

# PROJECT DEVELOPMENT STUDY OF THE GREEN DECK

Harbourfront Commission –  
Task Force on Harbourfront Developments  
In Kowloon, Tsuen Wan and Kwai Tsing

27 September 2022



THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學

Green Deck  
A Catalyst for Vibrant Community  
綠化平台工作室

ARUP  
ROCCO 嚴



# A Dream of Turning Grey to Green



Existing Condition



Green Deck

# Study Background

Inception

PolyU conceived the concept of a “Green Deck” being an innovative social project to provide a green and sustainable deck over the Hung Hom Cross Harbour Tunnel Toll Plaza

2014

Preliminary Feasibility Study was carried out in 2014  
The study was awarded **Green Building Award 2014 (Merit Award) - Research & Planning Category**



2019

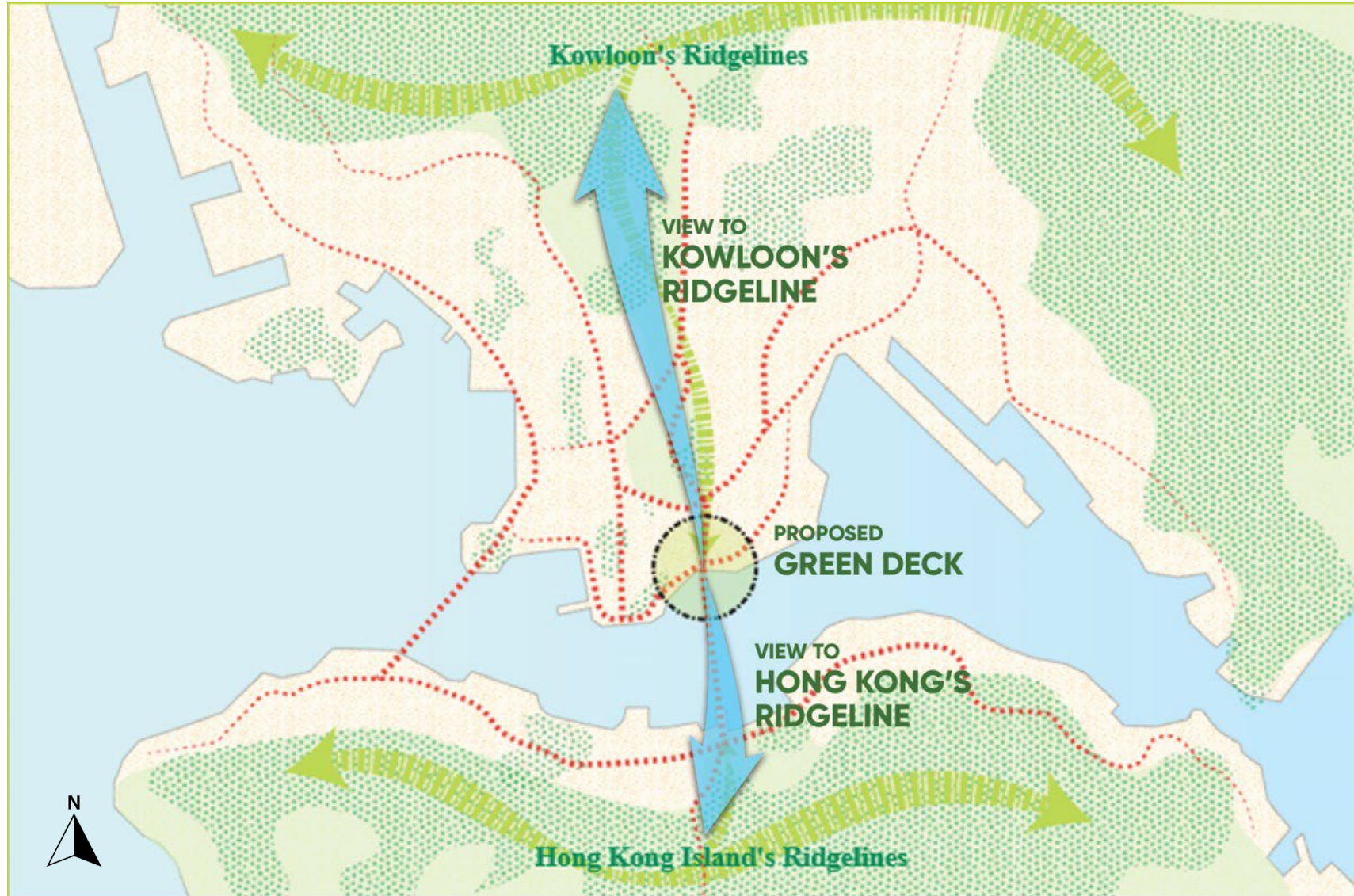
Included in the Chief Executive's Community Project List in 2019

2020

With support from Policy Innovation and Co-ordination Office (PICO), PolyU received funding from Hong Kong Jockey Club Charity Trust to embark on a Project Development Study which commence on Nov 2020



# Strategic Positioning





# Town Planning Perspective

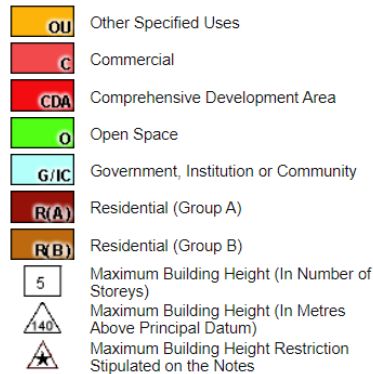


Extracted from Statutory Planning Portal 2 of Town Planning Board

Under the Approved Tsim Sha Tsui Outline Zoning Plan (OZP) No. S/K1/28:

The proposed site of Green Deck is located on zones of “**Road**” and “**Other Specified Uses**” annotated “**Cross Harbour Tunnel Toll Plaza**”, which latter is subjected to building height restriction of 10mPD (24mPD at the CHT Administration Building).

To implement the Green Deck, approval from the Town Planning Board for amendment of the Tsim Sha Tsui Outline Zoning Plan would be required.





# 4 Objectives of the Green Deck

1



Improve air  
quality &  
community  
health

2



Restore  
community  
connectivity

3



Satisfy social  
needs

4



Revitalise urban  
centers and  
upgrading local  
economy



# Proposed Scheme of the 2014 Preliminary Feasibility Study





# Project Development Study

Building on the GD scheme developed in the 2014 feasibility study, a project development study had been commenced in 2020 with objectives below:

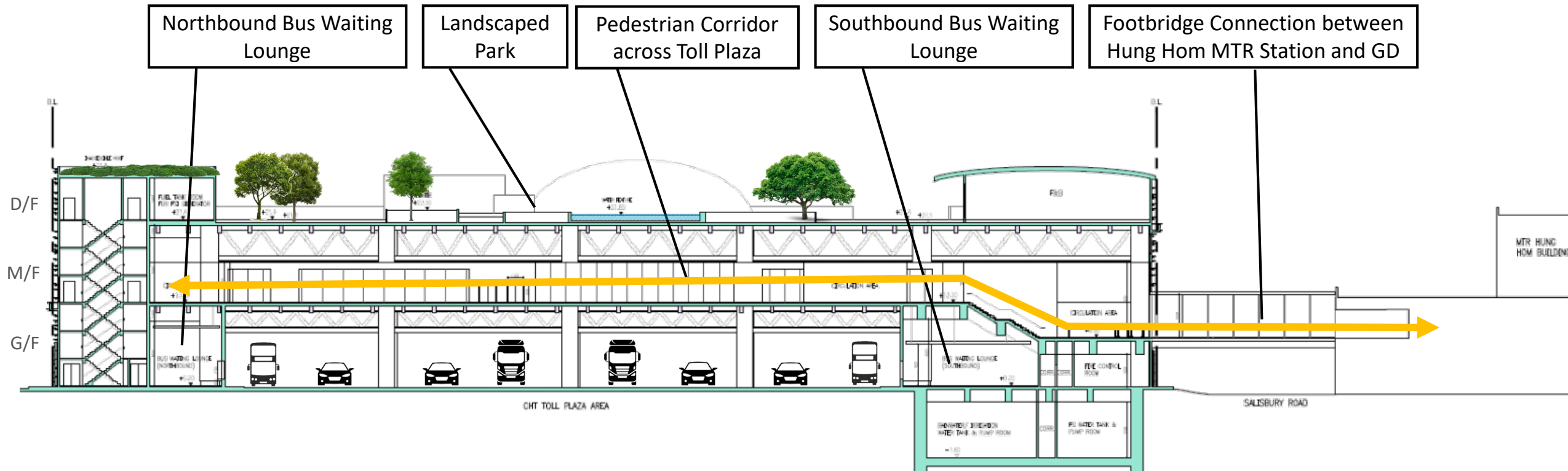
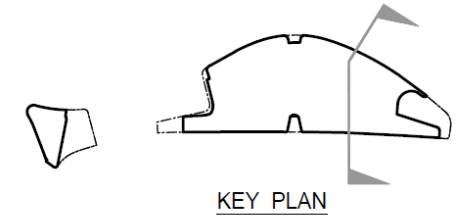
1. To demonstrate no insurmountable difficulties
2. To gain support from public
3. To recommend for early implementation





# Section of the Green Deck

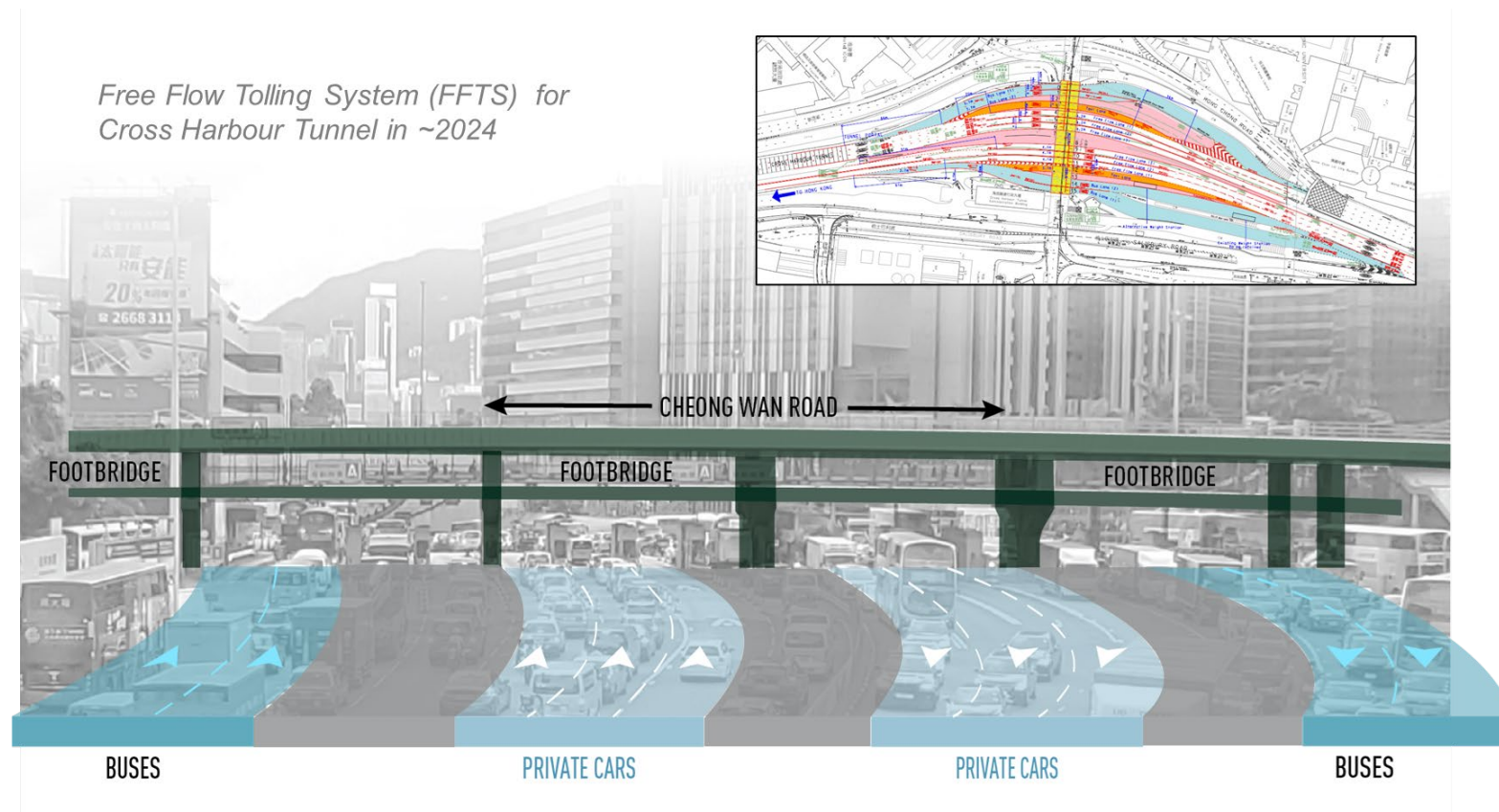
- The proposed Green Deck has 3 Principal Levels:
  - Ground Level (G/F)
  - Mezzanine Level (M/F)
  - Deck Level (D/F)





# Traffic Impact during Construction / Operation

- FFTS will be implemented earliest in 2024 which reduce traffic lanes and provide space for the construction of the GD
- No. of traffic lanes in and out of Cross Harbour Tunnel will be maintained the same as FFTS's configuration during construction and after commencement of GD, thus insurmountable traffic impact caused by GD is not expected.



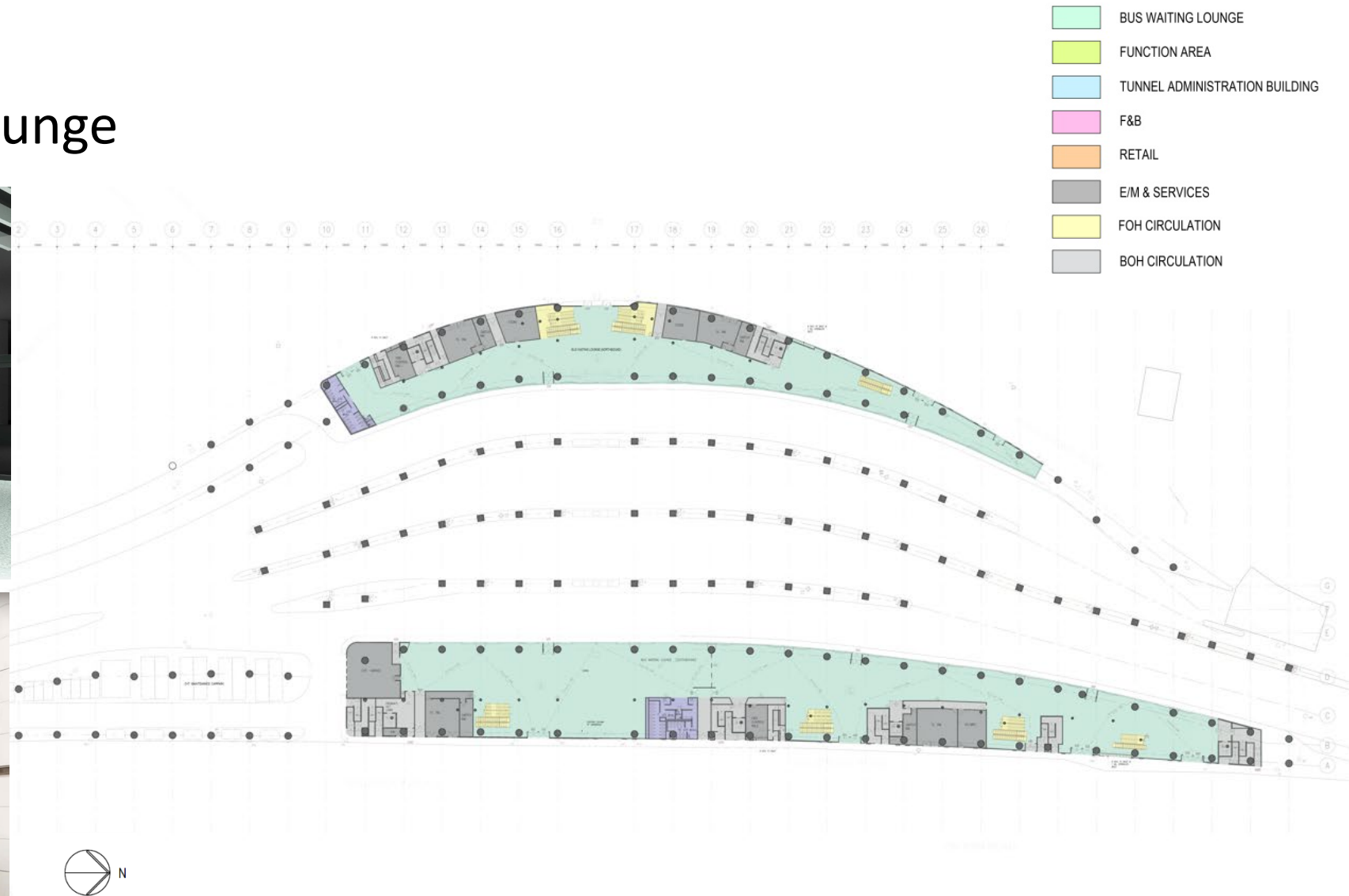


# Ground Level

## • Indoor Bus Waiting Lounge

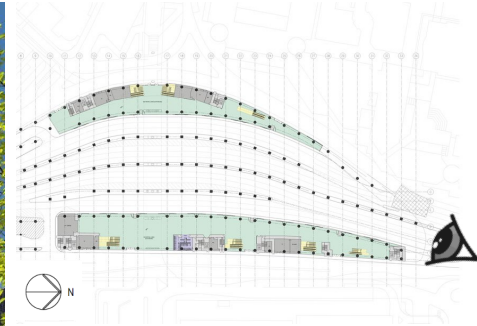


Indoor bus waiting lounge example from Kwun Tong Yue Man Square PTI





# Ground Level - View of GD from Southbound Traffic





# Mezzanine Level

LEGEND

- BUS WAITING LOUNGE

FUNCTION AREA

TUNNEL ADMINISTRATION BUILDING

F&B
- RETAIL

E/M & SERVICES

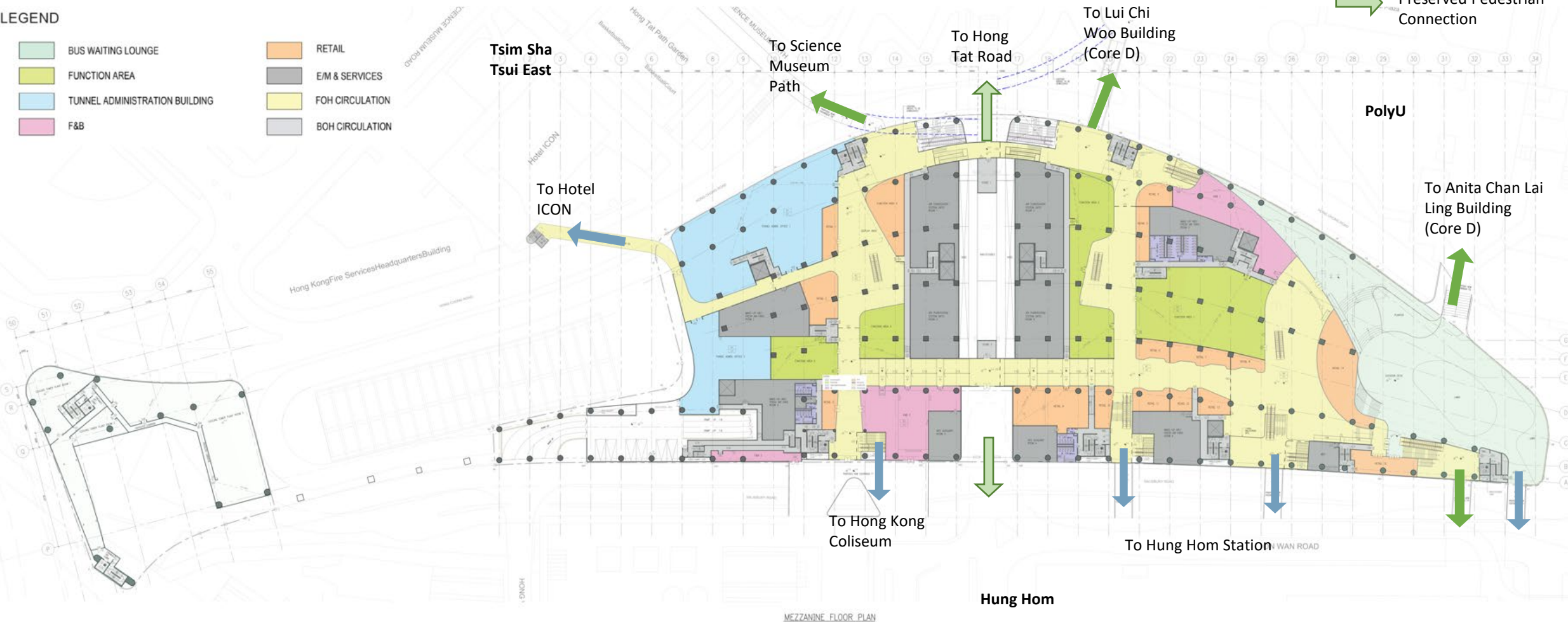
FOH CIRCULATION

BOH CIRCULATION

- Proposed Pedestrian Connection

Revised Pedestrian Connection

Preserved Pedestrian Connection





# Mezzanine Level - Mezzanine Outdoor Deck





# Mezzanine Level – Interior Design



▲ M/F Interior Circulation Area

Landing between D/F and M/F ►





# Deck Level



- LEGEND
- BUS WAITING LOUNGE
  - FUNCTION AREA
  - TUNNEL ADMINISTRATION BUILDING
  - F&B
  - RETAIL
  - E/M & SERVICES
  - FOH CIRCULATION
  - BOH CIRCULATION

The Islet

The Oval

Pedestrian connection  
to the Islet and  
harbourfront on D/F

To TST  
Promenade



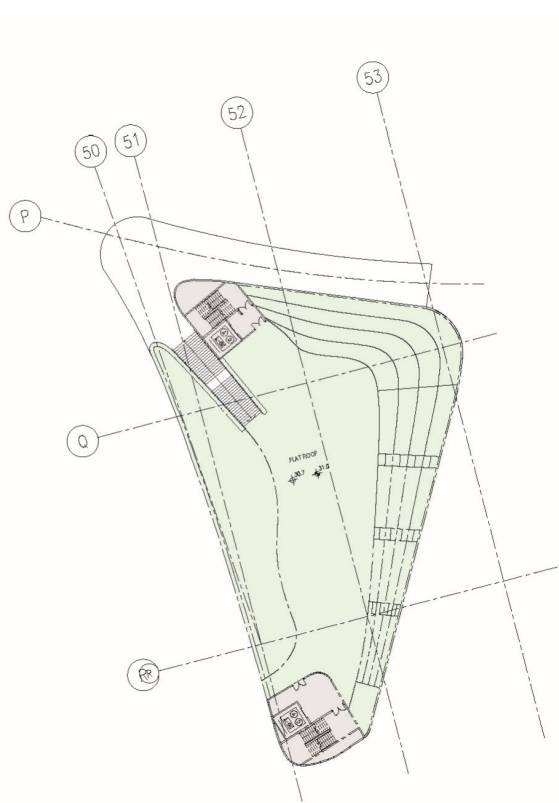


# Deck Level - The Oval

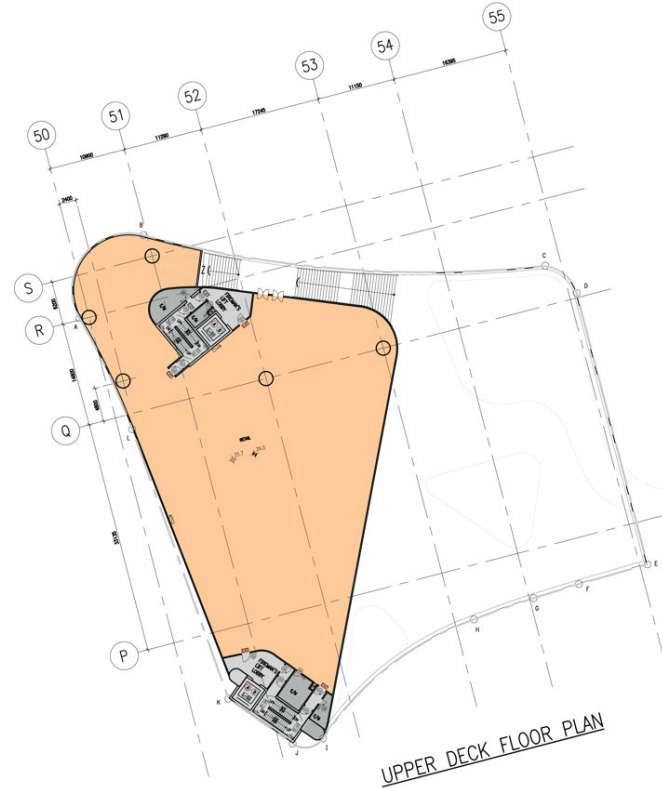




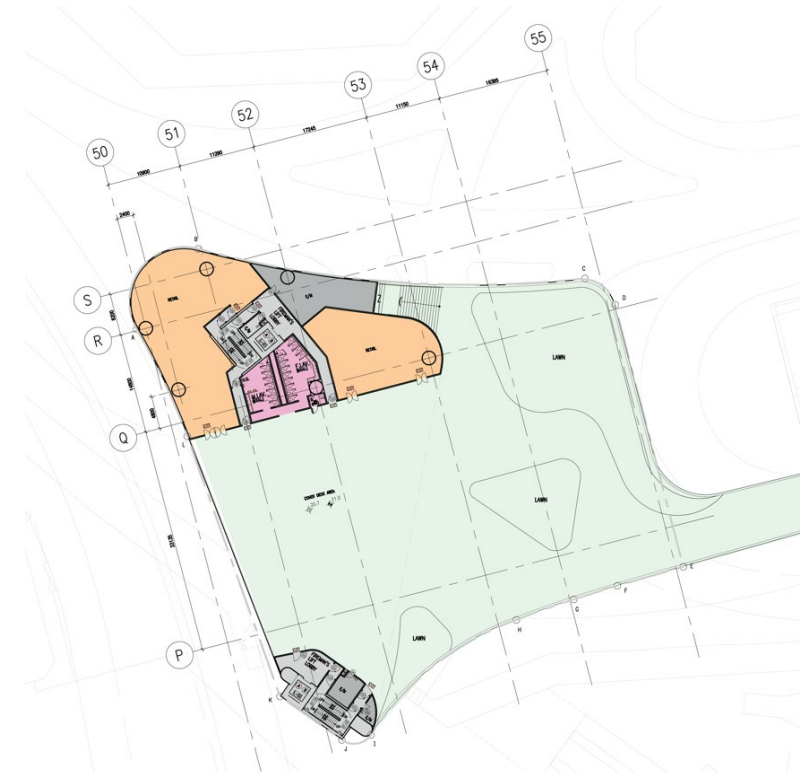
# The Islet – Public Observation Deck



**Roof Level**  
Open-Air Observation Deck

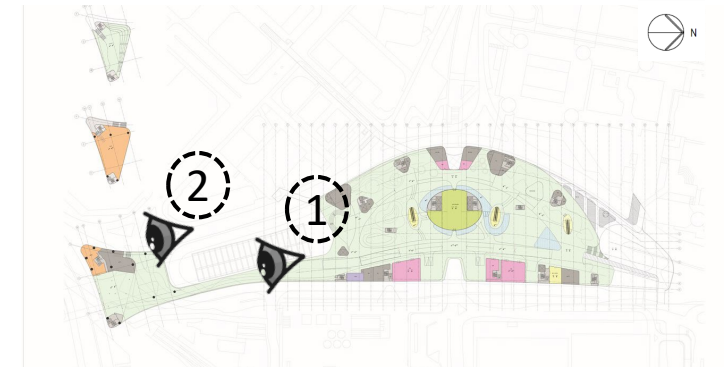


**Upper Deck Level**  
Retail / F&B Space



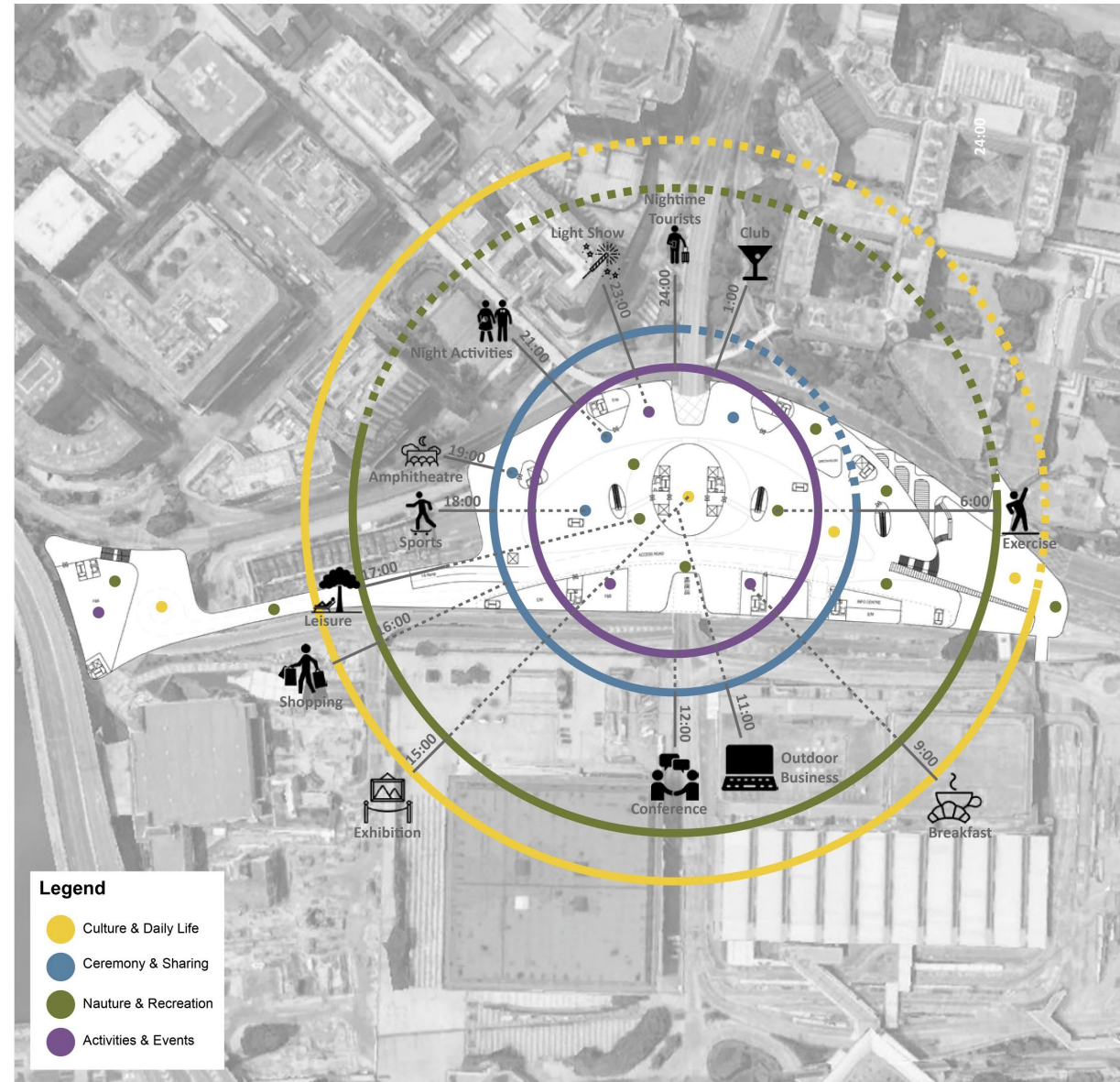
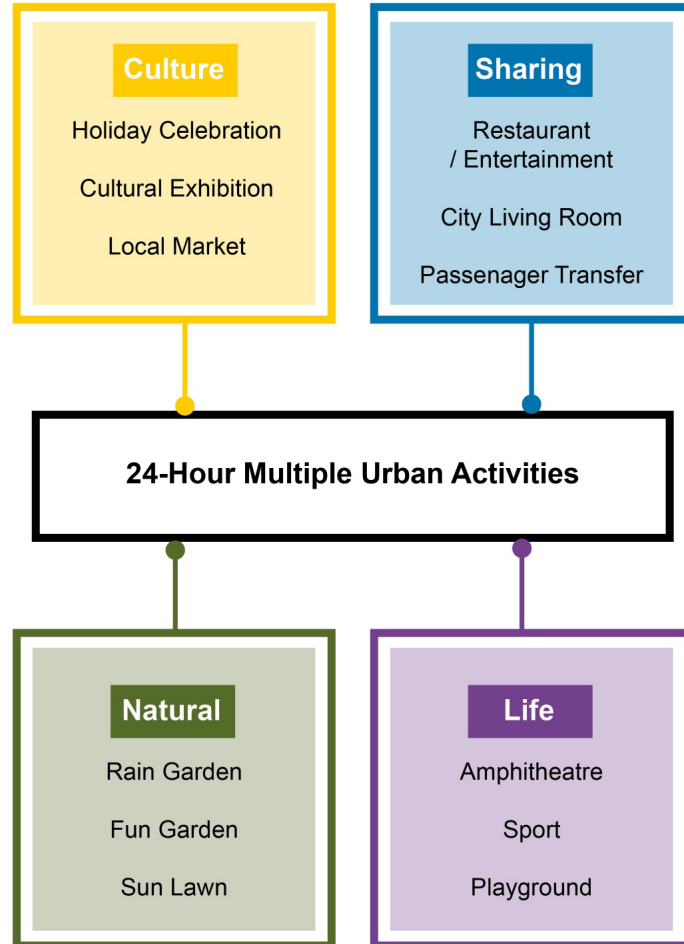
**Deck Level**  
Indoor Observation Deck &  
Retail / Space

# The Islet – Public Observation Deck



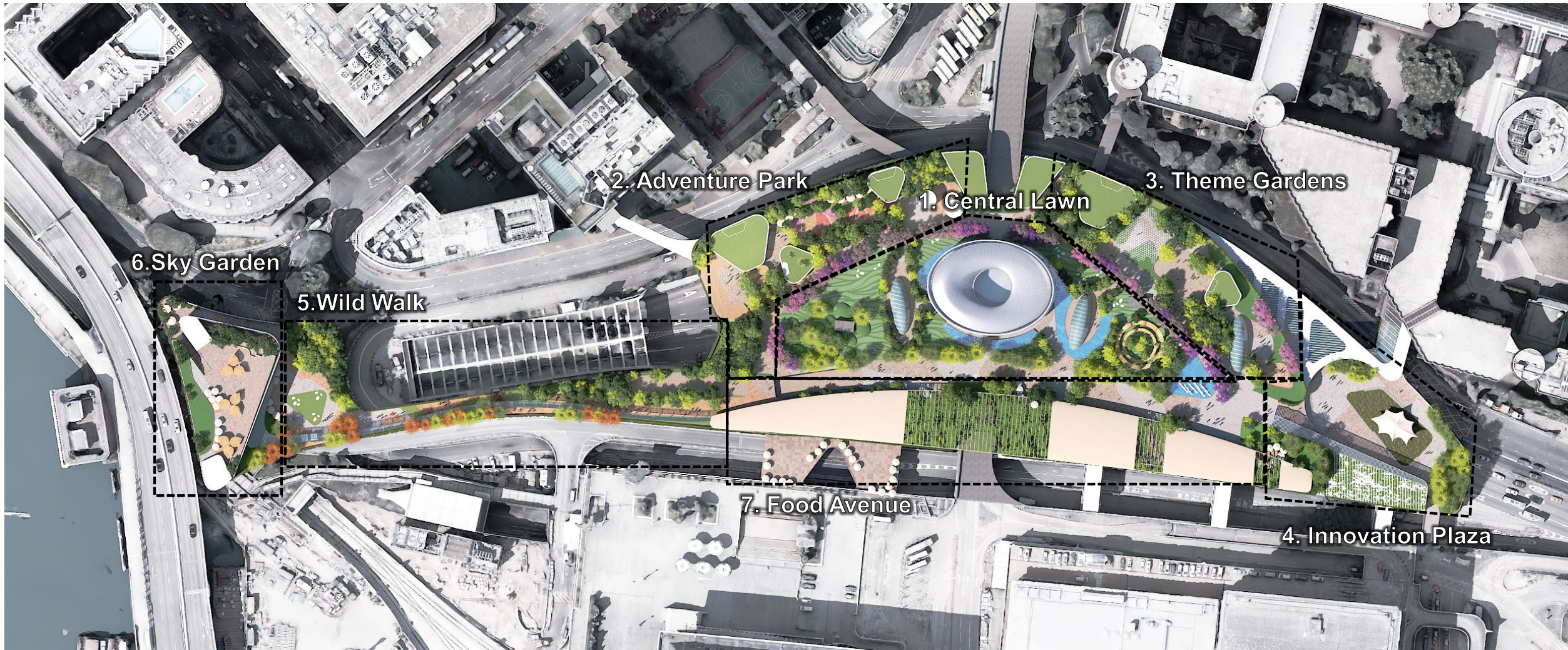


# 24-Hour Multiple Urban Activities





# Landscape Character Zones

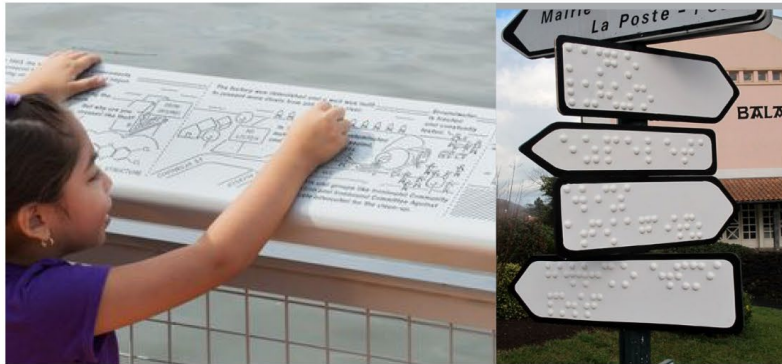




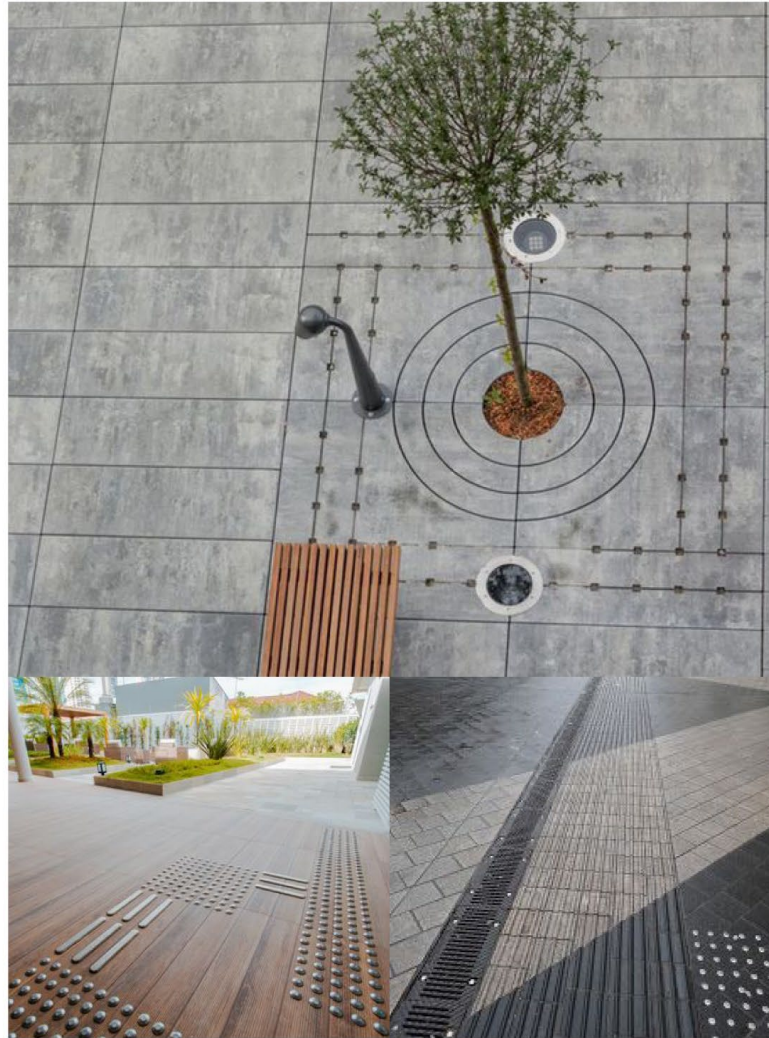
# Inclusive Design Elements



Design with Accessible Ramps



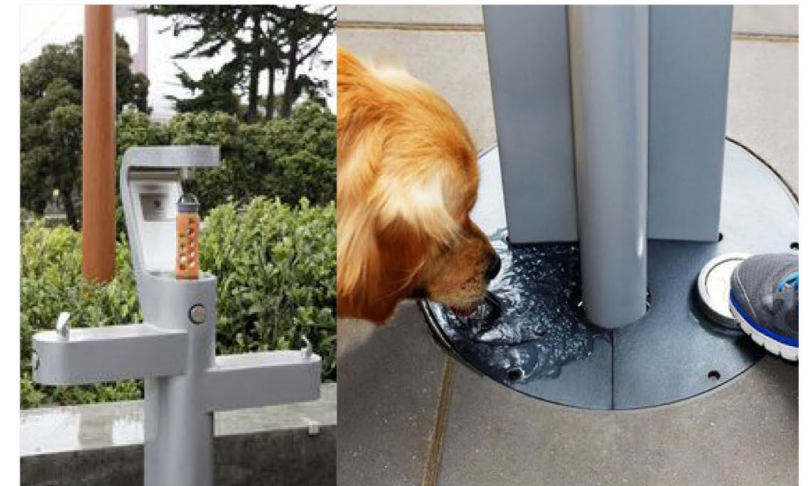
Tactile Map/ Signage



Accessible Surface



Inclusive Play Design



Inclusive Drinking Fountains



# Art Installation & Outdoor Furniture



Art & Sculpture (Hanging Sculpture)



Art & Sculpture (Usable)



Art & Sculpture (Wind Dynamic)



Planter with Seating



Outdoor Dining Set



# Environmental Impact

- Preliminary Environment Review has been conducted covered the following aspects and **no insurmountable impact** has been identified:

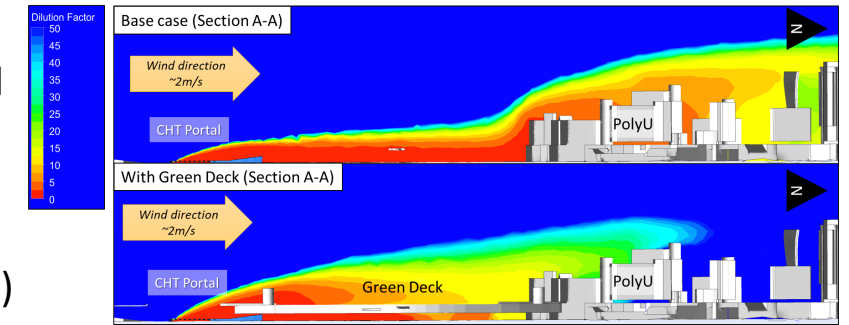
- Air Quality
- Noise impact
- Landscape and Visual Impact
- Sewerage Impact
- Water Quality
- Waste Management
- Land Contamination
- Odour
- Ecological
- Potential Hazardous Sites
- Fisheries Impact

## Air Quality

- preliminary quantitative air quality assessment has been conducted for the operational phase of the Project
- identified and incorporated the key air pollutant sources (including vehicular emissions) in the vicinity

### Improvement With Green Deck

- Base case - Lower dilution factor (higher pollution)
- With Green Deck - High dilution factor (lower pollution)



## Noise Impact

- Review has been conducted for noise impact due to traffic and construction of the Project, which could be properly controlled by the implementation of mitigation measures

### Mitigation Measures – Absorptive Material for GD



Perforated metal absorbing panel



Acoustic spray



# Benefits of the Green Deck to the Community

## 4. Revitalise urban centers and upgrading local economy



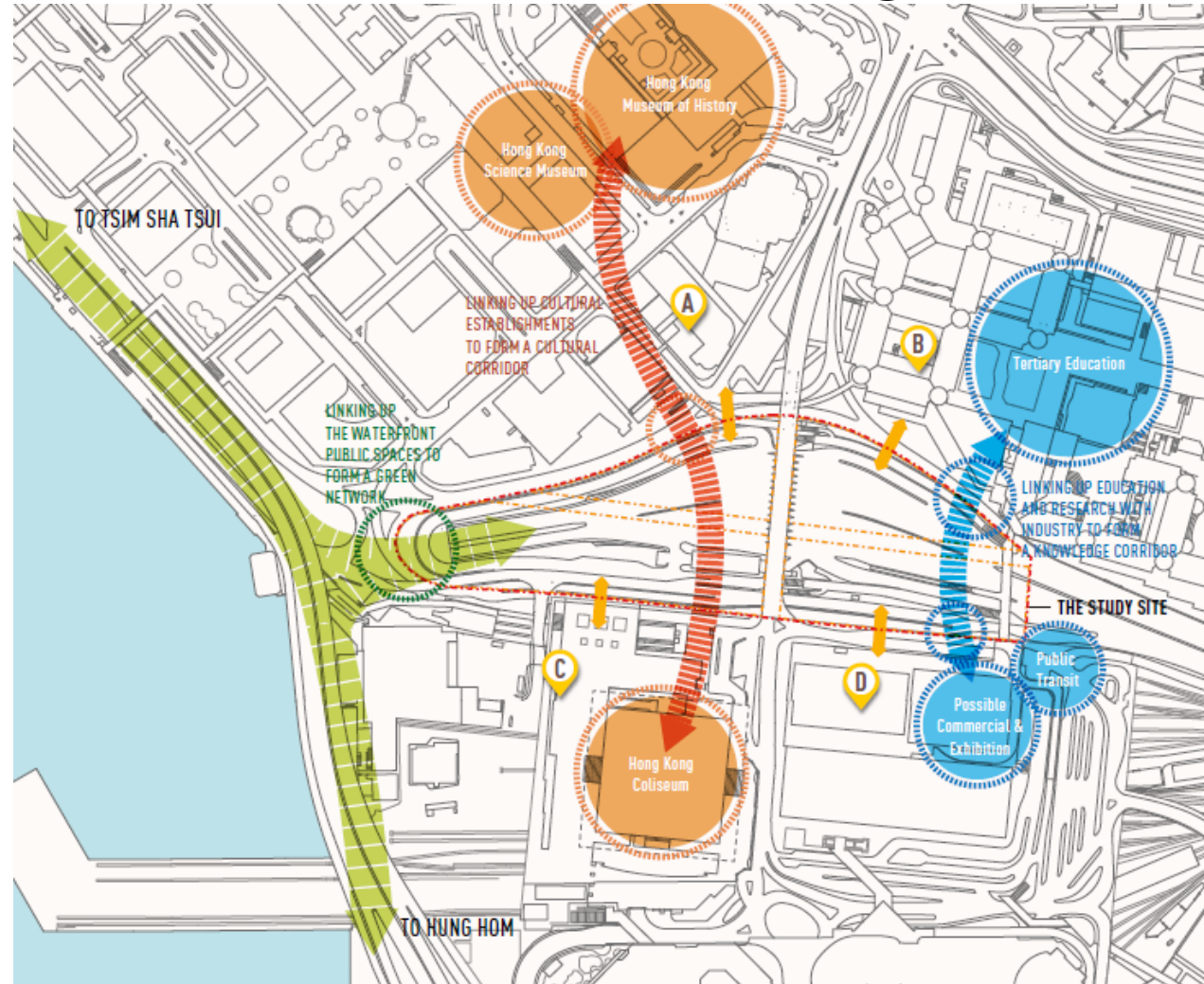
- **Green Deck** could act as catalyst to the neighbourhood and community development
- Physical environment improvement brought by **Green Deck** will lead to appreciation of surrounding property value and creation of opportunities for new jobs



# Benefits of the Green Deck to the Community

## 4. Revitalise urban centers and upgrading local economy

- Enriching the Waterfront – A Destination along the Waterfront





# Benefits of the Green Deck to the Community

## 4. Revitalise urban centers and upgrading local economy

- Culture & Arts – World Class Waterfront



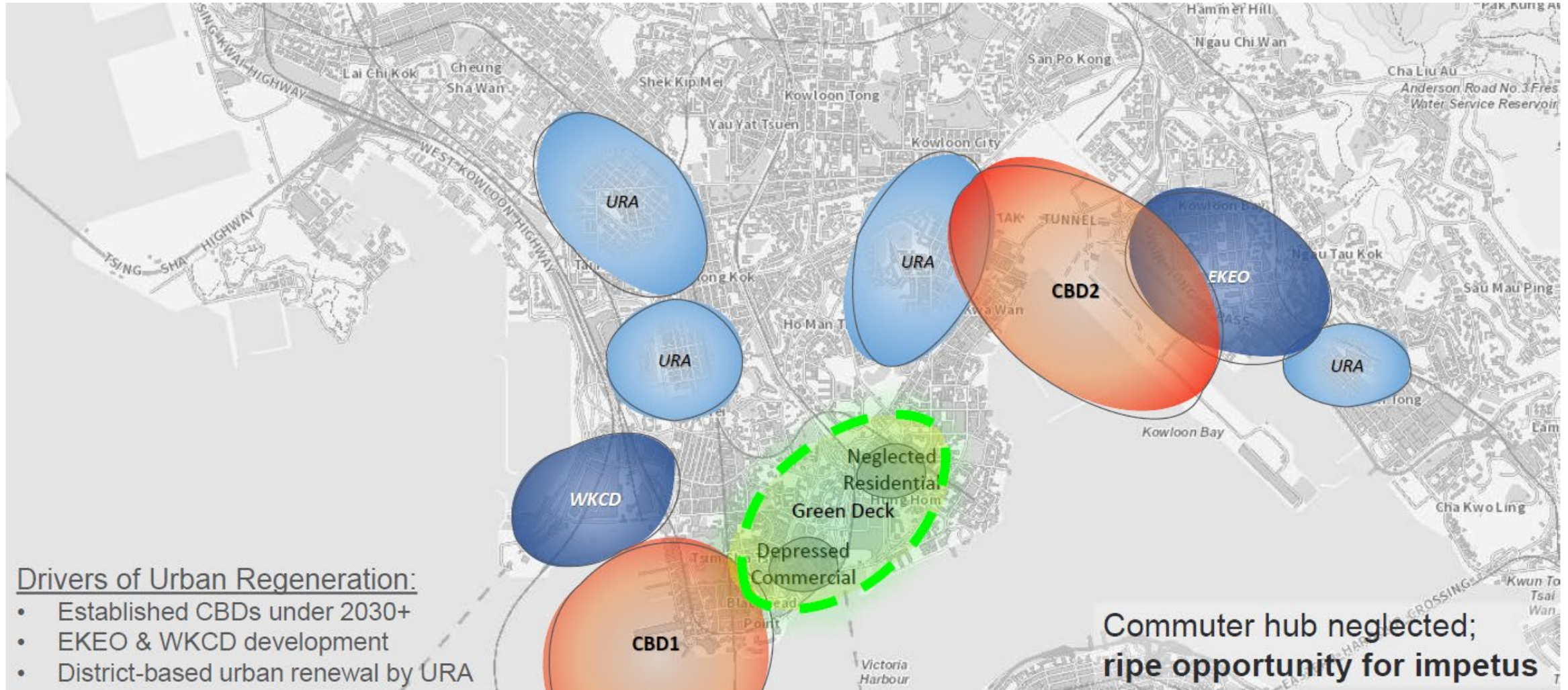


# Benefits of the Green Deck to the Community

## 4. Revitalise urban centers and upgrading local economy



- **Green Deck** as catalyst for revitalising the neighbourhood





# Principle 1: Preserving the Victoria Harbour

- The proposed Green Deck **does not involve any reclamation** within the Victoria Harbour, and thus the objective to preserve the harbour is fulfilled.





# Principle 2: Stakeholder Engagement

## COMMUNITY ENGAGEMENT





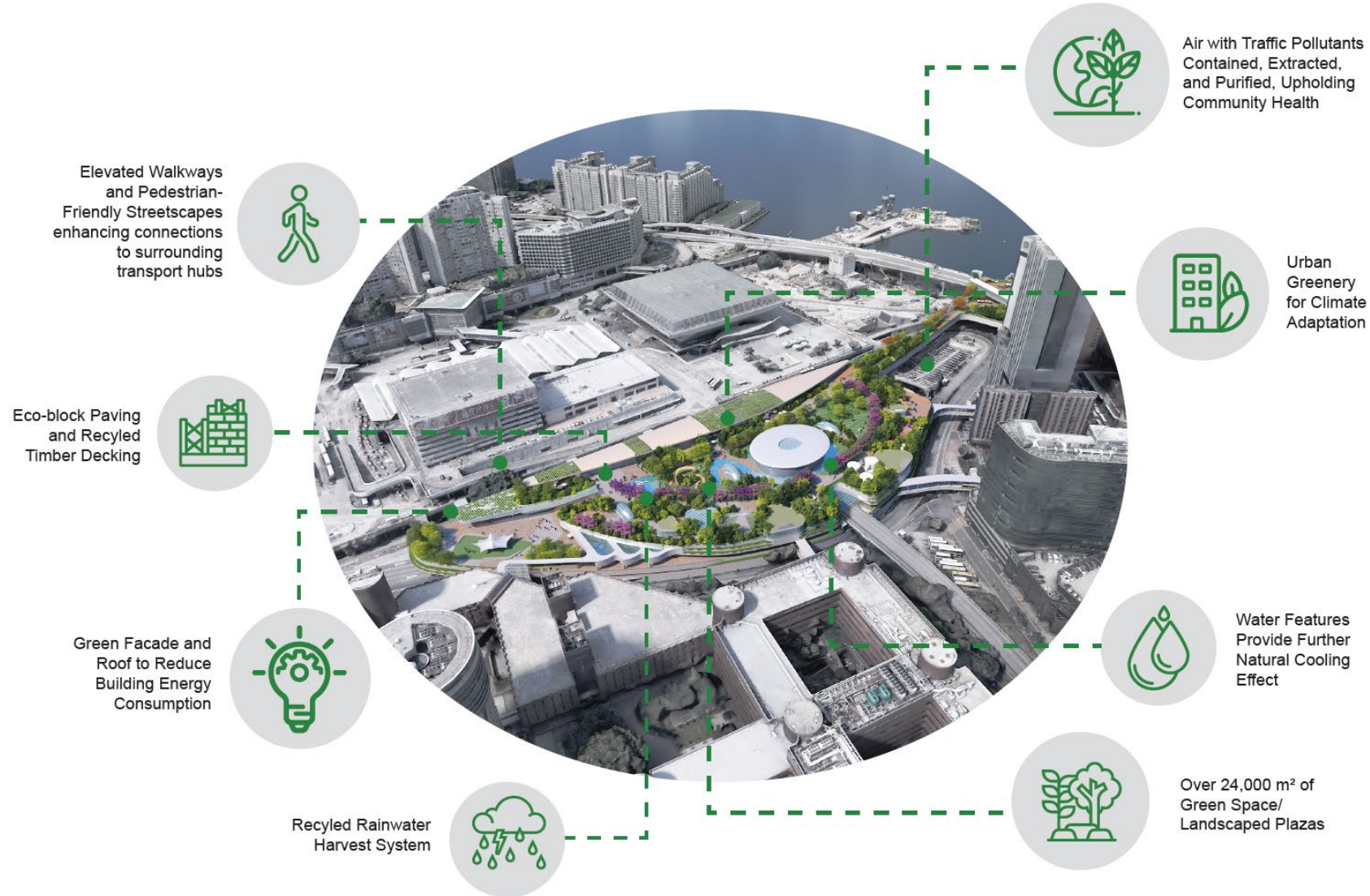
# Principles 3 and 4: Integrated Planning and Sustainable Development

- Culture & Arts – World Class Waterfront





# Principles 3 and 4: Integrated Planning and Sustainable Development





# Principles 5 and 6: Proactive Harbour Enhancement and Vibrant Harbour



Tourist



People Commuting to Work



Student Group



Family Group



Young Professionals



## Day-time Activities



Temporary Event



Family Recreation



Outdoor Training



Young Group Recreation



Pet Walk



Outdoor Meeting



Sightseeing



Local Market



Outdoor Education

## Night-time Activities



Harbour Light Show



Outdoor Cinema



Busking



Festival



Light Art



Food & Beverage



Mini Concert



Night Playground



Ceremony



# Principle 7: Accessible Harbour



## Potential Extension of the Pedestrian Connections and Cycling Network in the Surrounding Area of Green Deck

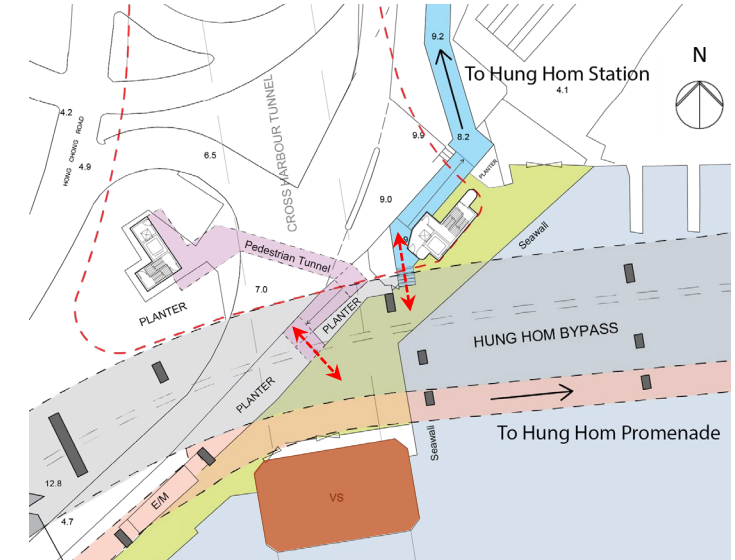
- Residential Precinct
- Commercial Precinct
- Hotels
- Education Facilities
- Museum Cluster
- MTR Stations
- Proposed Green Deck Project Boundary
- Pedestrian Connections
- Potential Cycling Network Extension *(subjected to further policy and infrastructural support)*



# Principle 7: Accessible Harbour

## Proposed Connections between the Islet (GD) and the Tsim Sha Tsui and Hung Hom Promenades:

1. Proposed pedestrian tunnel under Salisbury Road connecting the West Core of the Islet and the Promenade via lifts
2. Proposed East Core of the Islet provide direct access to the Promenade via lifts
3. Existing pedestrian route between the HK Coliseum and the Promenade will be preserved



1. For circulation between harbour front promenade and Green Deck, there is a proposed pedestrian tunnel passing under Salisbury Road to reach the western circulation core of the Islet



2. The existing staircase and ramp will be instead where the proposed eastern circulation core of the Islet will be



3. The circulation between Coliseum and harbour front promenade will be preserved



# Principle 7: Accessible Harbour

## Existing Harbour front





# Principle 7: Accessible Harbour

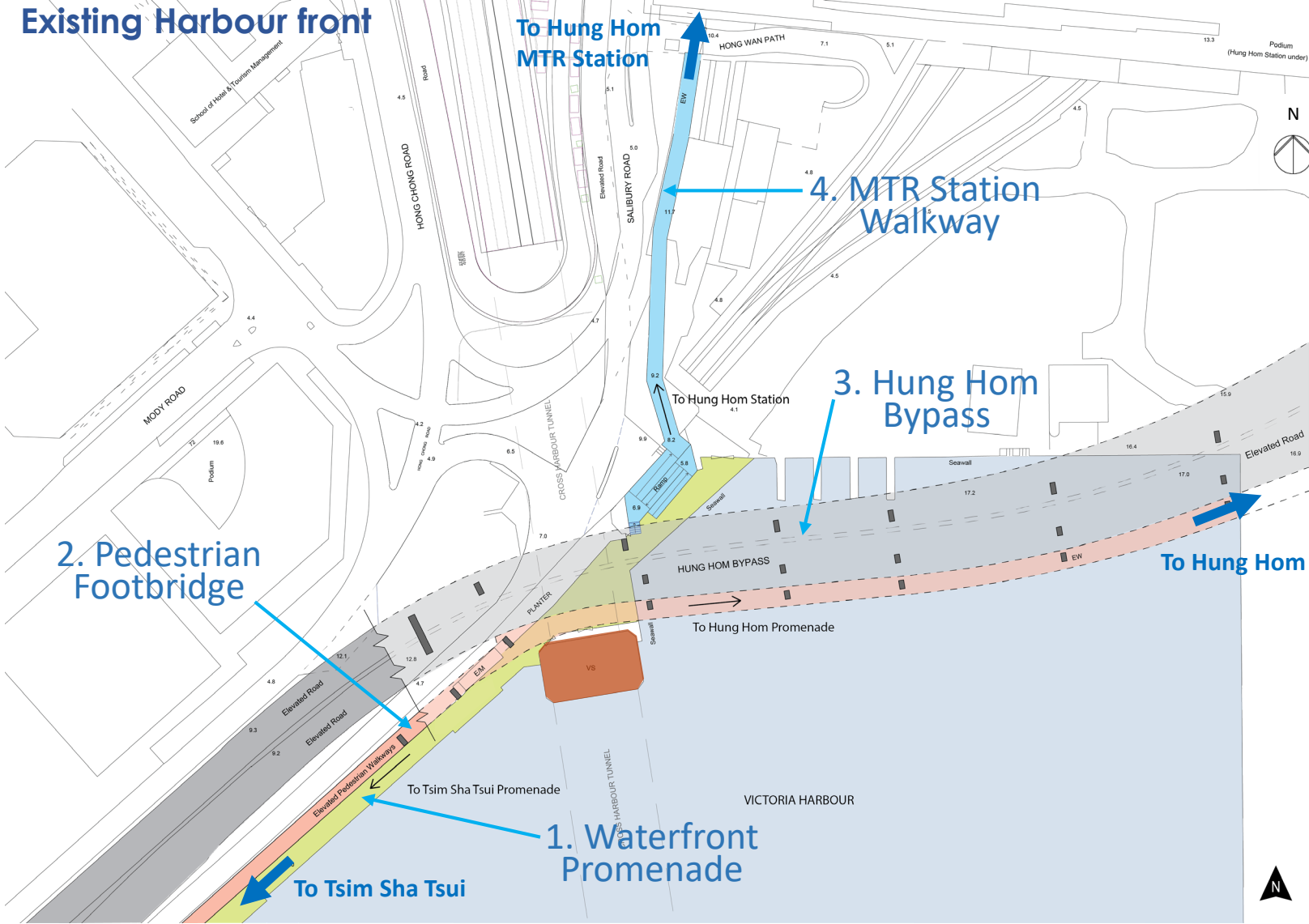
## Existing Harbour front





# Principle 7: Accessible Harbour

Existing Harbour front



Existing circulation between Tsim Sha Tsui harbour front promenade and the Coliseum



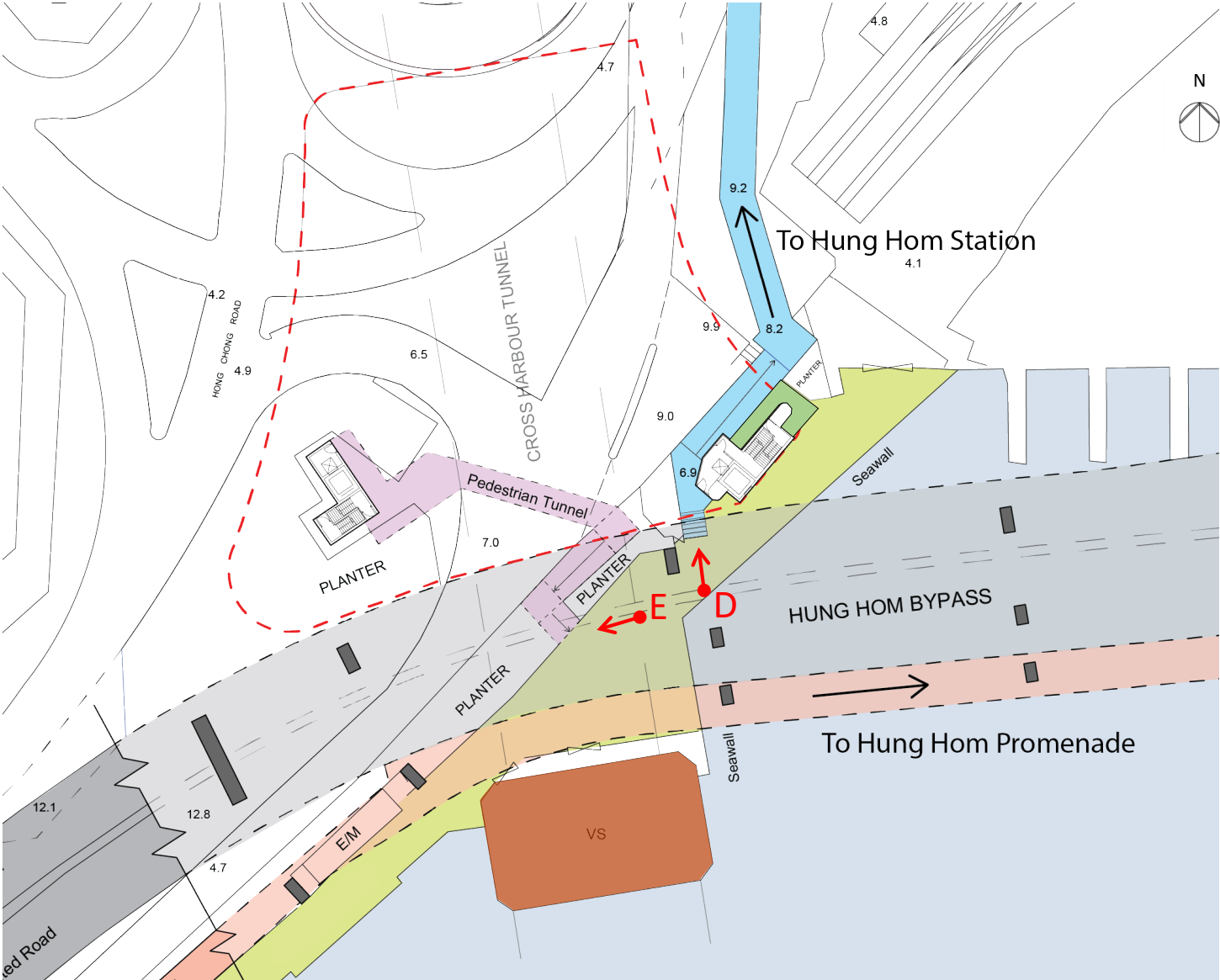
# Principle 7: Accessible Harbour

Existing Harbour front





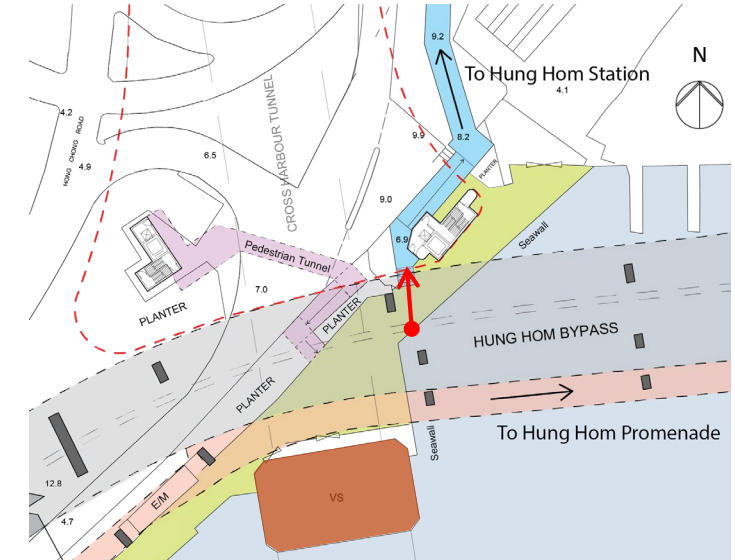
# Principle 7: Accessible Harbour





# Principle 7: Accessible Harbour

## View D

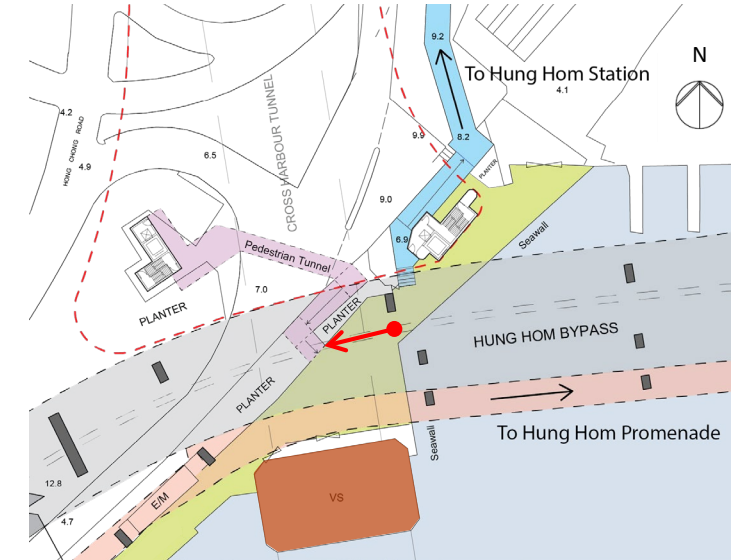


**Photomontage of proposed BFA-compliant lift connecting the East Core of the Islet and the Tsim Sha Tsui and Hung Hom Promenade**



# Principle 7: Accessible Harbour

## View E



**Photomontage of proposed pedestrian tunnel under Salisbury Road connecting the West Core of the Islet and the Tsim Sha Tsui and Hung Hom Promenade**



# Principle 8: Public Enjoyment





## Way Forward

- Members' comments and other comments received on the Green Deck project will be taken into account in further refinement of the proposal in the later stage of the Study.



Thank You



Thank you



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