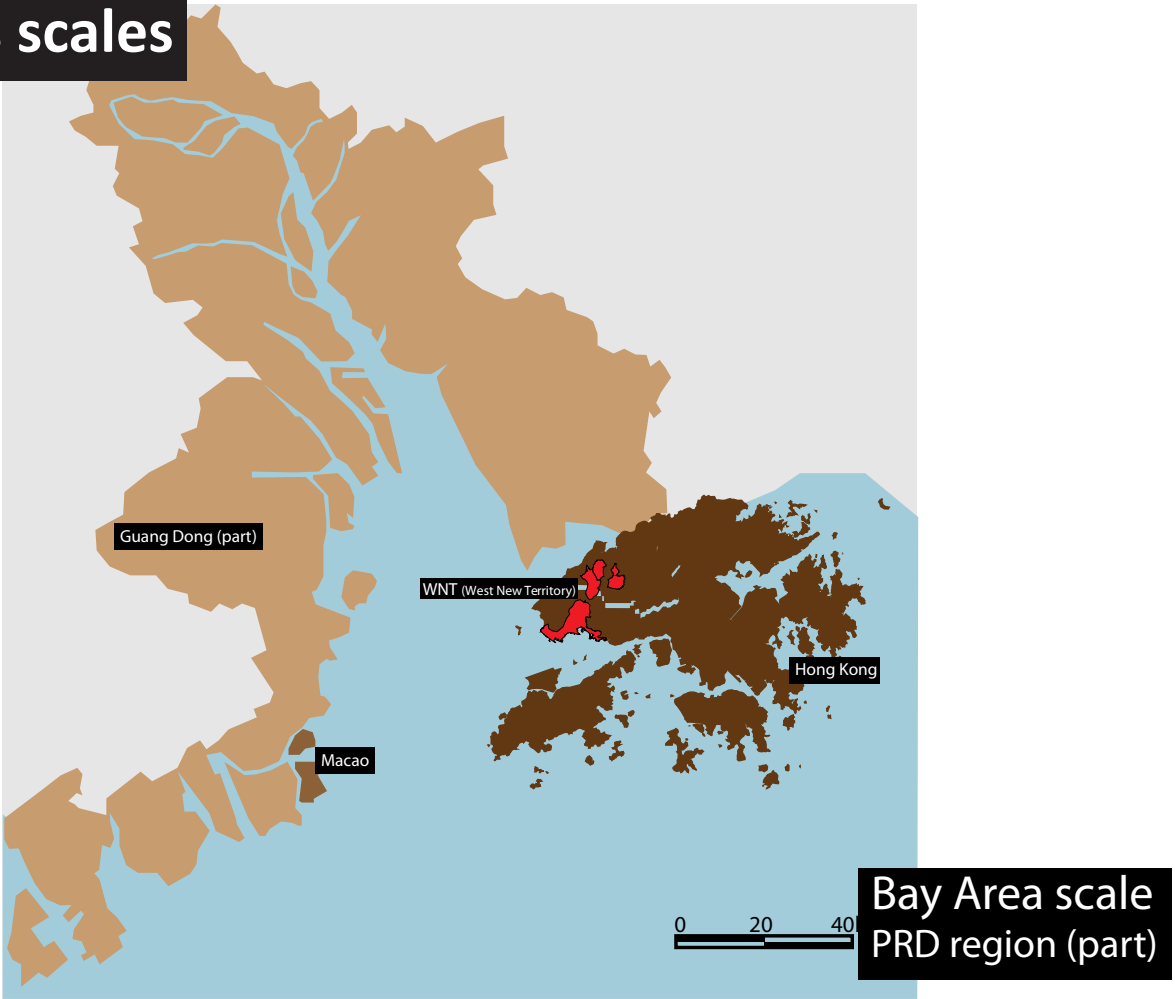
Theoretical Support



Theoretical Support

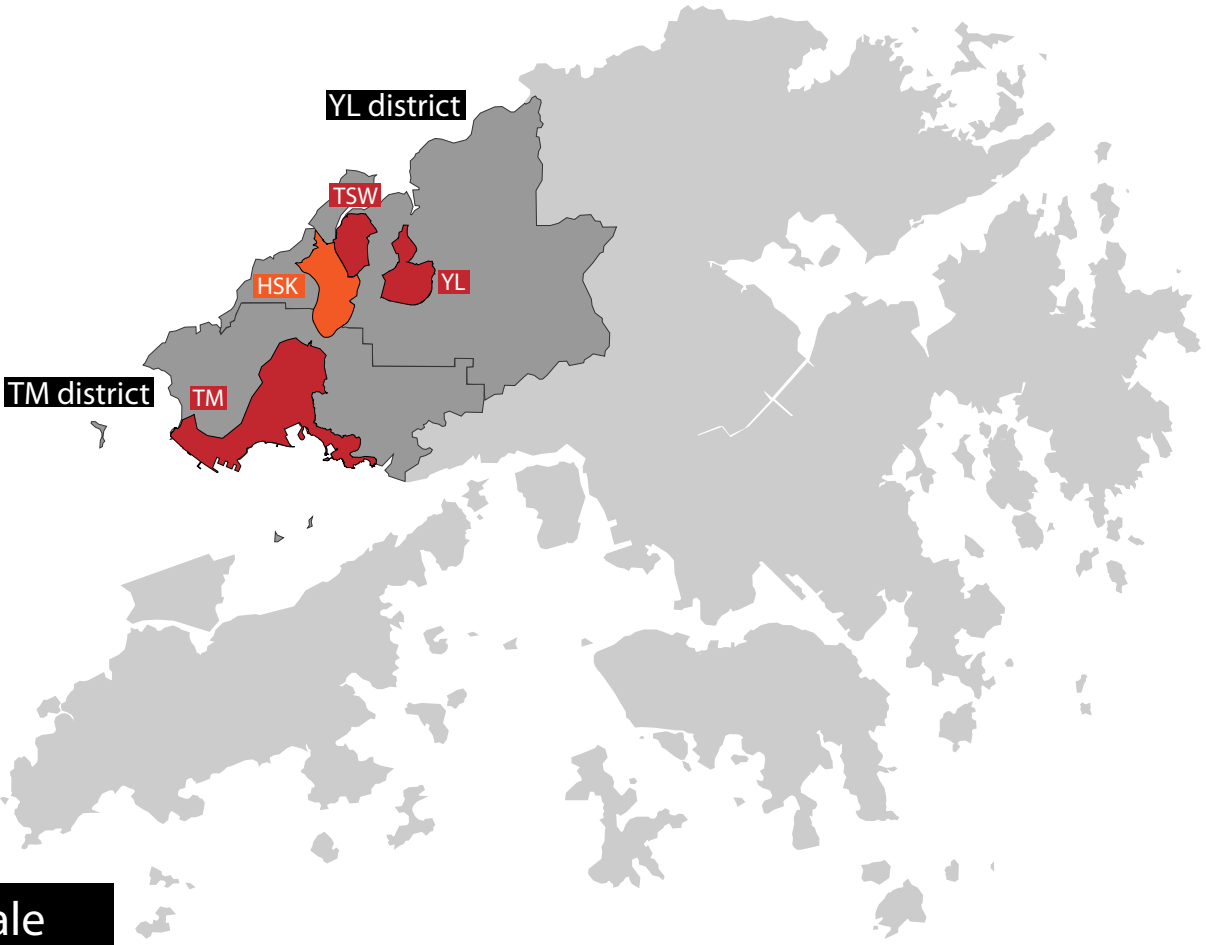
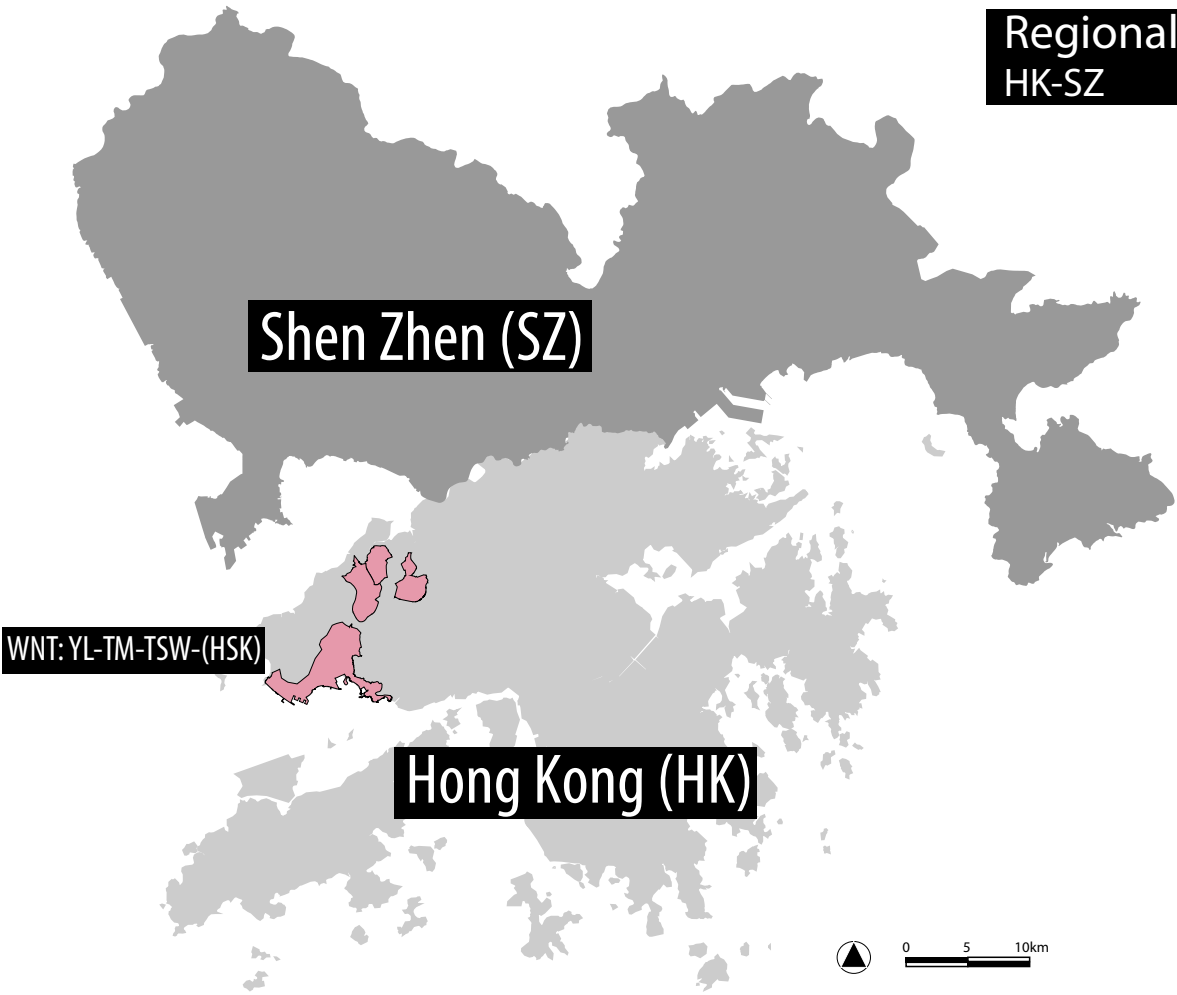


Analysis scales



Bay Area scale
PRD region (part)

Regional scale
HK-SZ



WNT scale
TM-YL-TSW-HSK

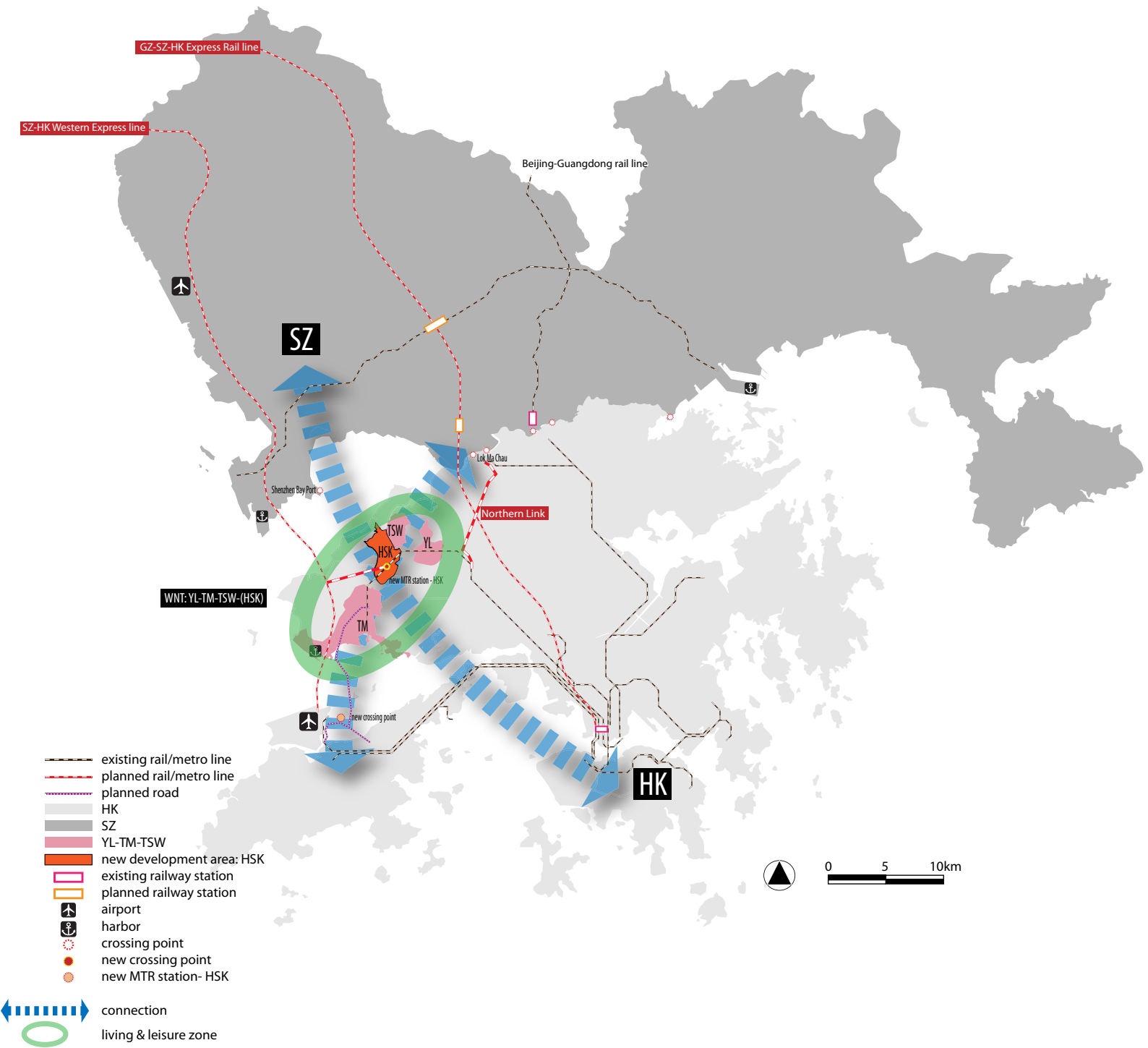
TSW scale



Analysis on Regional scale



Bay area Action plan study

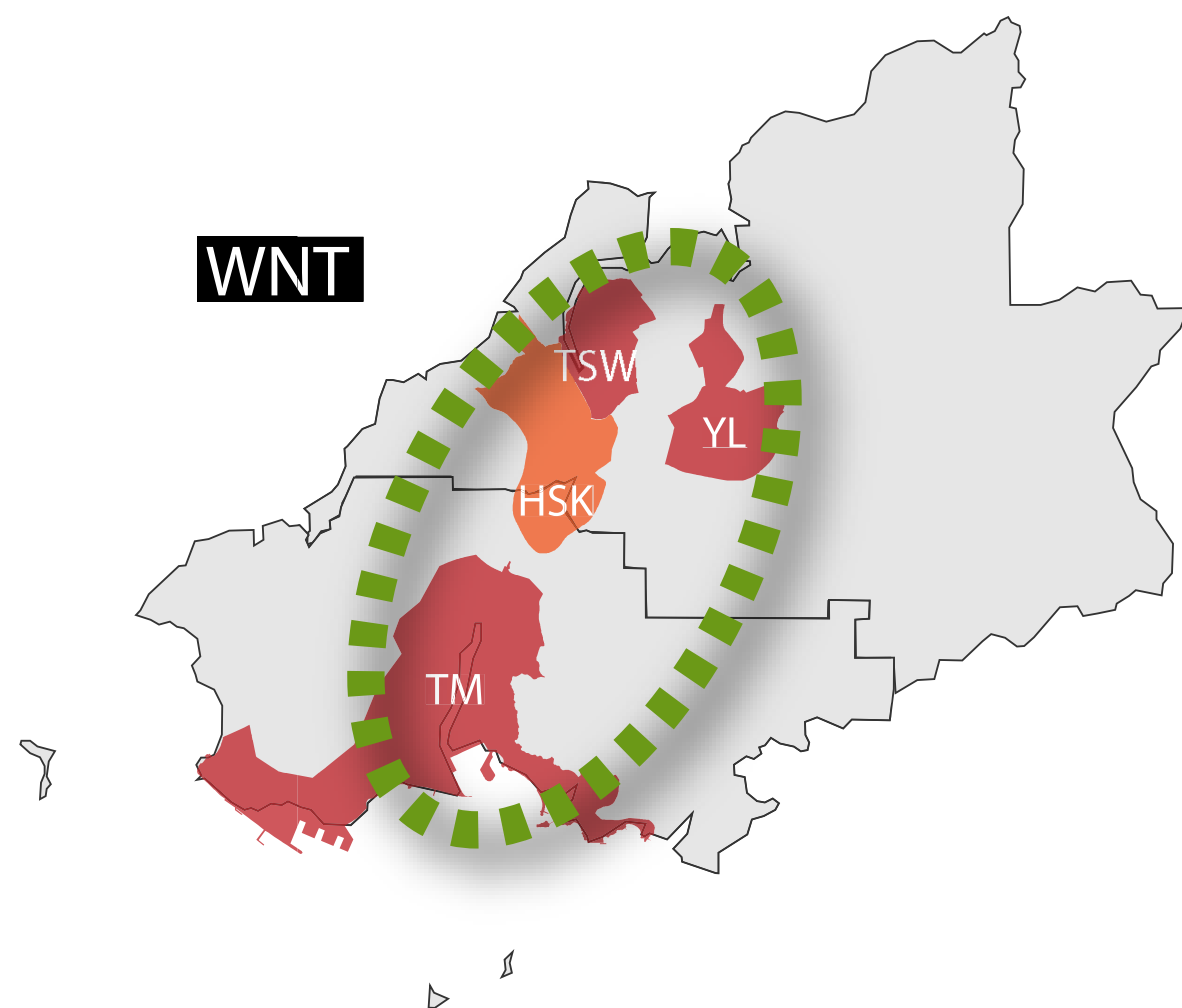


HK-SZ: new infrastructure connection & new development area of HSK

- 1). WNT area would be a new connecting zone between HK and SZ
- 2). WNT area would be a new centrality based on new development in HSK, so it will be attractive for both HK and SZ residents, especially for cross-boundary commuters;

New development benefit low-income groups???

Analysis on WNT scale



LANDSCAPE

Diverse & High quality

TRANSPORT

Convenient, Not Affordable

LOCAL SERVICE

Lack in Quantity & Quality

SOCIO-ECONOMIC CONDITION

Poor condition, need dynamics

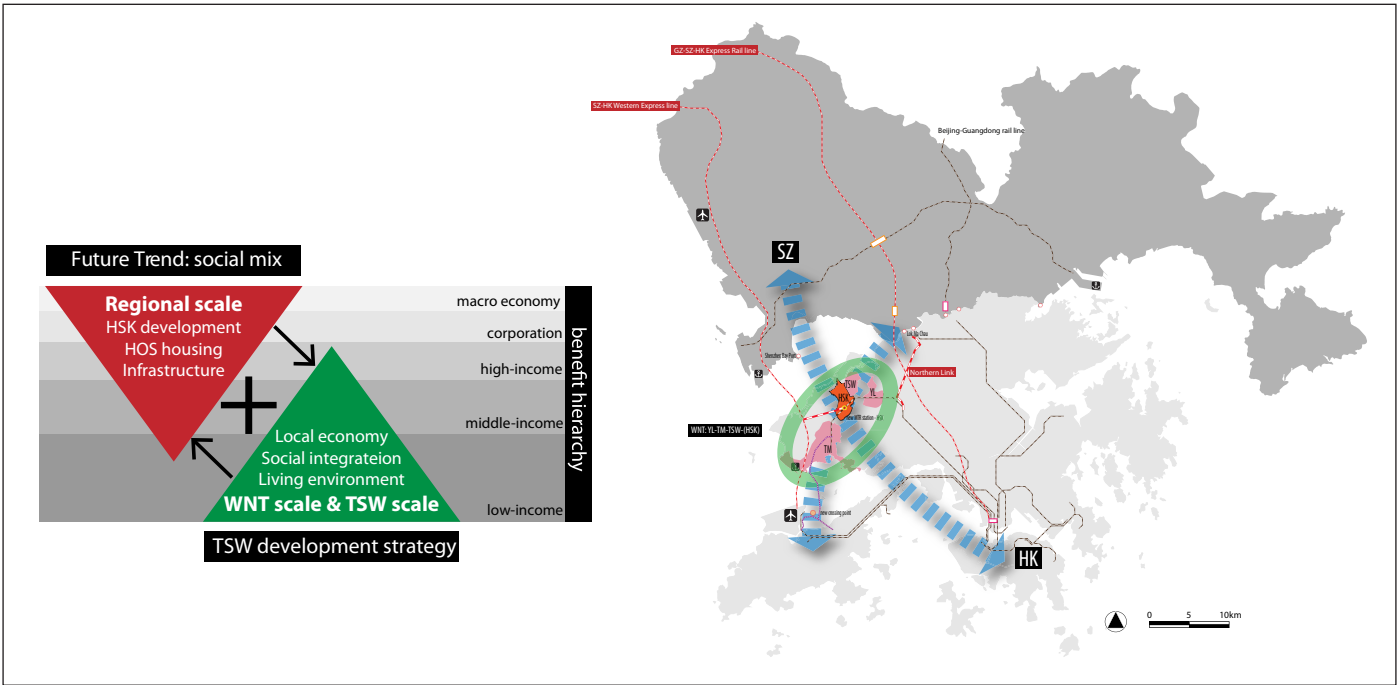
Analysis on TSW scale



Housing condition is more spacious than city centre
Closer to natural environment

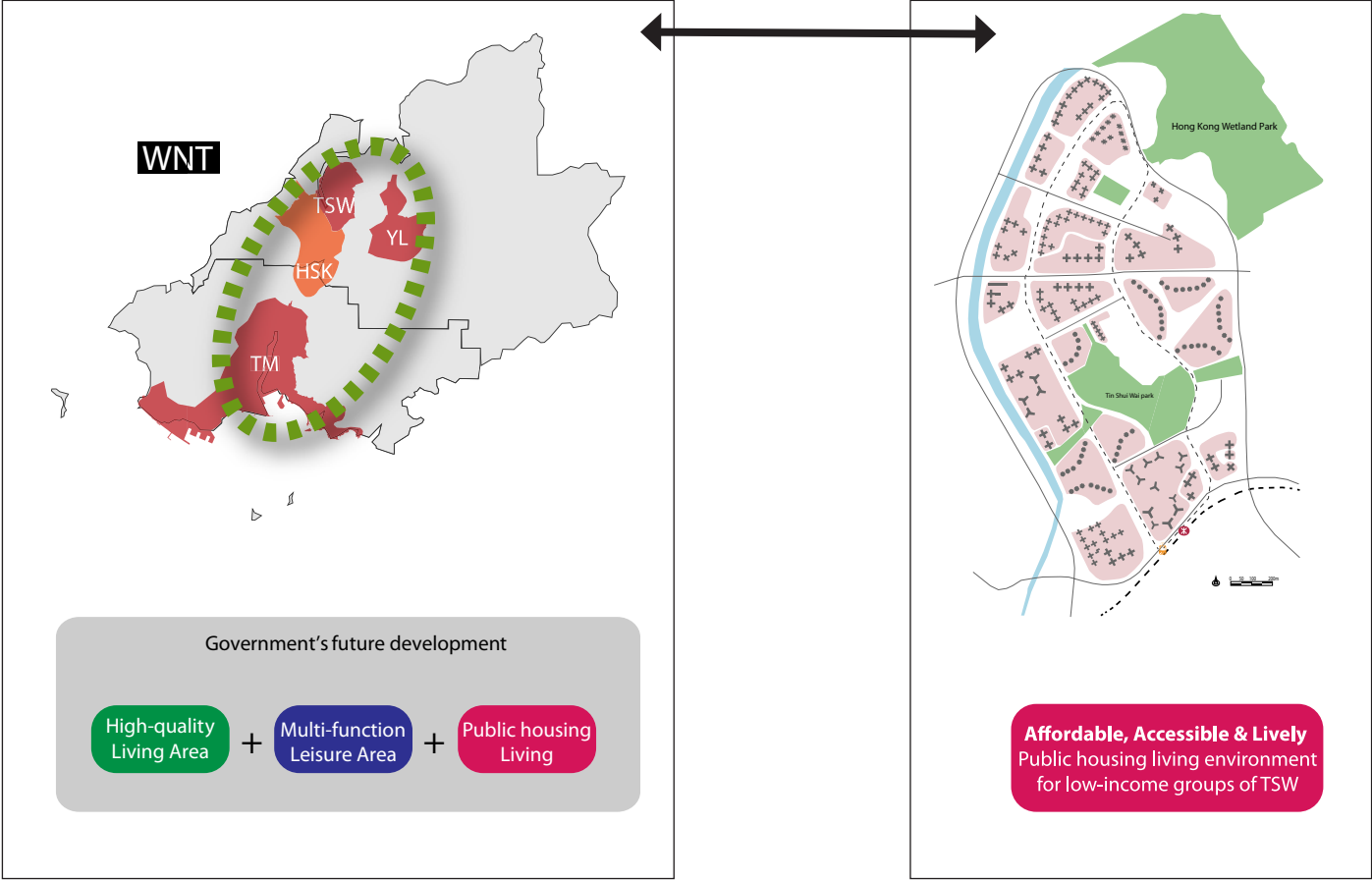
- Strong community sense, willing to help each other
- Fight for their own hospital, library, public space
- NGOs

Vision



Under the background of government’s proposal on regional scale which will bring **social mix** and new development into WNT area

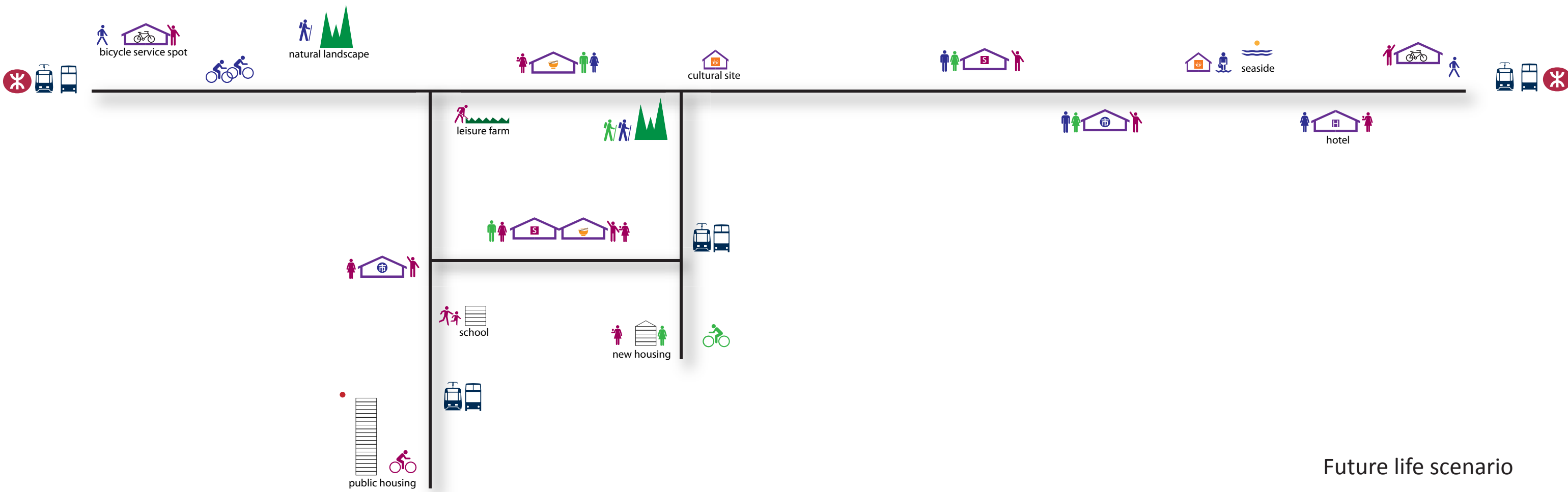
Promote urban dynamics in WNT area by more **physical and socio-economic connections among different new towns**. WNT area would have the potentialities to develop into a social-mix area with diverse development: **high-quality living area, multi-function leisure area, and public housing living area linking the two cities of HK and SZ**. In return, government’s plan will benefit from a better image of WNT area.



TSW - the Besieged City - could be opened outward with closer connections to other new towns and more development opportunities in WNT area.

Strategic interventions within TSW scale could open the closed-in housing estates and transform the public housing cluster into **affordable, accessible and lively living environment** for existing low-income groups in TSW.

Vision



-  tourist
-  local employment
-  local residents
-  new residents

Future life scenario

Strategy Approach

Experience & Inspirations from Bijlmermeer

Spatial interventions:

- spatial hierarchy & differentiation
- mix-function & human scale public space
- social safety > traffic safety, clarify road system
- make good use of existing space (garage transformation)

Socio-economic measures:

- encourage small business activities
- short term projects for job creation and training
- long term structural projects for youth, economic development, multicultural cohesion, residents empowerment

Urban management:

- create safe living environment and decrease blind spots
- resident participation to make good use of public space

TSW development strategy: Internal & Inclusive approach

Spatial interventions

- Create spatial hierarchy: Green Route network
- priority to pedestrian & bicycle
- mix-function public space on human scale
- transformation of underused space

Socio-economic measures

- Encourage small business activities
- diverse marketplaces
- unique local business (bicycle, catering, leisure farm...)

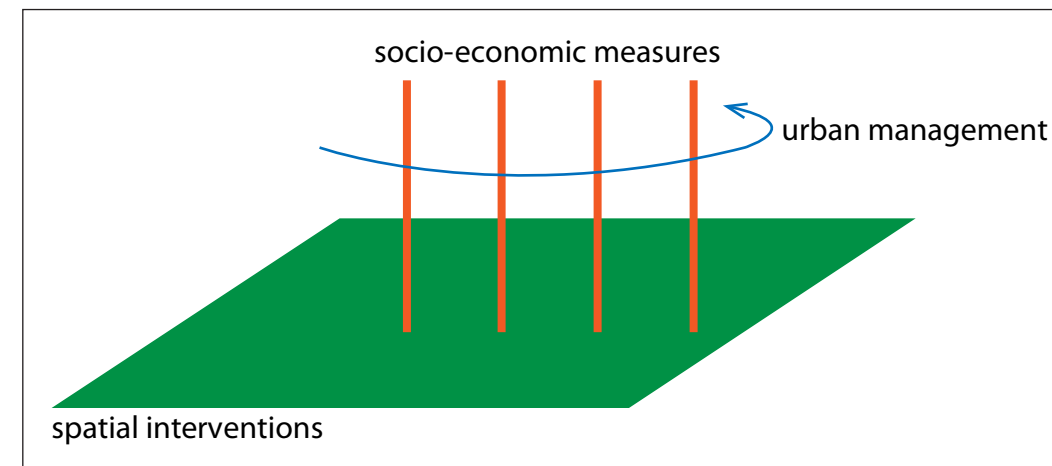
- Short term job creation programs
- building work for unemployed
- adult's training
- contractors with new development to provide certain amount of jobs for local residents

- Long term structural programs
- residents empowerment
- youth education & development
- multicultural cohesion

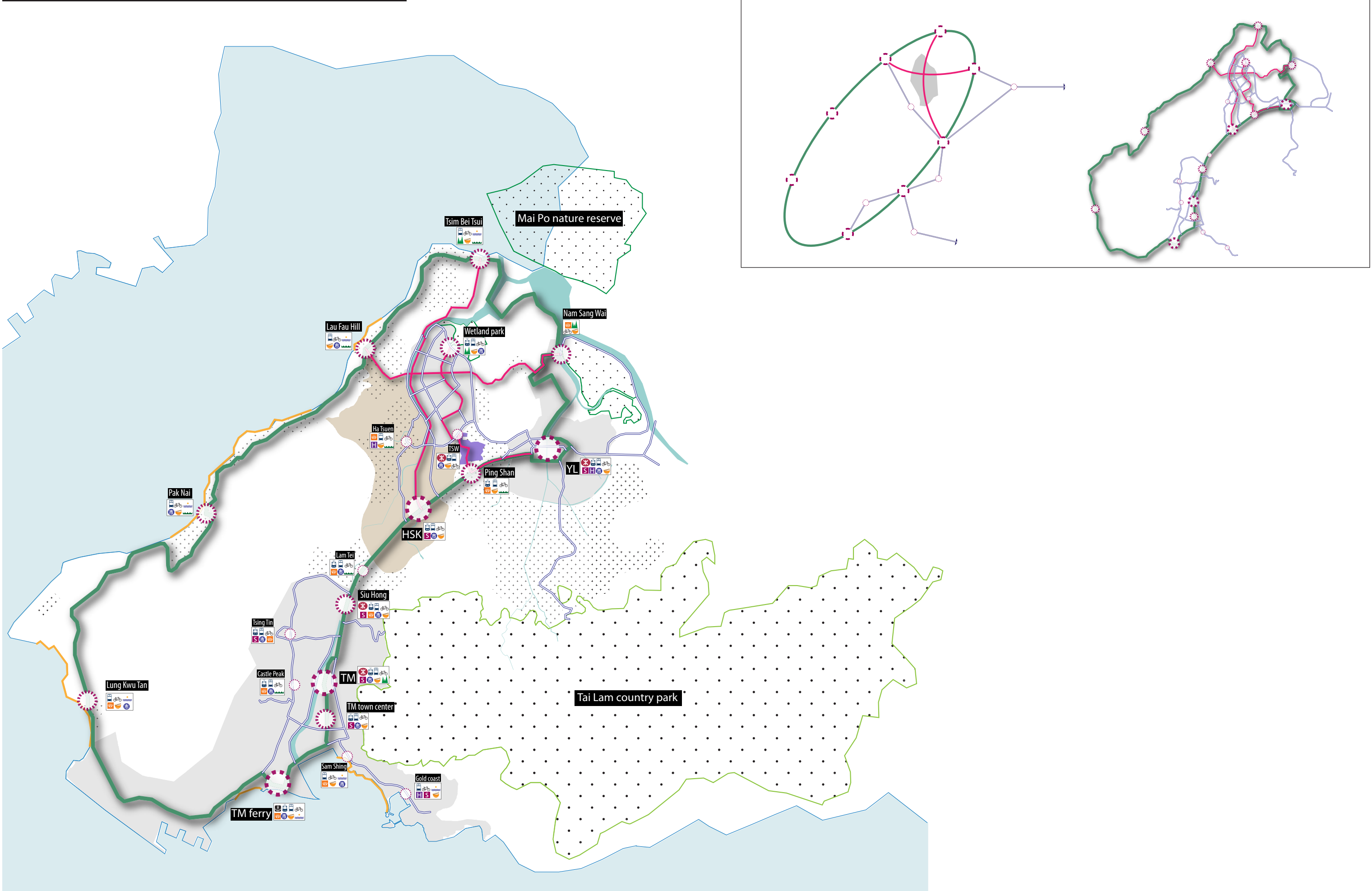
Urban management

- Create safe living environment
- decrease blind spots
- lively space with eyes on the street
- safe playgrounds for children

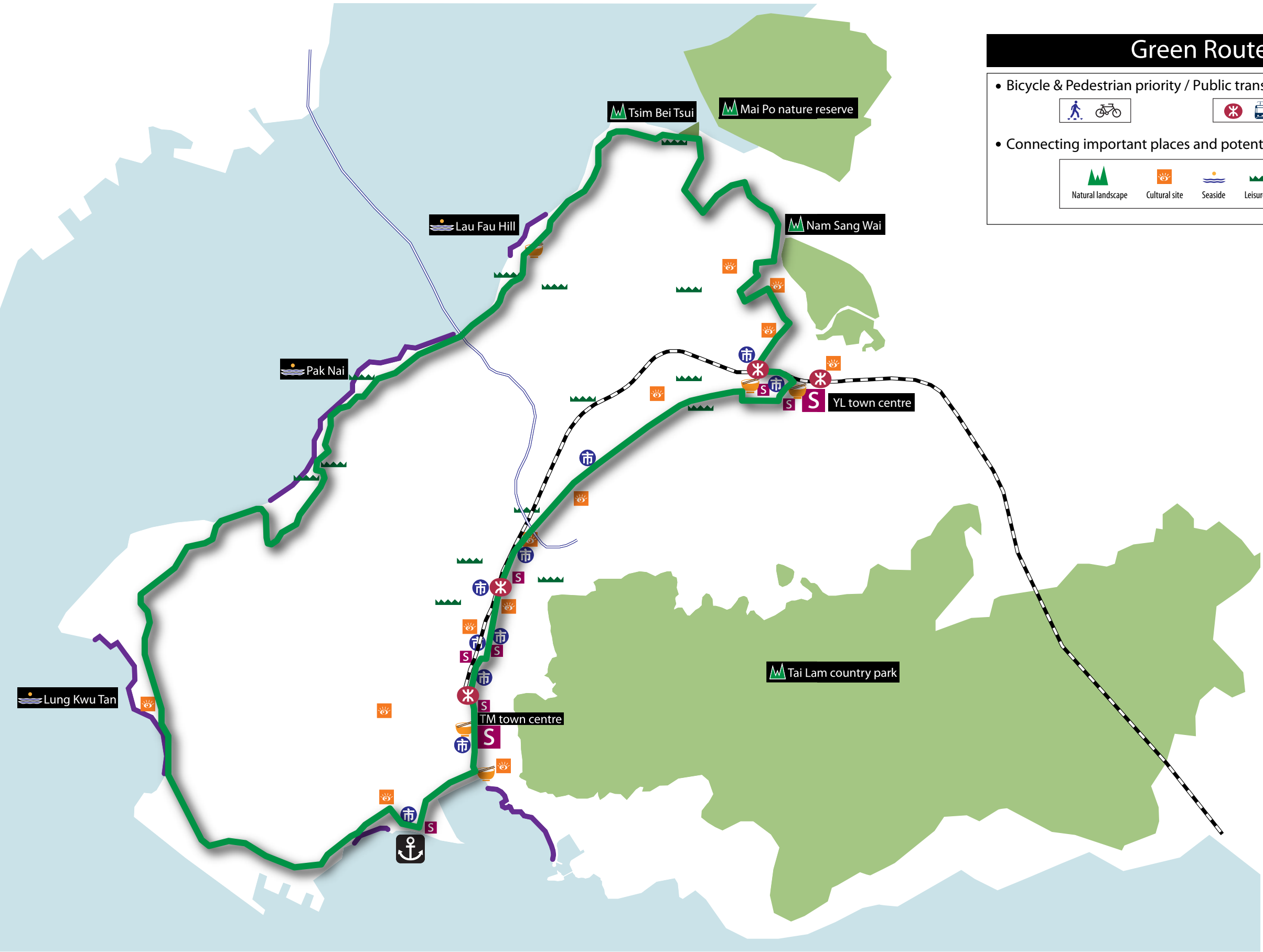
- Resident participation for urban management
- optimal combination of 'space, time & people'
- collaboration among government, NGO, self-organization, and other groups & individuals



Strategy - Green Route Network



Strategy - Green Route Network



Green Route Circle

- Bicycle & Pedestrian priority / Public transport connection / Slow drive tour

Icons: Pedestrian, Bicycle, Public transport, Slow drive tour

- Connecting important places and potential development areas together

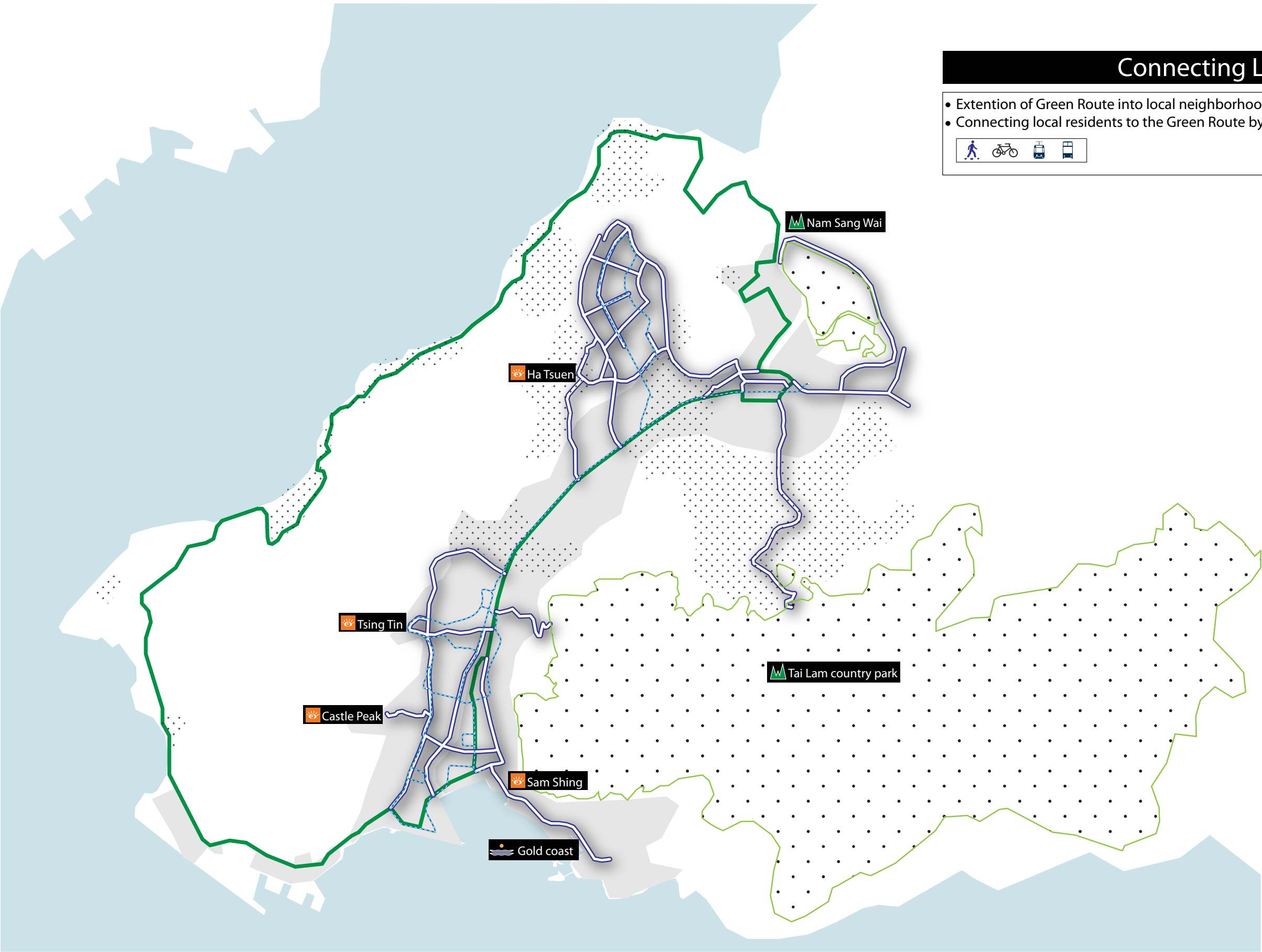
Icons: Natural landscape, Cultural site, Seaside, Leisure farm, Shopping mall, Market, Food stalls

Legend:

- Sea
- Nature landscape
- Seaside
- MTR line
- Intercity Highway
- Green Route Circle

Scale: 0 606m

Strategy - Green Route Network



Connecting Line

- Extention of Green Route into local neighborhoods & other important places
- Connecting local residents to the Green Route by bicycle path and public transport

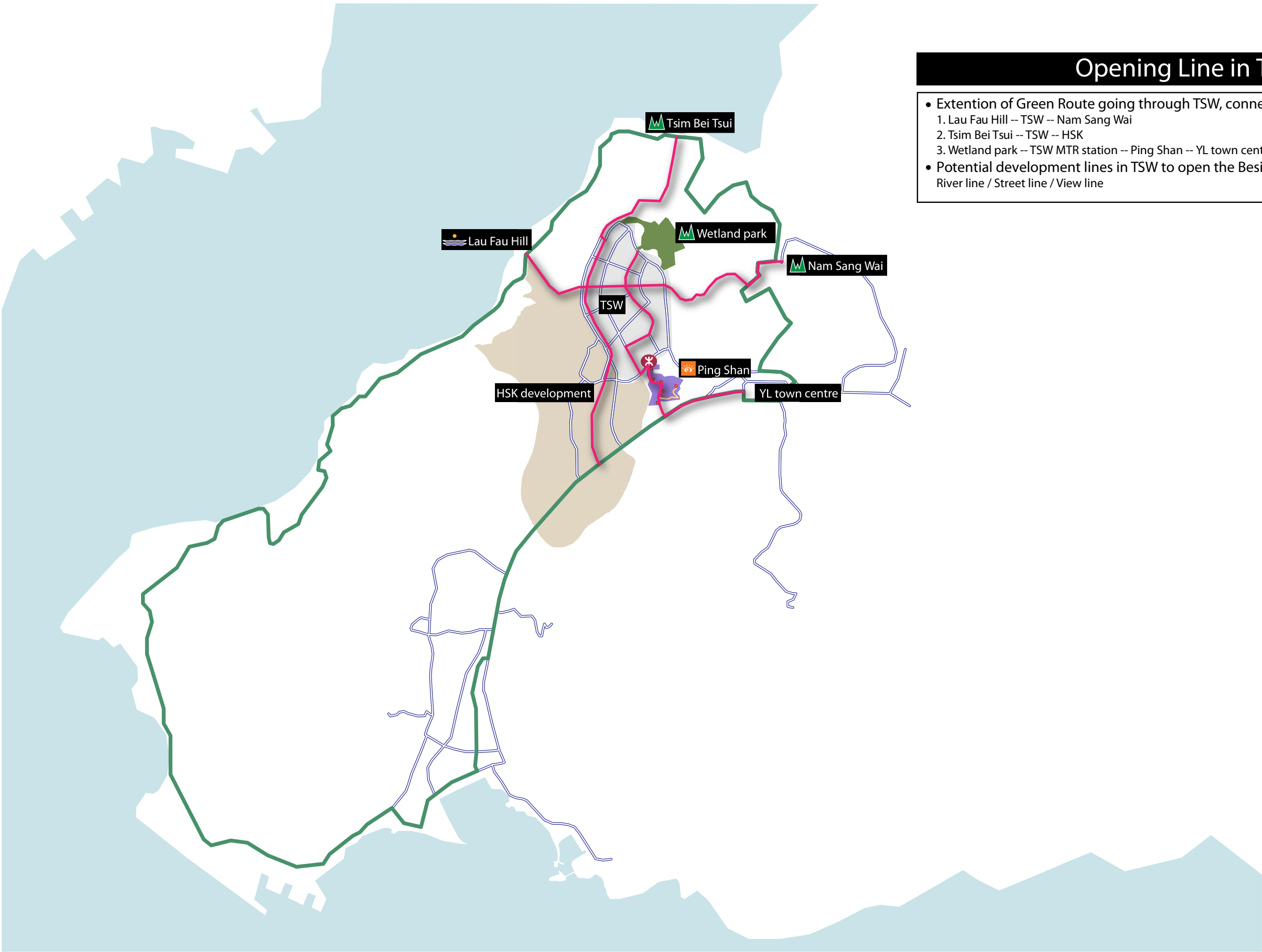


- Sea
- Urban area
- Nature Landscape
- Village
- Light Rail line

- Green Route Circle
- Connecting Line

0 606m

Strategy - Green Route Network



Opening Line in TSW

- Extention of Green Route going through TSW, connecting crucial places around TSW
 1. Lau Fau Hill -- TSW -- Nam Sang Wai
 2. Tsim Bei Tsui -- TSW -- HSK
 3. Wetland park -- TSW MTR station -- Ping Shan -- YL town centre
- Potential development lines in TSW to open the Besiege City
 - River line / Street line / View line

Sea

TSW area

HSK development area

Wetland park

Ping Shan Village

Green Route Circle

Connecting Line

Opening Line






0

606m

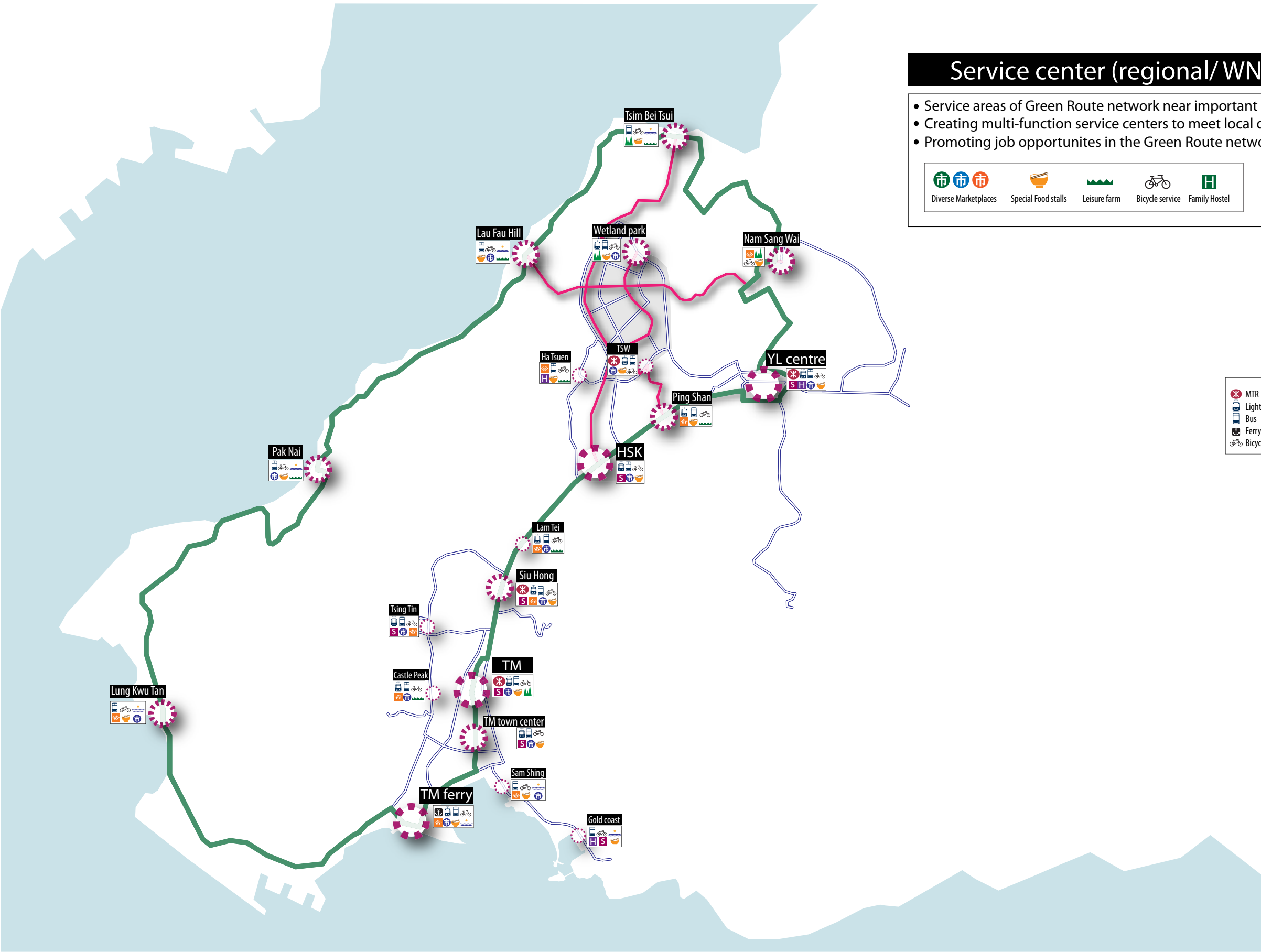
Strategy - Green Route Network



Service center (regional/ WNT/ local level)

- Service areas of Green Route network near important places & current local service
- Creating multi-function service centers to meet local demand & potential visitors
- Promoting job opportunities in the Green Route network for local residents




    

Diverse MarketplacesSpecial Food stallsLeisure farmBicycle serviceFamily Hostel




SeaTSW area

Green Route CircleConnecting LineOpening Line



Service centre

MTRLight railBusFerry

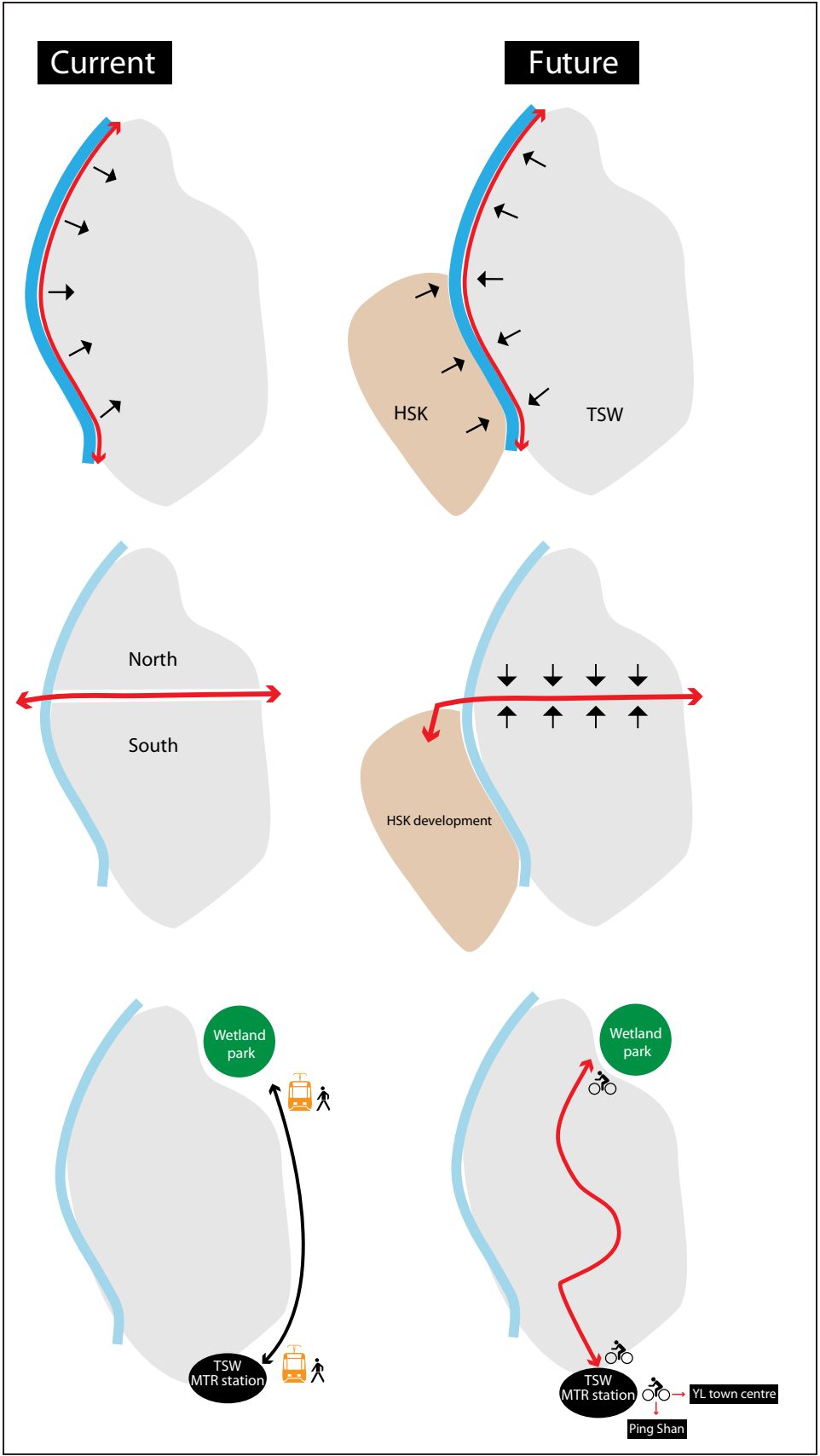
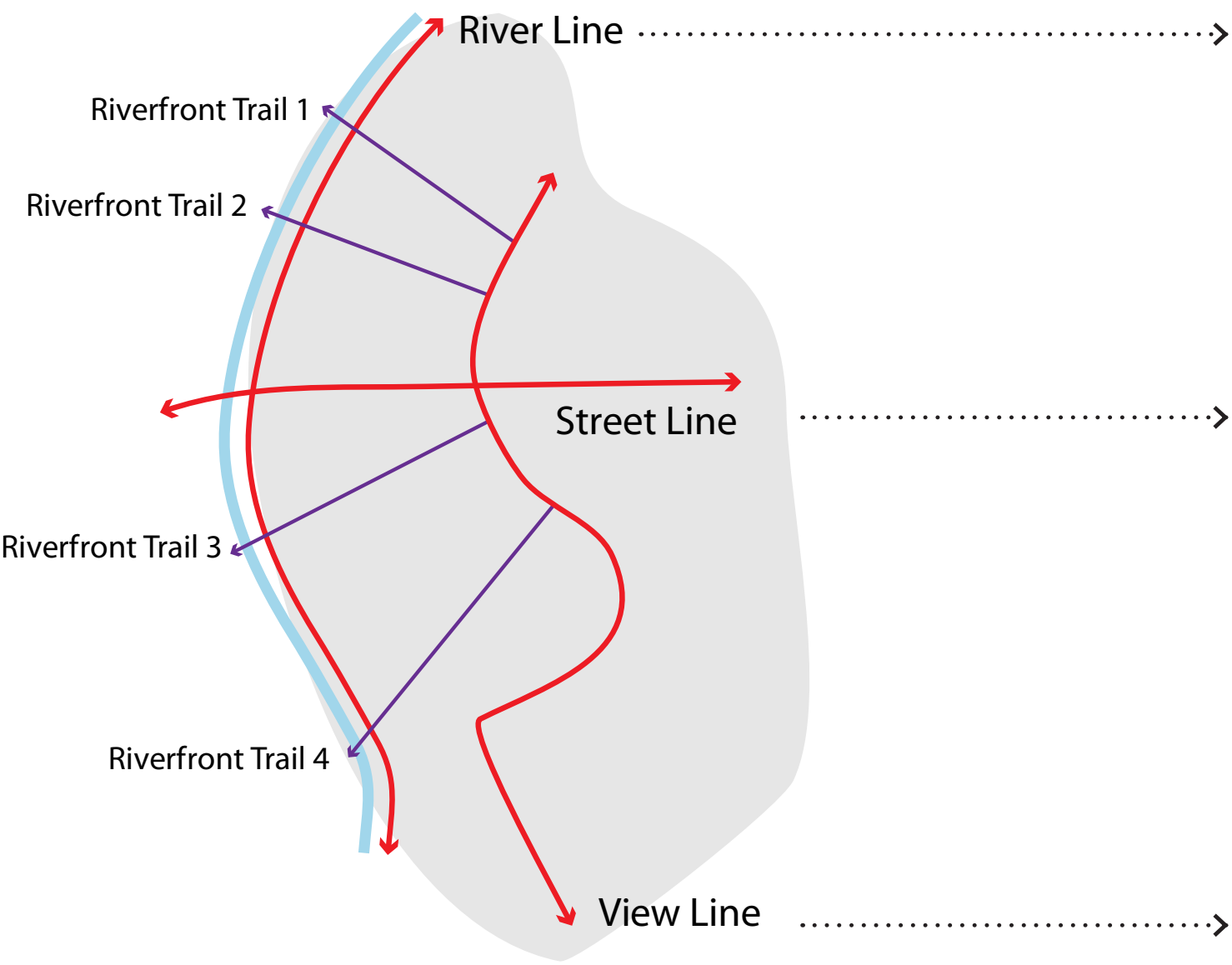
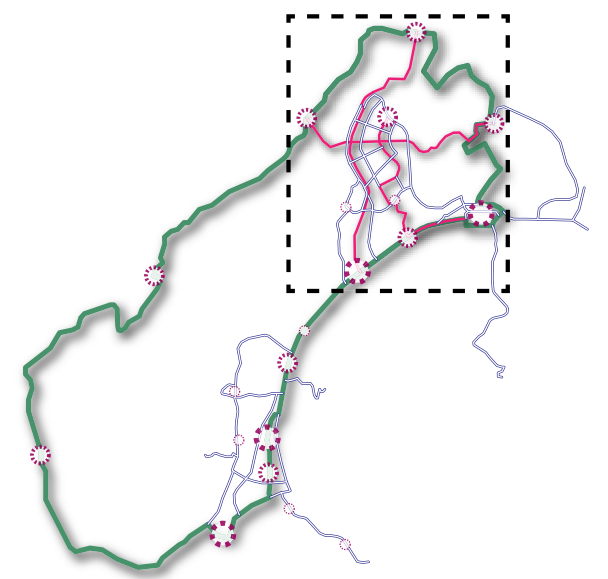
Natural landscapeCultural siteSeasideLeisure farm

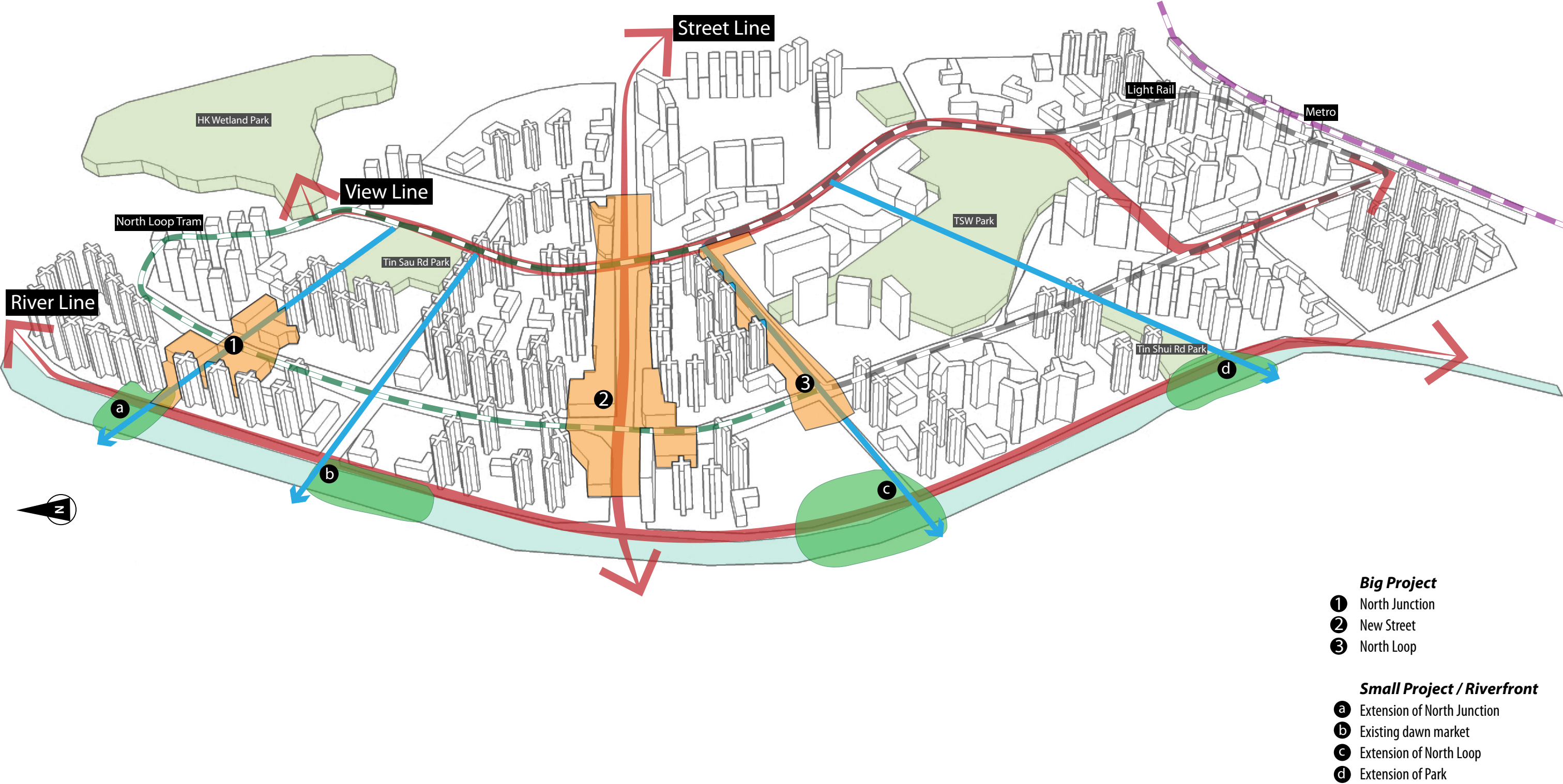
Shopping mallMarketFood stallsHotel

0 606m

Strategic Lines in TSW

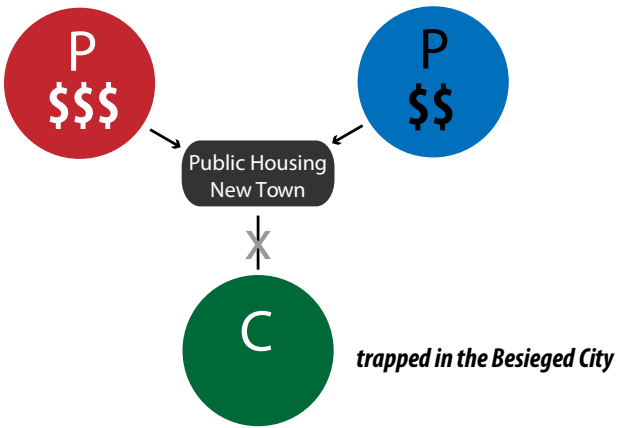


Strategic Plan for TSW

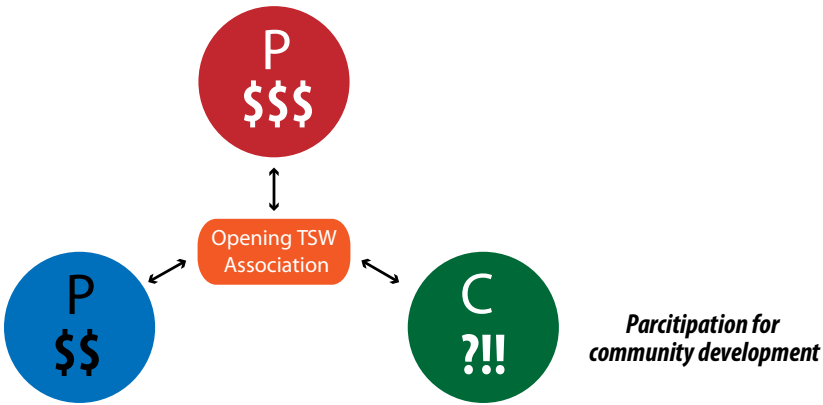


Strategy - Stakeholders

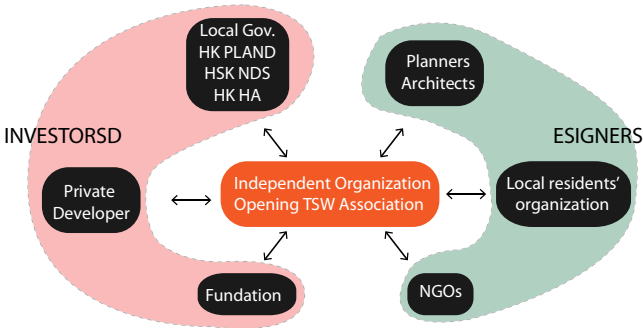
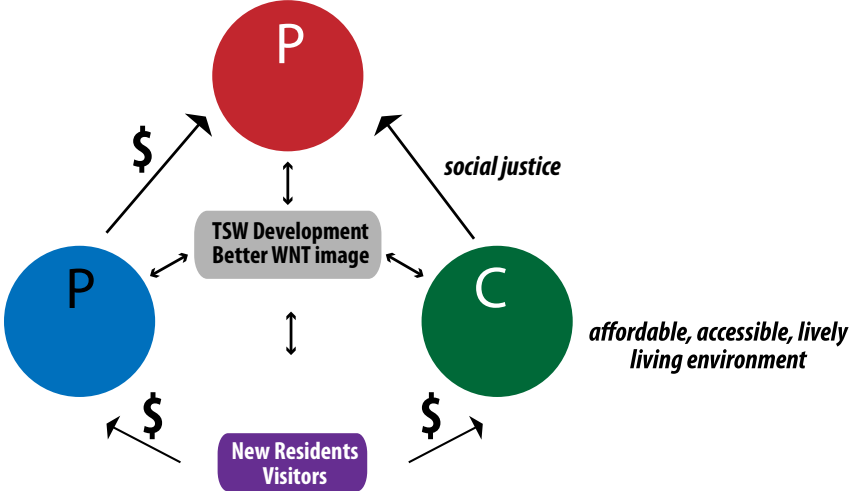
NOW



PAY



GAIN



Design - Stakeholders

Stakeholders

Infrastructure

- Public: Department of Planning
Transportation
- Private: MTR
Developer of HSK
Other developers
- Community Participation:
Design workshops

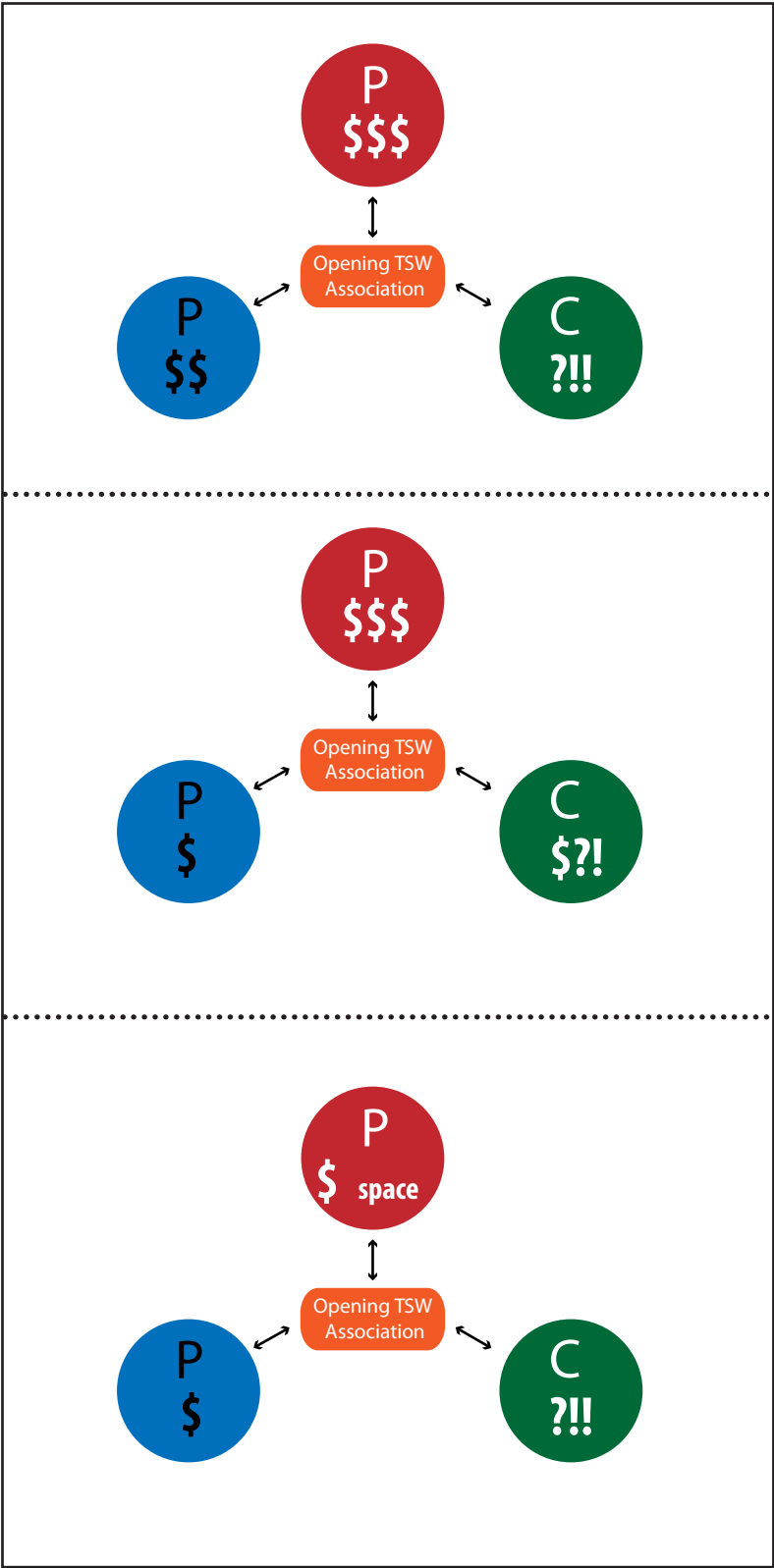
Building

- Public: Housing Authority
Foundation
- Private: Corporation (LINK)
Local businessman
- Community Organization
NGO
Residents: New businessman
Consumer

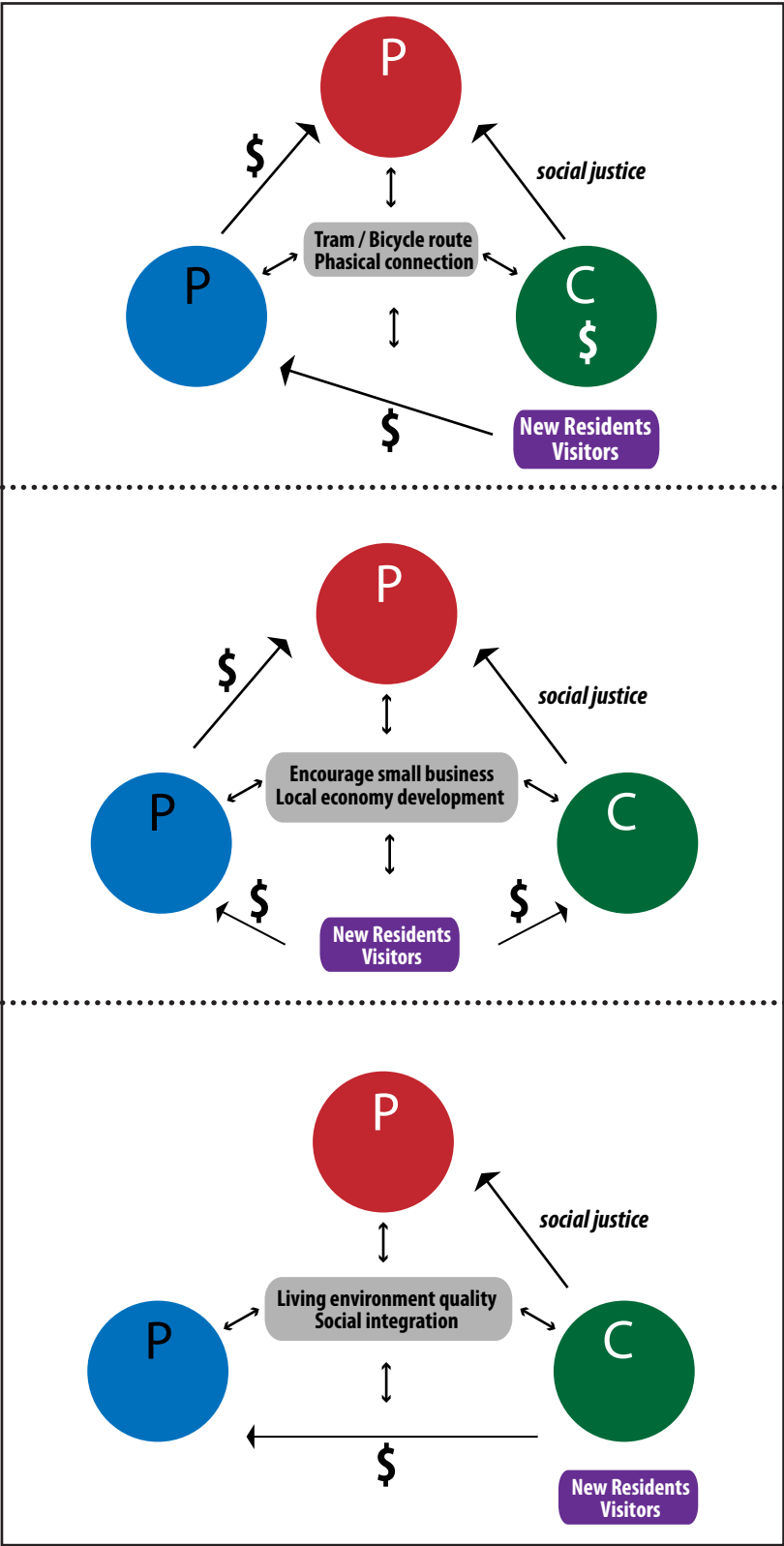
Public Space

- Public: Housing Authority
Foundation
- Private: Local farmer
Vendor
- Community Participation:
Construction & Management

PAY



GAIN

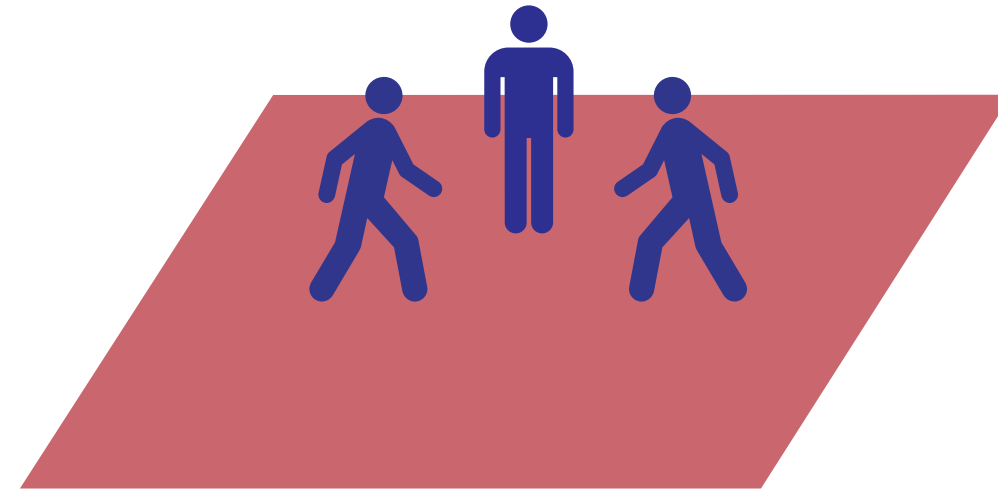


Free Economy of Common Interests



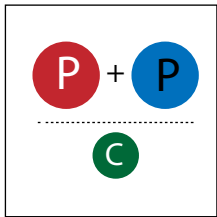
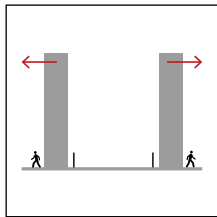
In the framework of Free Economy of Common Interests
Provide spatial opportunities to low-income groups,
A place where they can work hard for a better living.

Planning, design, construction & management



In the process of planning, design, construction & management
Provide participation opportunities to local residents.
A platform for democratic society and social justice.

Design - North Junction



shopping centre



bus terminal



lively ground level shops



empty ground



road to riverfront

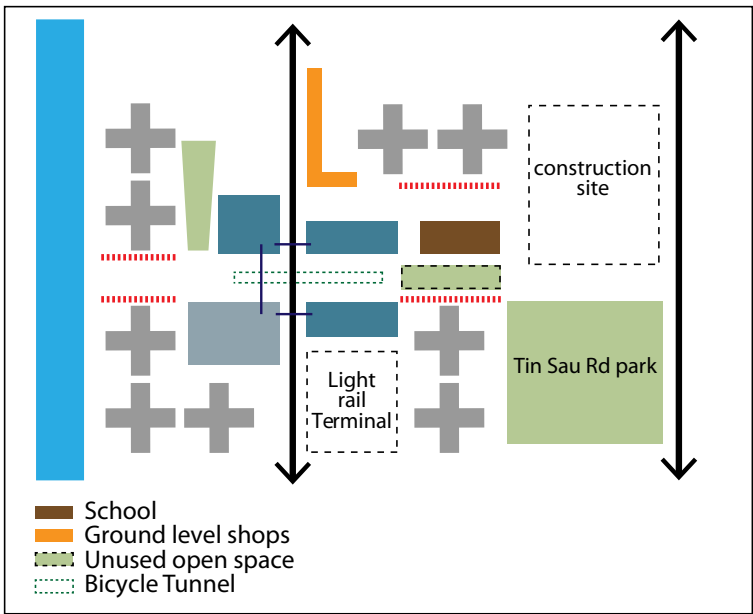


garden inside housing estate

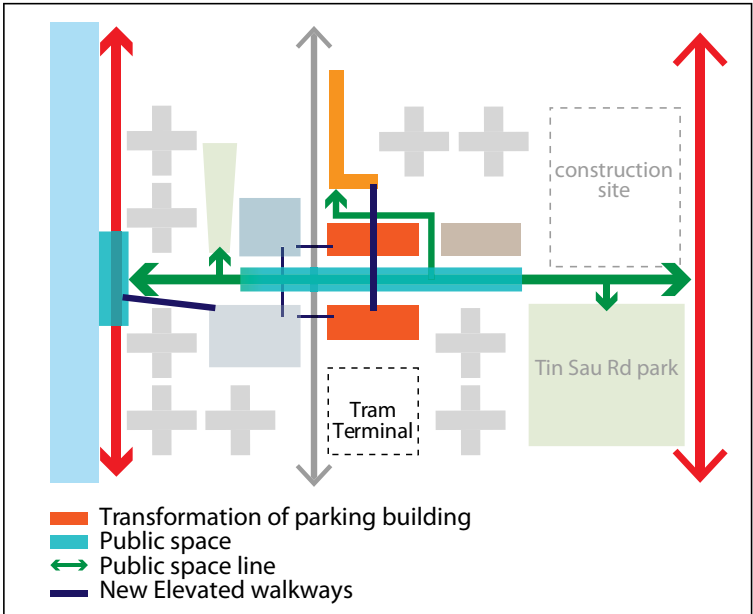


Tin Sau Park

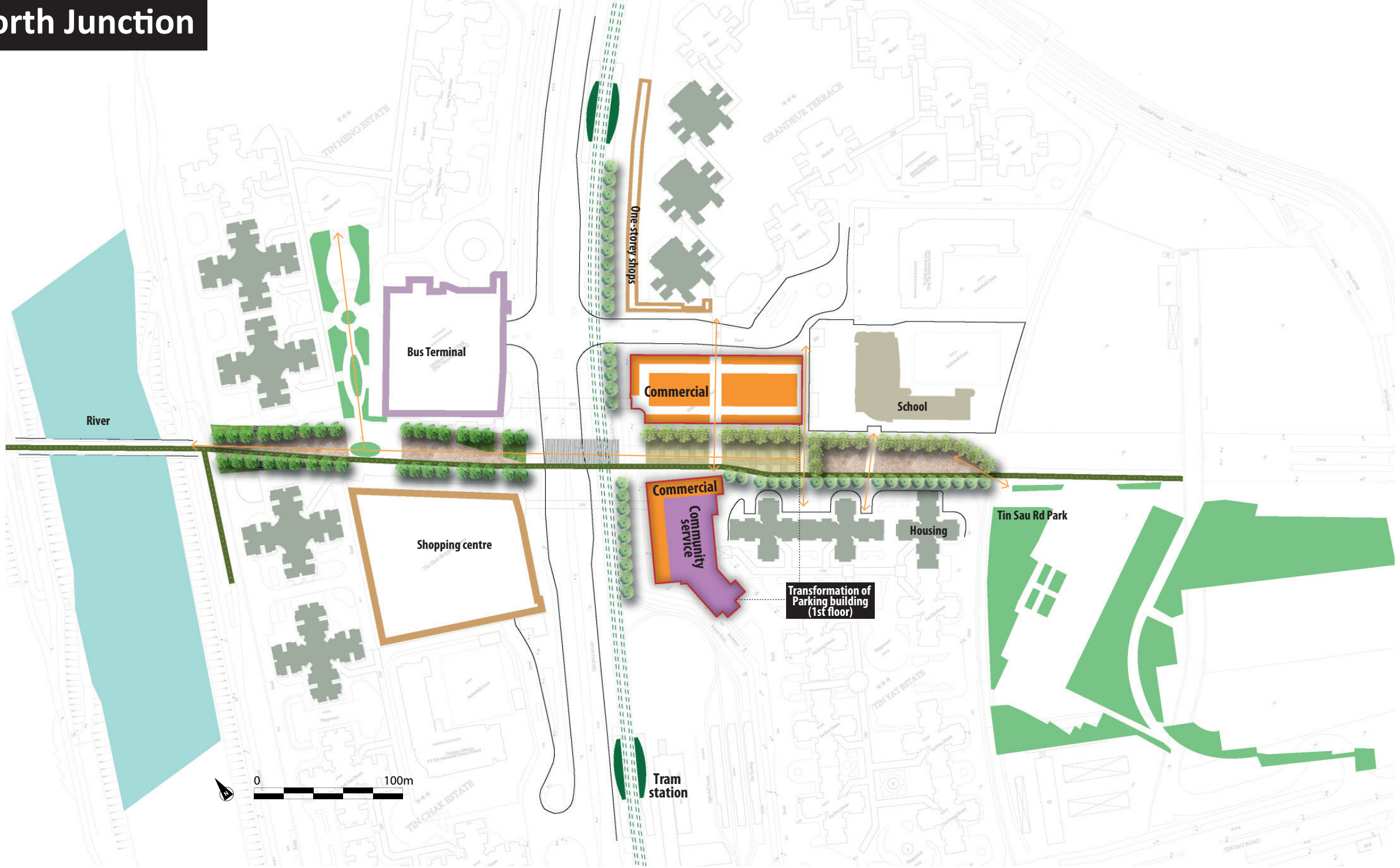
CURRENT



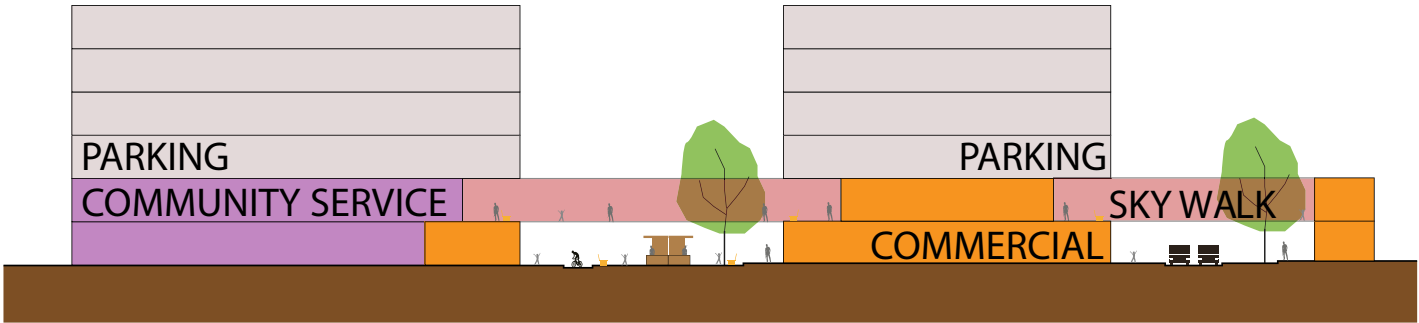
FUTURE



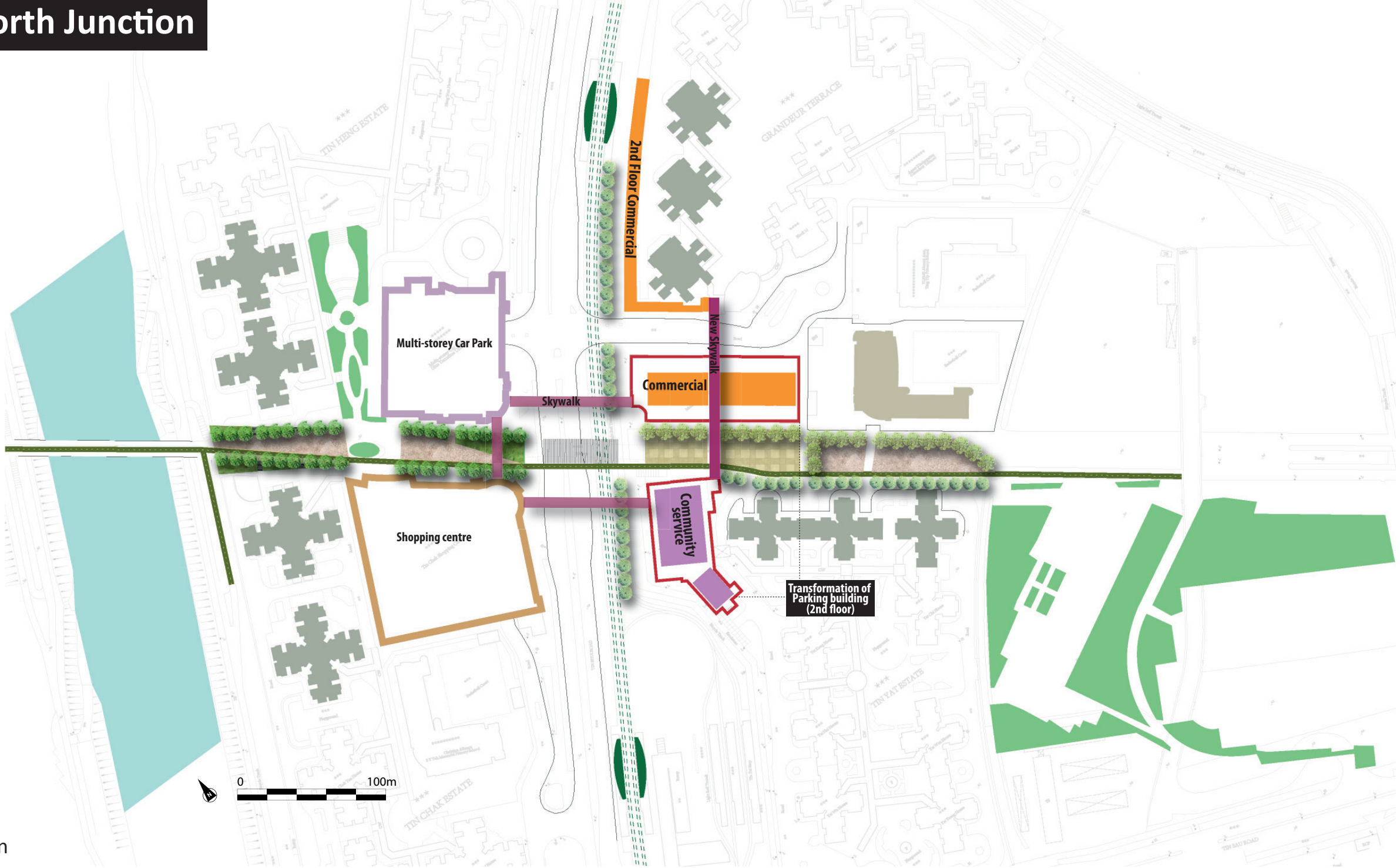
Design - North Junction



Ground Level Plan



Design - North Junction



Elevated Level Plan



Design - North Junction

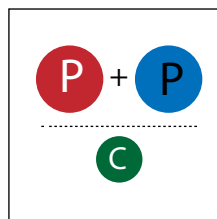
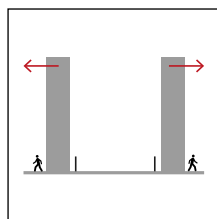


Before



After

Design - New Street



shopping centre connected only by skywalk



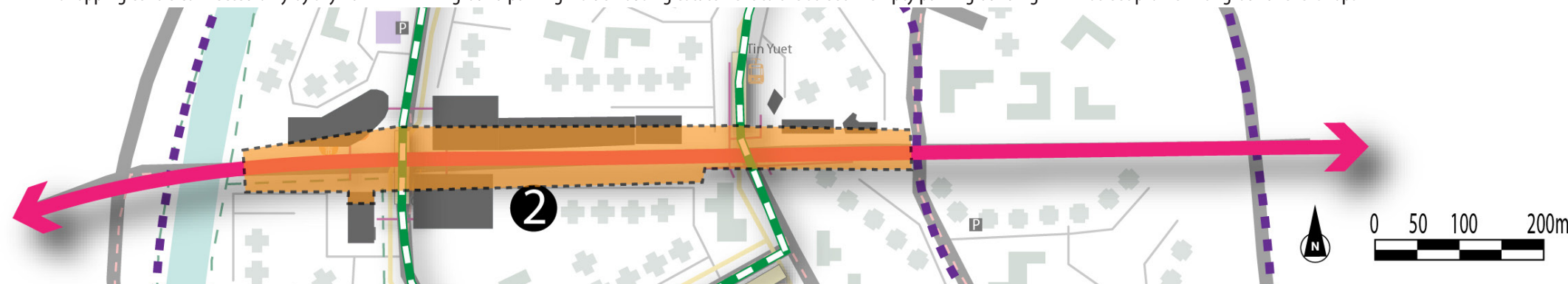
ground parking inside housing estate next to the street



empty parking building



street profile with ground level shops



street profile only friendly for car

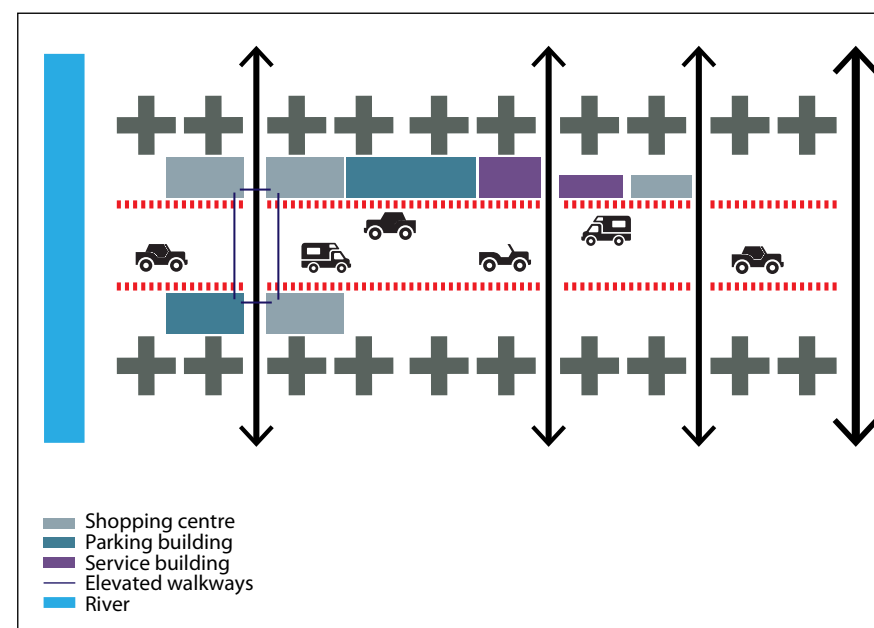


ground level shops in a new housing estate

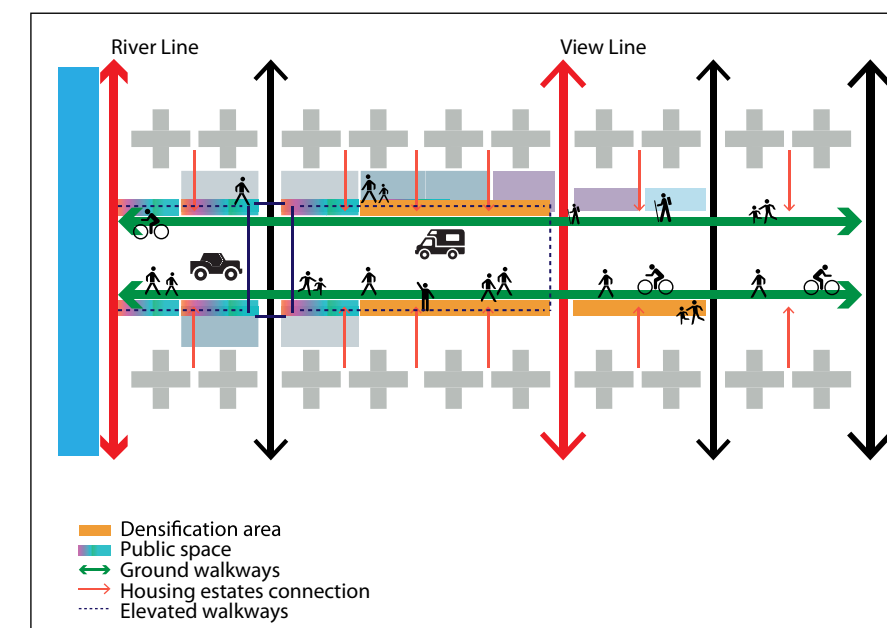


schools

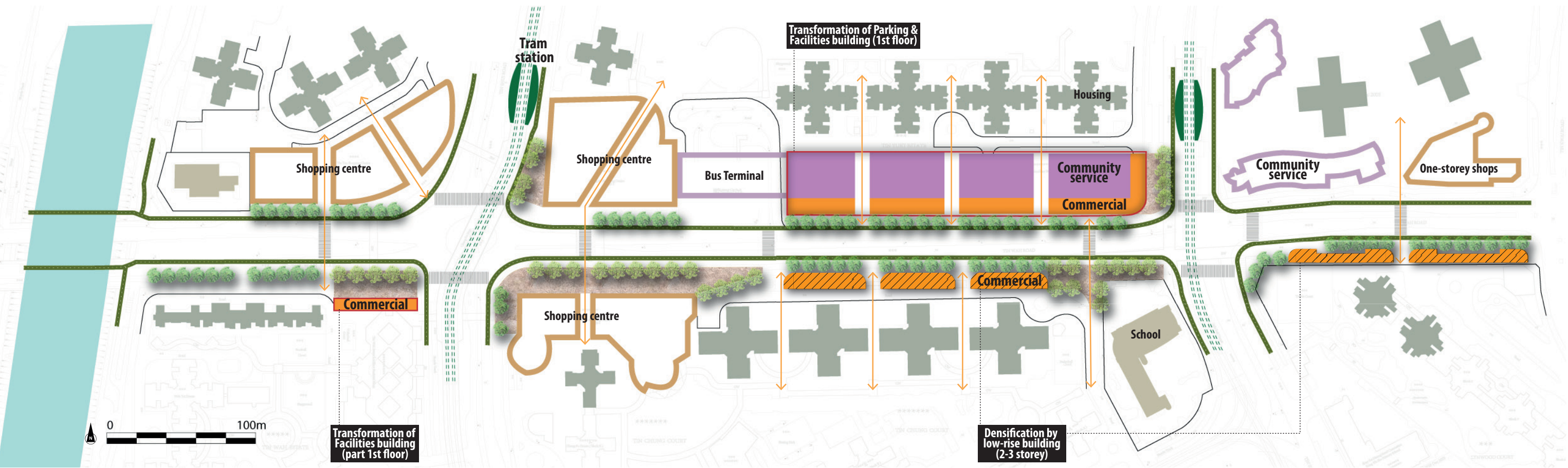
CURRENT



FUTURE



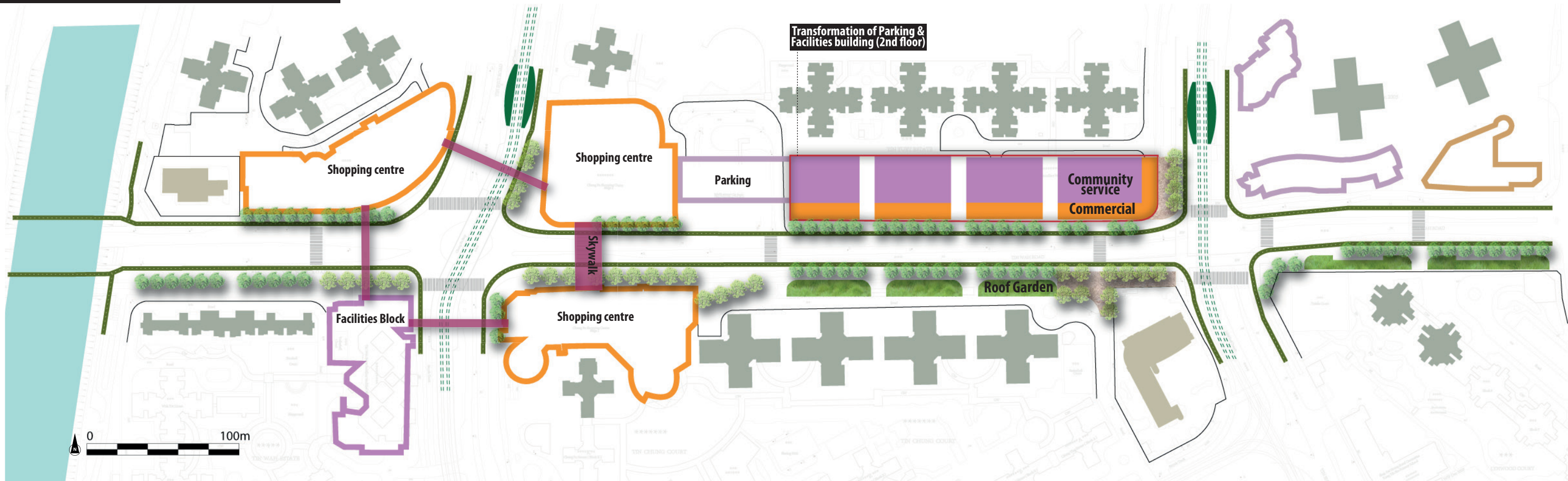
Design - New Street



Ground Level Plan



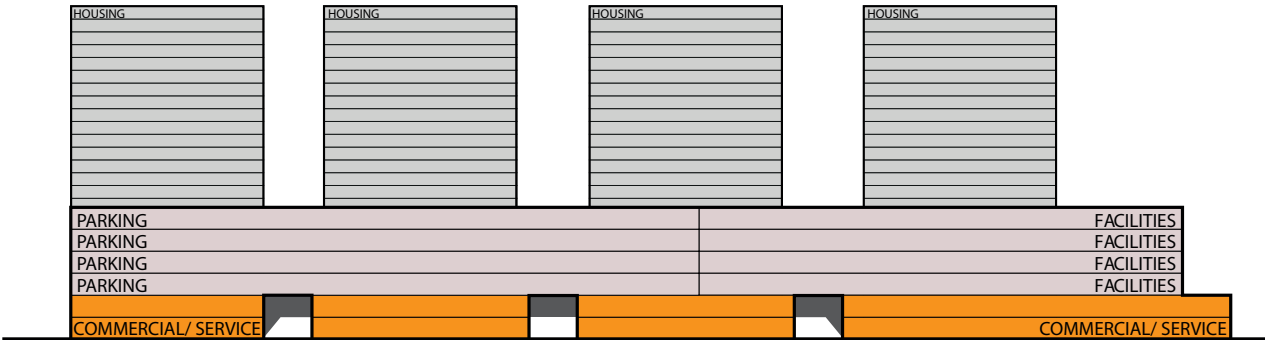
Design - New Street



Elevated Level Plan



Before



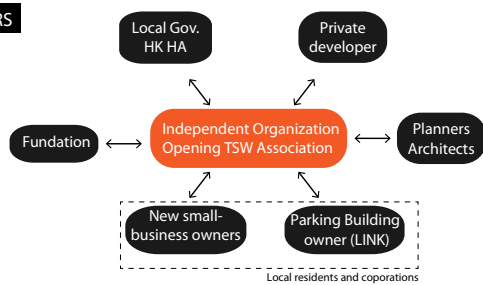
After

0 10 20m

Transformation of Parking building

New Street - Flexibility

STAKEHOLDERS



STAKEHOLDERS

Coordinator

-- Independent Organization of Opening TSW Association

Public sector

-- Local Government / HK HA
-- Foundation

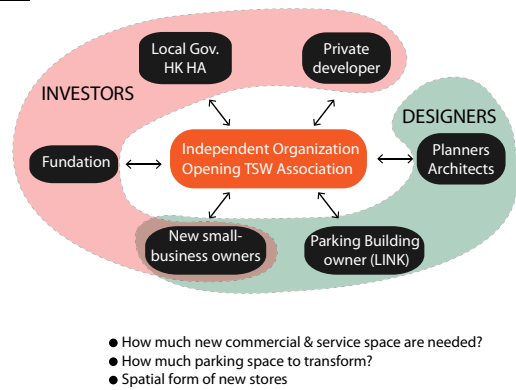
Private sector

-- Private developer
-- Planners / Architects

Local residents and corporations

-- New small business owners
-- Parking Building owners (LINK)

PLAN & DESIGN



PLAN & DESIGN

Coordinator

-- Independent Organization of Opening TSW Association

Investors

-- Local Government / HK HA
-- Foundation
-- Private developer
-- New small business owners

Designers

-- Planners / Architects
-- New small business owners
-- Parking Building owners (LINK)

All stakeholders have agreement on:

- 1) How much new commercial & service space are needed?
- 2) How much parking space to transform?
- 3) Spatial form of new stores

CONSTRUCTION



CONSTRUCTION

Coordinator

-- Independent Organization of Opening TSW Association

Densification & transformation programs by

-- New small business owners
-- Parking Building owners (LINK)
-- Private developer
-- Local employment

New Street - Flexibility

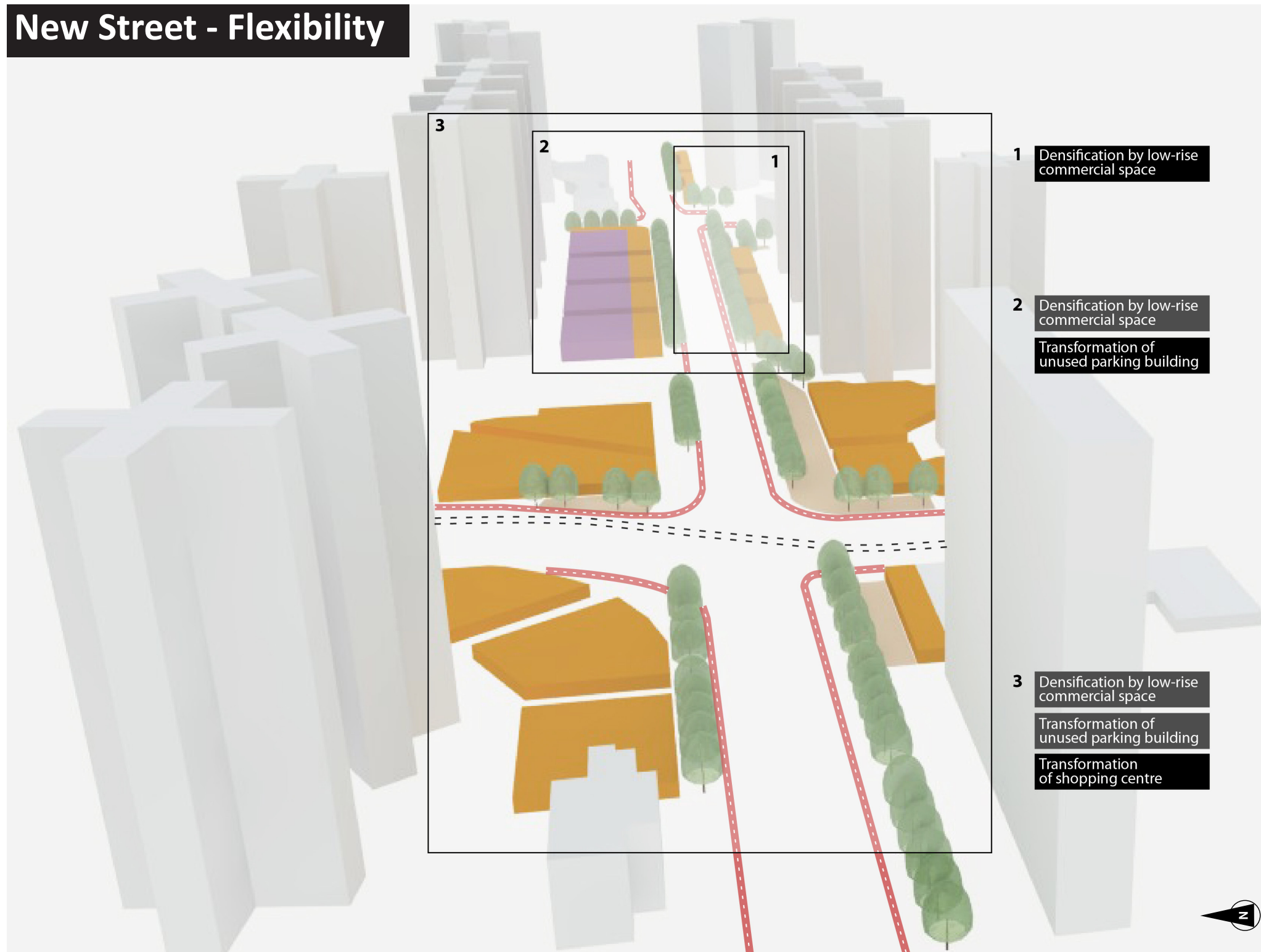


Fig. 42: New Street scenario 3

New Street Scenario 1: Densification by low-rise commercial space

In this scenario, some empty space would be used for densification by low-rise buildings. There will be more small-business commercial space and it would have influence on two housing estates.

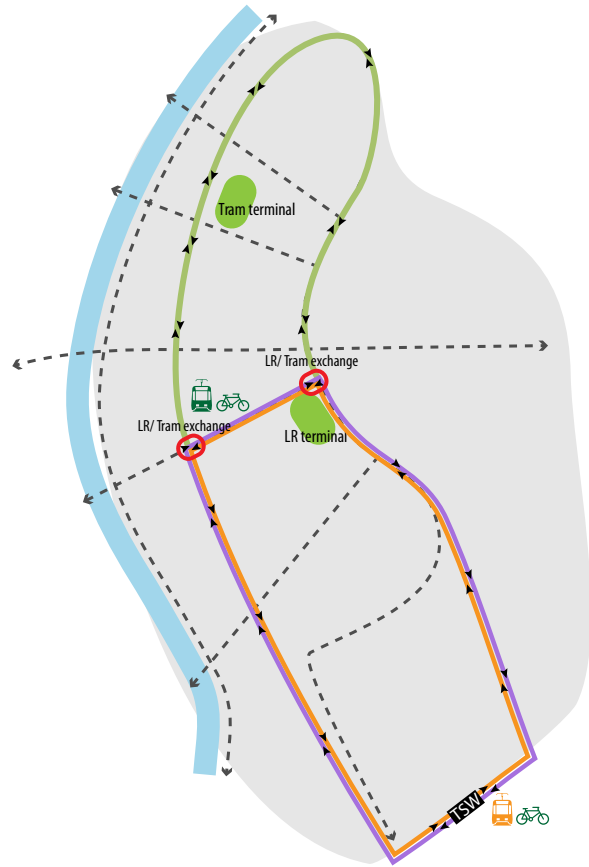
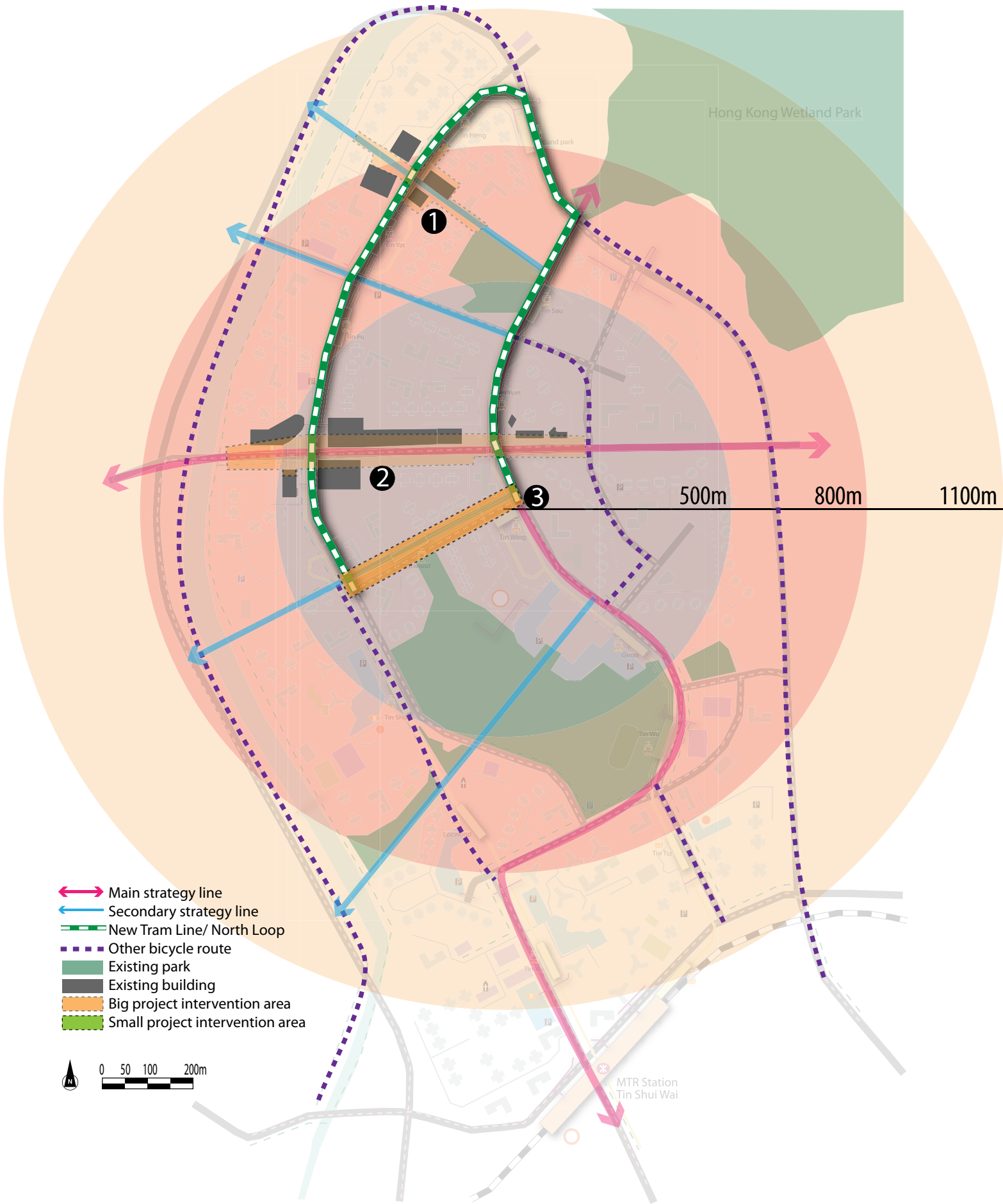
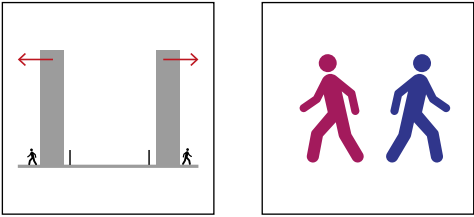
New Street Scenario 2: Densification by low-rise commercial space + Transformation of unused parking building

In this scenario, some parking space will be also transformed into small-business commercial and service. These interventions would have influence on four housing estates, and create some street life on east part of New Street.

New Street Scenario 3: Densification by low-rise commercial space + Transformation of unused parking building + Transformation of shopping centre

In this scenario, the existing shopping centres will be also transformed for diverse ground connectivity. So, the whole New Street (fig.42) would become a lively and attractive centrality for TSW, with extension to the riverfront, even to new development area of HSK.

Design - North Loop



North Loop

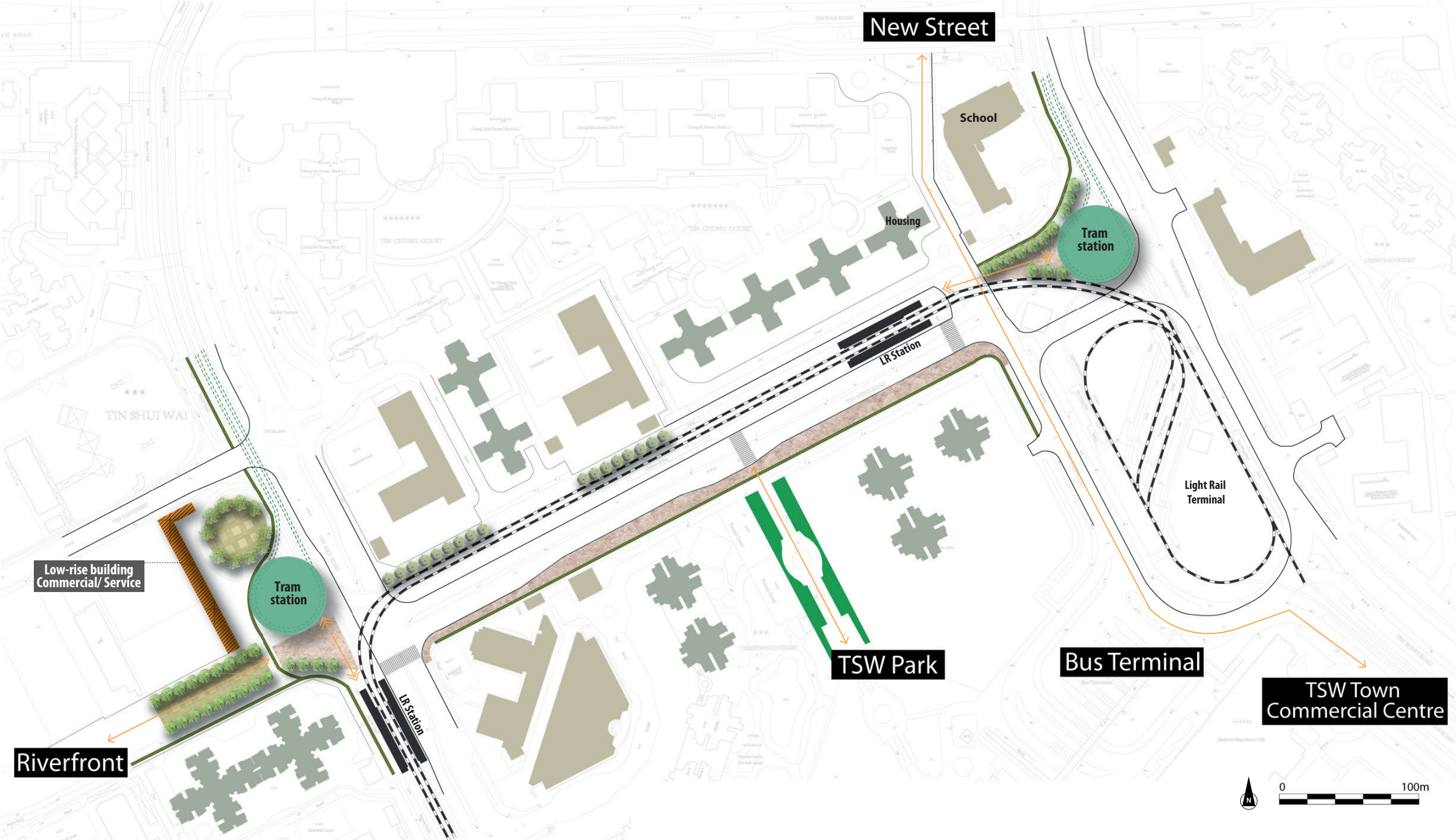
New Tram Line
Length: 2.2km
Stop: 9
LR/ Tram exchange station: 2

Residents in service
500m Radius: 60,000
800m Radius: 100,000
1100m Radius: 150,000

Housing estates in service
8 PRH, 2 HOS, 1 Private



Design - North Loop



Design - North Loop

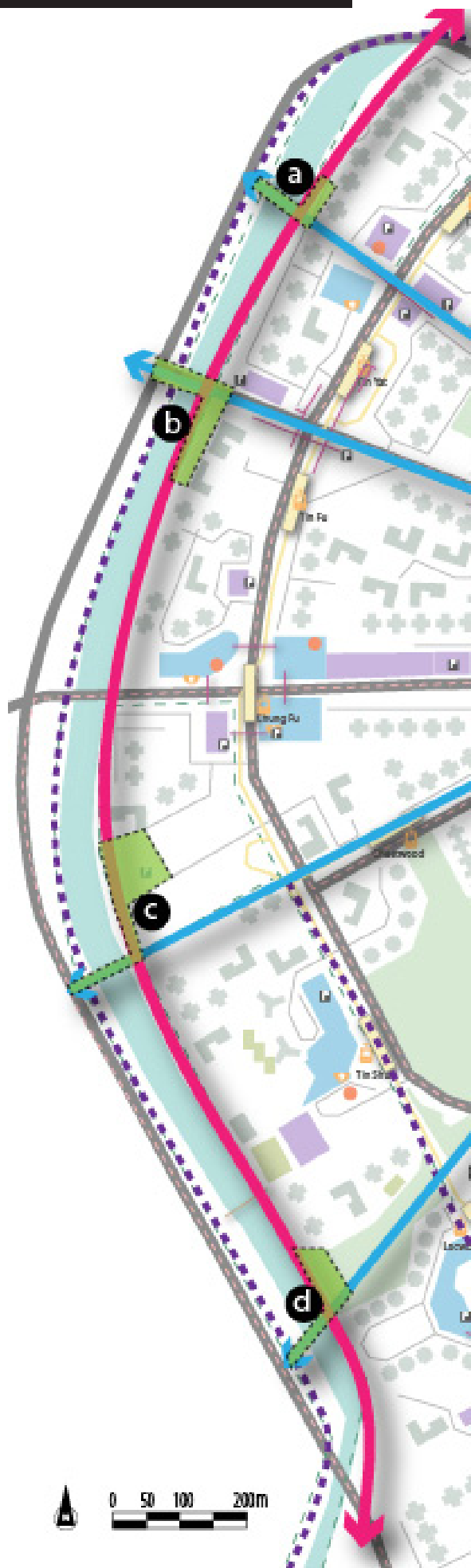


Before



After

Design - Riverfront



the other side of the river, and SZ at the background



fence surrounded the housing



flowing hawkker in the dawn market



public space without river view



River and the housing



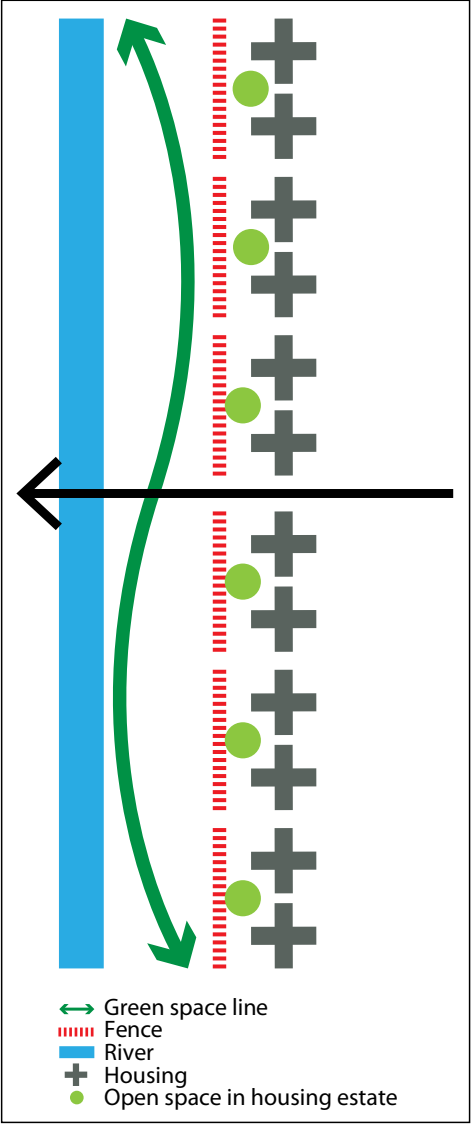
Riverfront profile



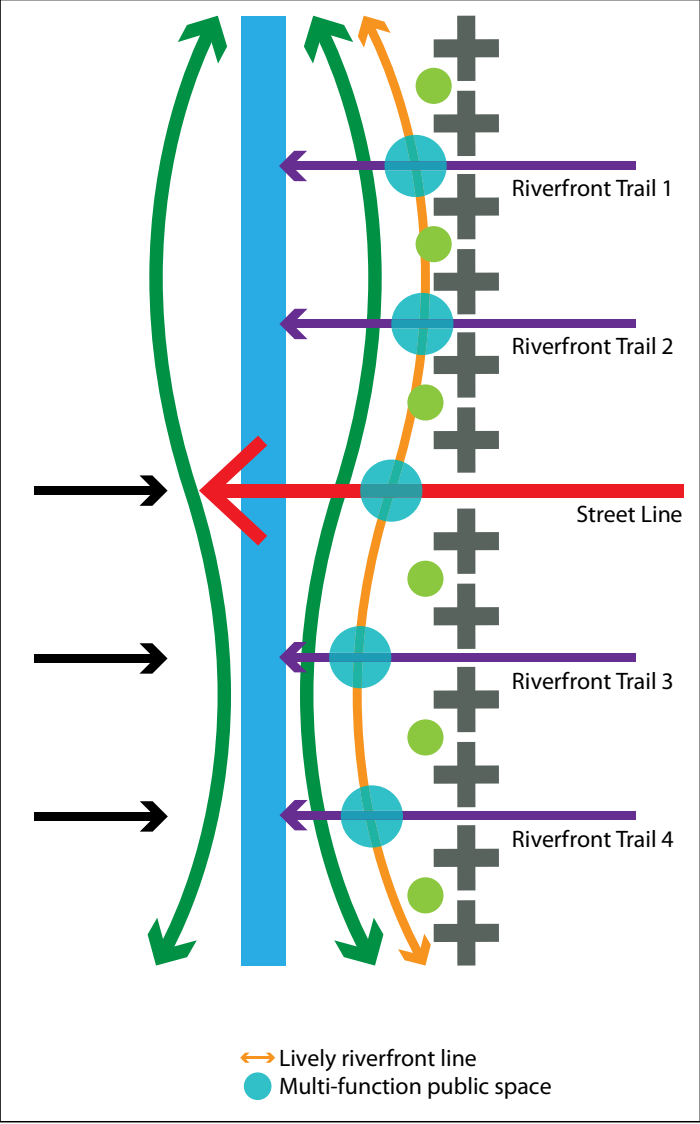
Tin Shui Rd Park



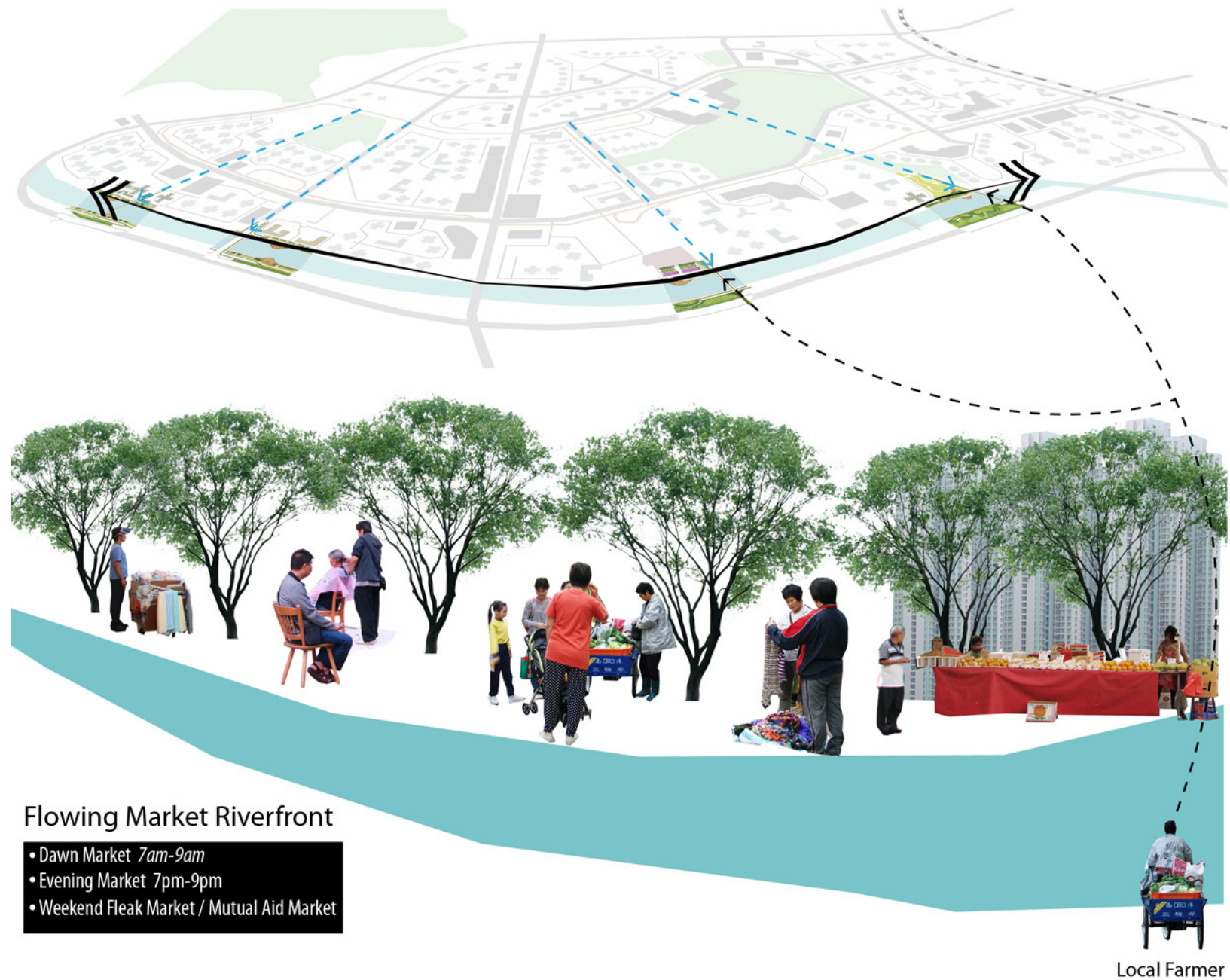
CURRENT



FUTURE



Design - Riverfront



Design - Riverfront

Riverfront A



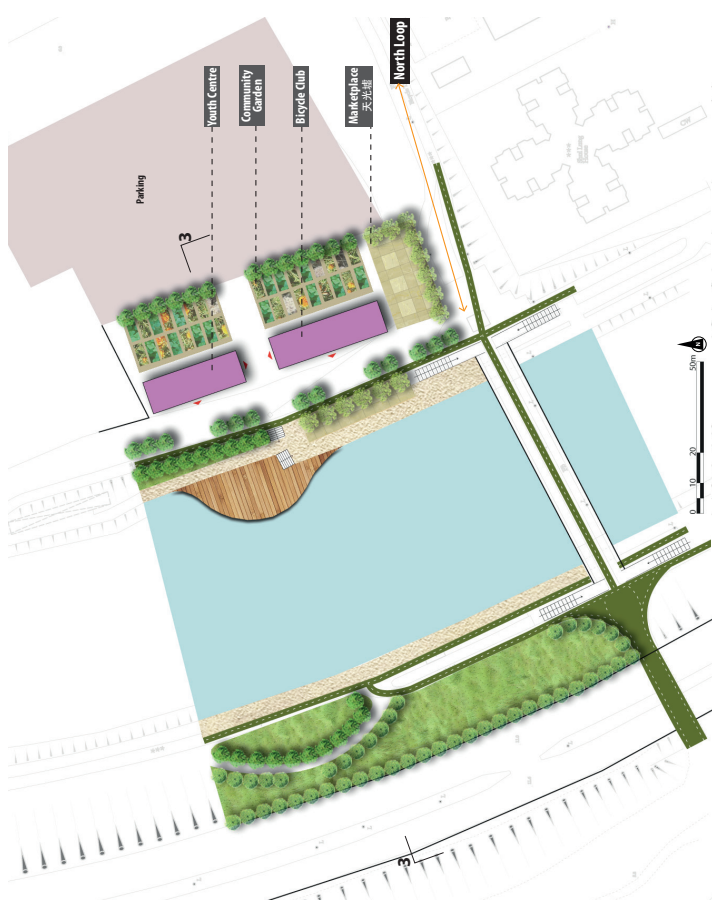
Extension of North Junction

Riverfront B



Existing Marketplace

Riverfront C

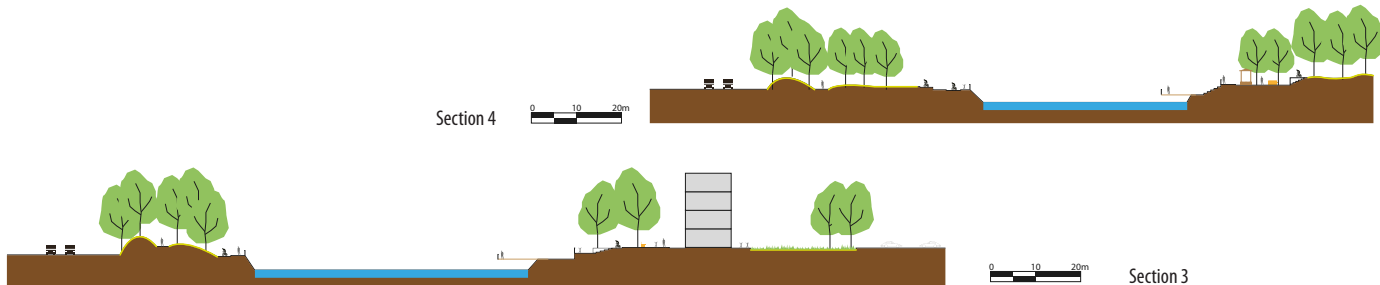
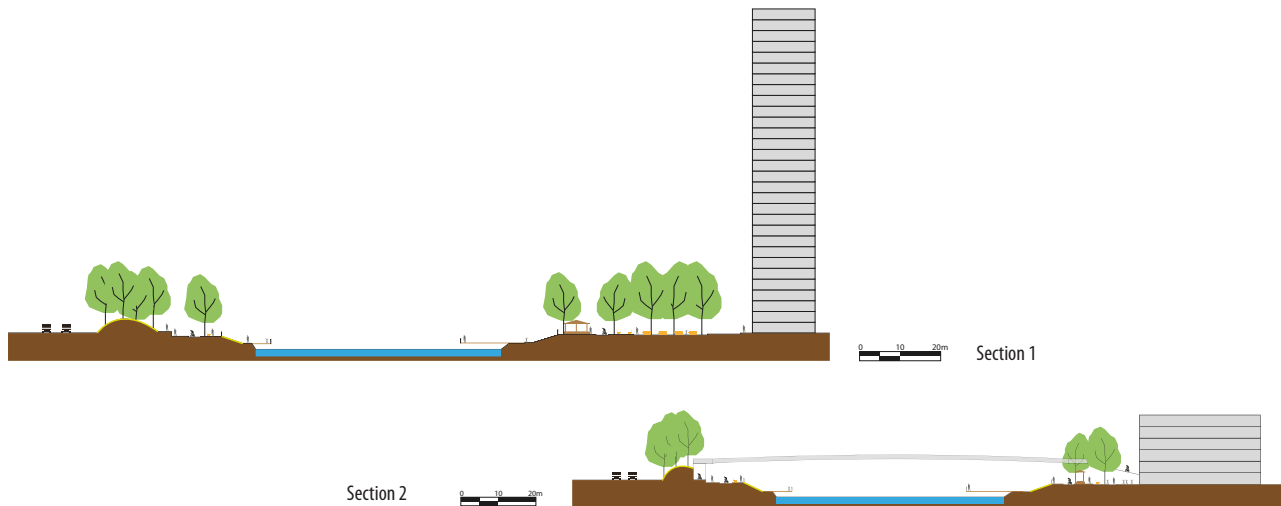


Extension of North Loop

Riverfront D

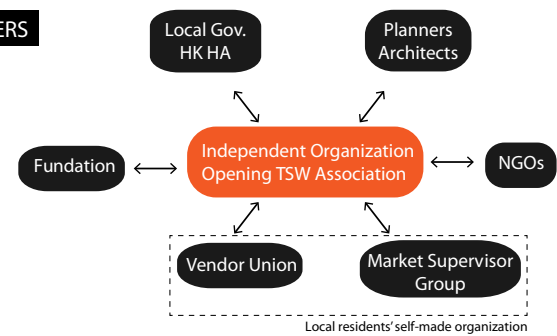


Extension of Park



Riverfront - Flexibility

STAKEHOLDERS



STAKEHOLDERS

Coordinator

-- Independent Organization of Opening TSW Association

Public sector

-- Local Government / HK HA
-- Foundation

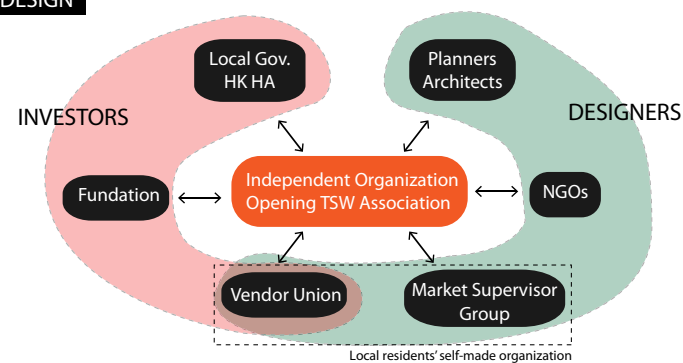
Private sector

-- Planners / Architects
-- NGOs

Local residents' self-made organization

-- Vendor Union
-- Market Supervisor Group

PLAN & DESIGN



PLAN & DESIGN

Coordinator

-- Independent Organization of Opening TSW Association

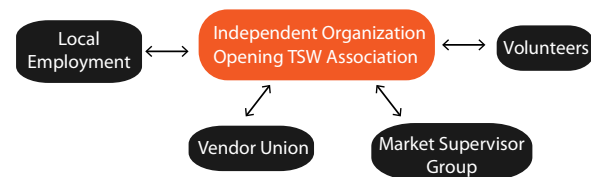
Investors

-- Local Government / HK HA
-- Foundation
-- Vendor Union

Designers

-- Planners / Architects
-- NGOs
-- Vendor Union
-- Market Supervisor Group

CONSTRUCTION



CONSTRUCTION

Coordinator

-- Independent Organization of Opening TSW Association

Self-built program by

-- Vendor Union
-- Market Supervisor Group
-- Local employment
-- Volunteers

MANAGEMENT



MANAGEMENT

Coordinator

-- Independent Organization of Opening TSW Association

Operate markets

-- Vendor Union

Supervise markets

-- Market Supervisor Group

Two groups have agreement on:

- 1) Time schedule of different markets
- 2) Market location and number of vendors
- 3) Cleaning arrangement & noise protection

Riverfront - Flexibility

Riverfront Scenario 1: *Flowing Market Riverfront*

In this scenario, a **flowing market** would be built up to meet the **demand of low-income residents**. It needs **small investment and residents participation**. This scenario would **solve the urgent problems** in TSW



Now



Riverfront Scenario 1

Riverfront Scenario 2: *Flowing Market Riverfront + Water enjoyable Riverfront*

In this scenario, not only low-income residents would benefit from the flowing market, but also **middle and high-income residents could benefit from the water enjoyable riverfront**. So, the riverfront would become lively and attractive. This scenario would **improve the image and living quality of TSW**.



Riverfront Scenario 2

Riverfront Scenario 3: *Flowing Market Riverfront + Water enjoyable Riverfront + HSK Riverfront development*

In this scenario, when **TSW has a lively and attractive riverfront**, it would promote the development of the other side of the **riverfront in HSK**. Finally, both TSW and HSK would benefit from the riverfront. This scenario is a **long term vision for TSW**, as well as a **strategy to link TSW with future development in HSK**.



Riverfront Scenario 3







Conclusion

DESIGN GUIDELINES

Bring urban sense and spatial hierarchy into TSW with mix-function & human-scale design.

Diverse & Affordable Transportation

Diverse public transport connections on different scale
Encourage affordable transportation modes without pedestrian connection barrier on local scale

Metro	Light rail	Bus	Tram	Bicycle	Pedestrian
					
<div>HK-SZ</div> <div>HK</div>	<div>WNT</div> <div>TSW</div>	<div>HK-SZ</div> <div>HK</div> <div>WNT</div> <div>TSW</div>	<div>TSW</div>	<div>WNT</div> <div>TSW</div>	<div>TSW</div>

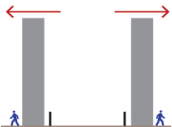
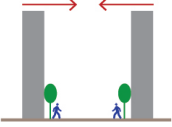




Multi-function Public Space

Public space for leisure activities, economic activities and social activities at different time for various demands

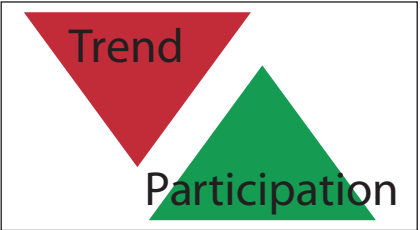
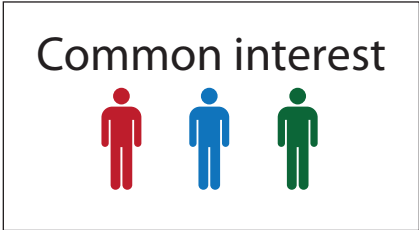
Leisure activities	Economic activities	Social activities
		
<div>Landscape: Green/ Blue</div>	<div>Diverse Market: Dawn/ Night/ Fleak Weekend/ Mutual Aid Market</div>	<div>Open space Community service centres</div>

Lively Street life

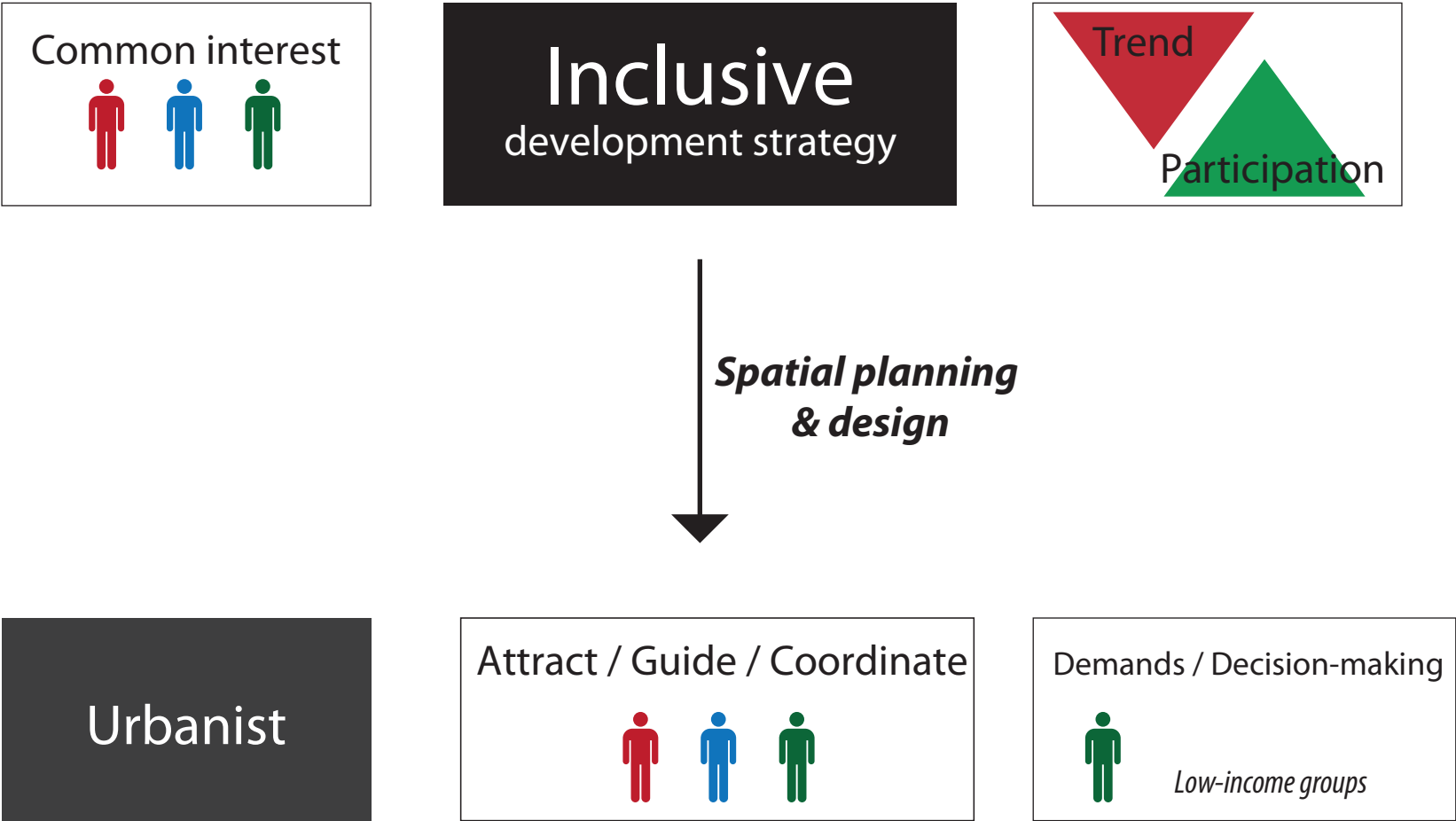
Open the closed-in housing estates to main street
Learning from tradition HK street: mix-function & flexible space, diverse street connections

Open housing estates	HK street	Well-designed street connections
<div><div>Before</div><div>After</div></div>	<div></div>	<div></div>
<div>Remove the fence Open to main street</div>	<div>Densification by low-rise building & Transformation of unused space for small and local business</div>	<div>Bicycle route Ground-level & Elevated walkway</div>

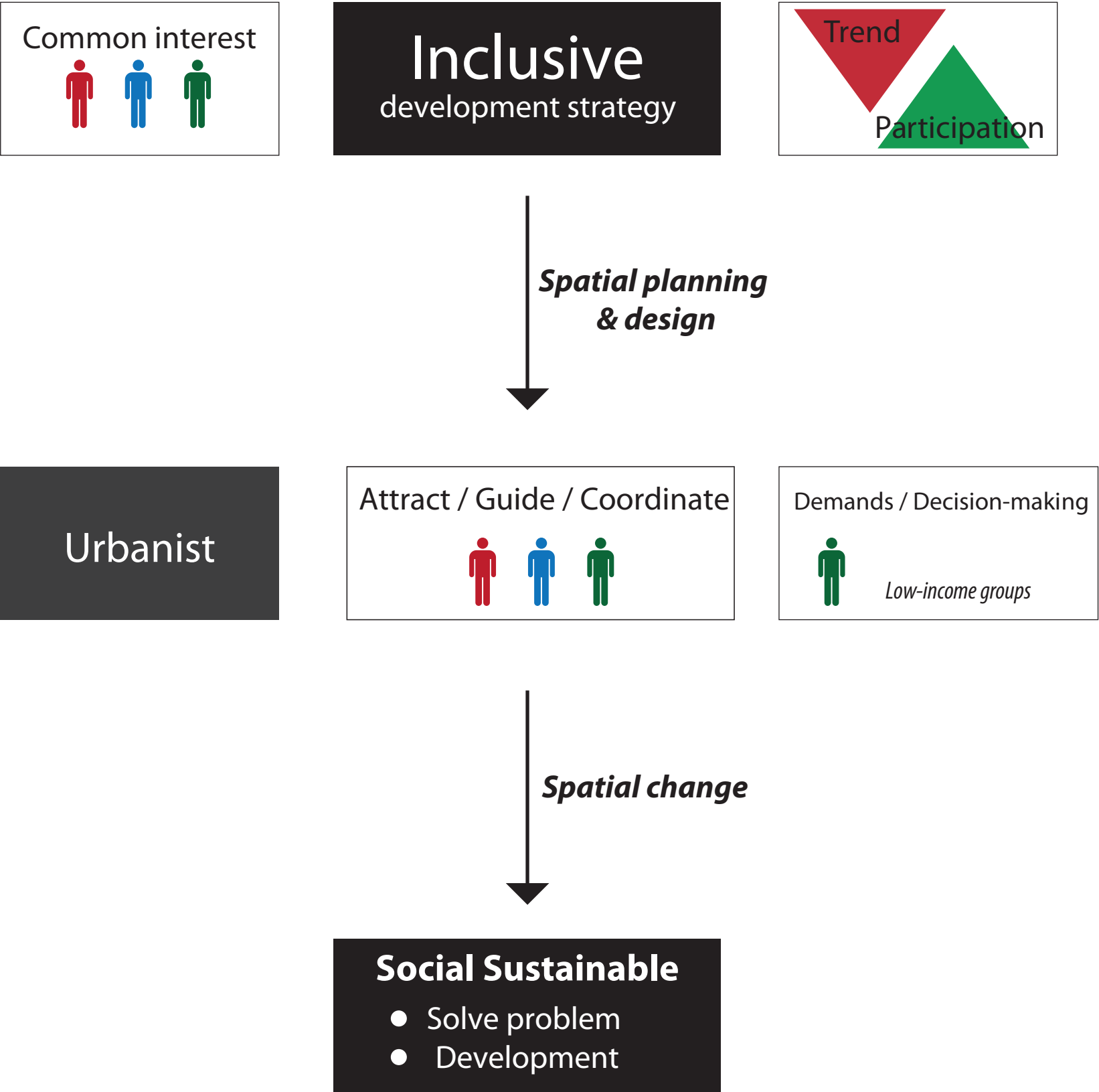
Conclusion



Conclusion



Conclusion



OPENING THE BESIEGED CITY

Exploring an inclusive development strategy for Tin Shui Wai in Hong Kong



Thank you!