

PERMOHONAN PELAN INDUK UNTUK CADANGAN PEMBANGUNAN BERAMPUR DAN PERDAGANGAN DENGAN NISBAH PLOT 5:1 DI ATAS TANAH KERAJAAN TEBUSGUNA JELUTONG (TAPAK PELUPUSAN SAMPAH SEDIADA), SEKSYEN 8, BANDAR JELUTONG, PULAU PINANG UNTUK TETUAN PLB ENGINEERING BHD



**TRAFFIC MASTER PLAN STUDY
VERSION01
OCTOBER 2022**

Prepared by



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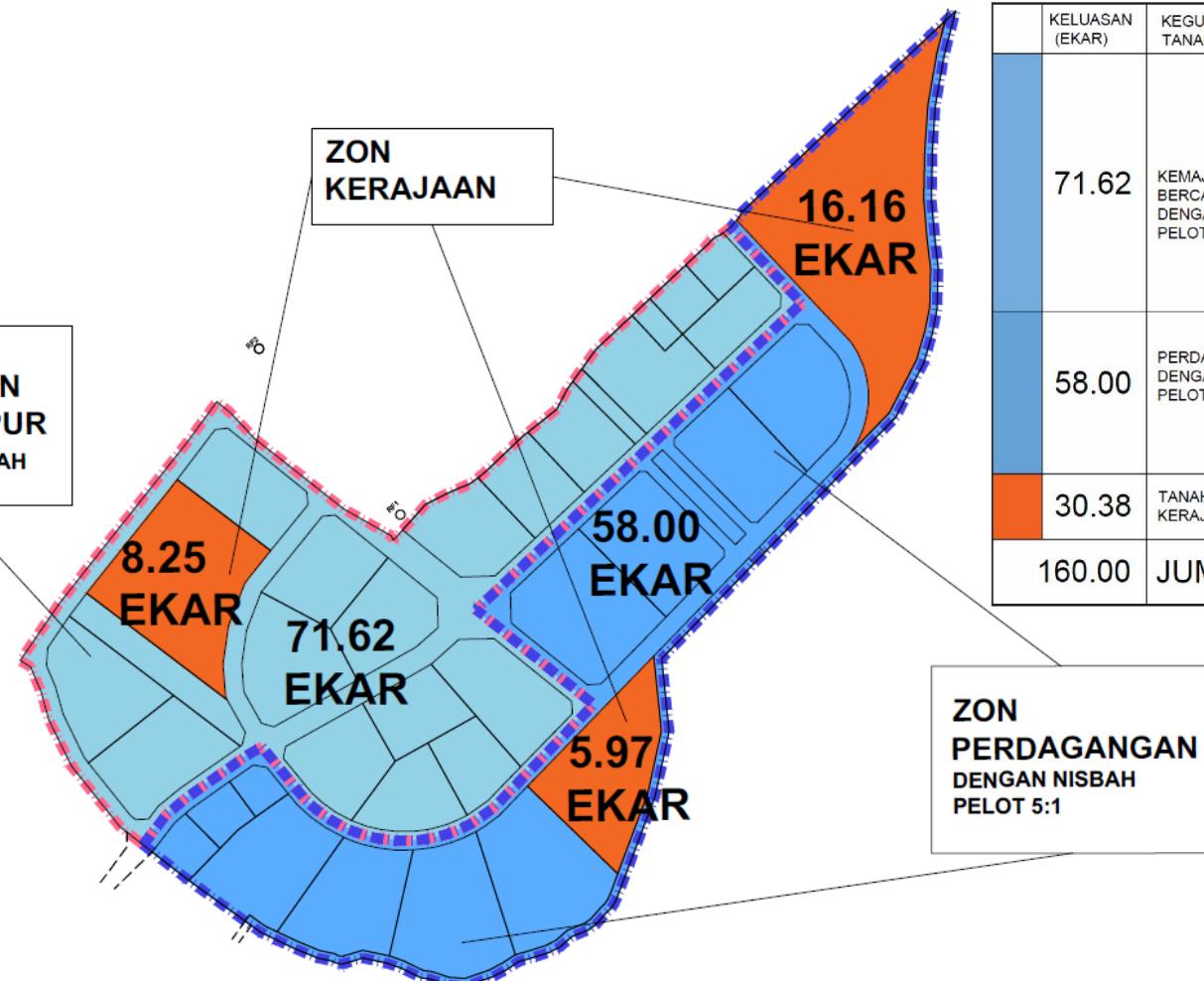
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Overview

- A. Development Framework of the Proposed Development**
- B. Trip generation**
- C. Existing Travel Demands**
- D. Problem Statements**
- E. Penang Transport Master Plan**
- F. Traffic Proposals**
- G. Transit Oriented Development**
- H. Perspectives**

Development Framework of the Overall Master Plan



KELUASAN (EKAR)	KEGUNAAN TANAH	PECAHAN PENGIRAAN TERPERINCI
71.62	KEMAJUAN BERCAMPUR DENGAN NISBAH PELOT = 5:1	(I) KEDIAMAN (NISBAH PELOT 2.8 :1) KETUMPATAN = 2.8×71.62 EKAR X 43,560 K.P. KEDIAMAN MAXIMA = $200.536 \times 43,560$ K.P. = 8,735,348 K.P. = 8,735,348 K.P./ 1.250 KP/UNIT = <u>6,988 UNITS</u>
58.00	PERDAGANGAN DENGAN NISBAH PELOT = 5:1	(II) PERDAGANGAN (NISBAH PELOT 2.2 :1) KELUASAN LANTAI = 2.2×71.62 EKAR X 43,560 K.P. PERDAGANGAN = $157.564 \times 43,560$ K.P. MAXIMA = <u>6,863,488 K.P.</u>
30.38	TANAH KERAJAAN	(II) PERDAGANGAN (NISBAH PELOT 5:1) KELUASAN LANTAI = 5×58 EKAR X 43,560 K.P. PERDAGANGAN = $290 \times 43,560$ K.P. MAXIMA = <u>12,632,400 K.P.</u>
160.00	JUMLAH BESAR	-

Trip Generation

(129.62-acre PLB Land)

	Trip Generation (pcu/hr)			
	AM In	AM Out	PM In	PM Out
Total Trip Generation (1-way)	8,679	13,284	13,494	13,576
Total Trip Generation (2-way)		21,963		27,070
With 40% public transport	5,207	7,970	8,096	8,146
Total (2-way)		13,178		16,242
With 30% internal trips	3,645	5,579	5,668	5,702
Total (2-way)		9,224		11,369

*Remarks:

- i) Numbers are expressed in pcu/hr.
- ii) Numbers are subject to change (land use components, densities and plot ratios).
- iii) Ultimate trip generation (estimation) can only be finalized during planning stage.

Trip Generation

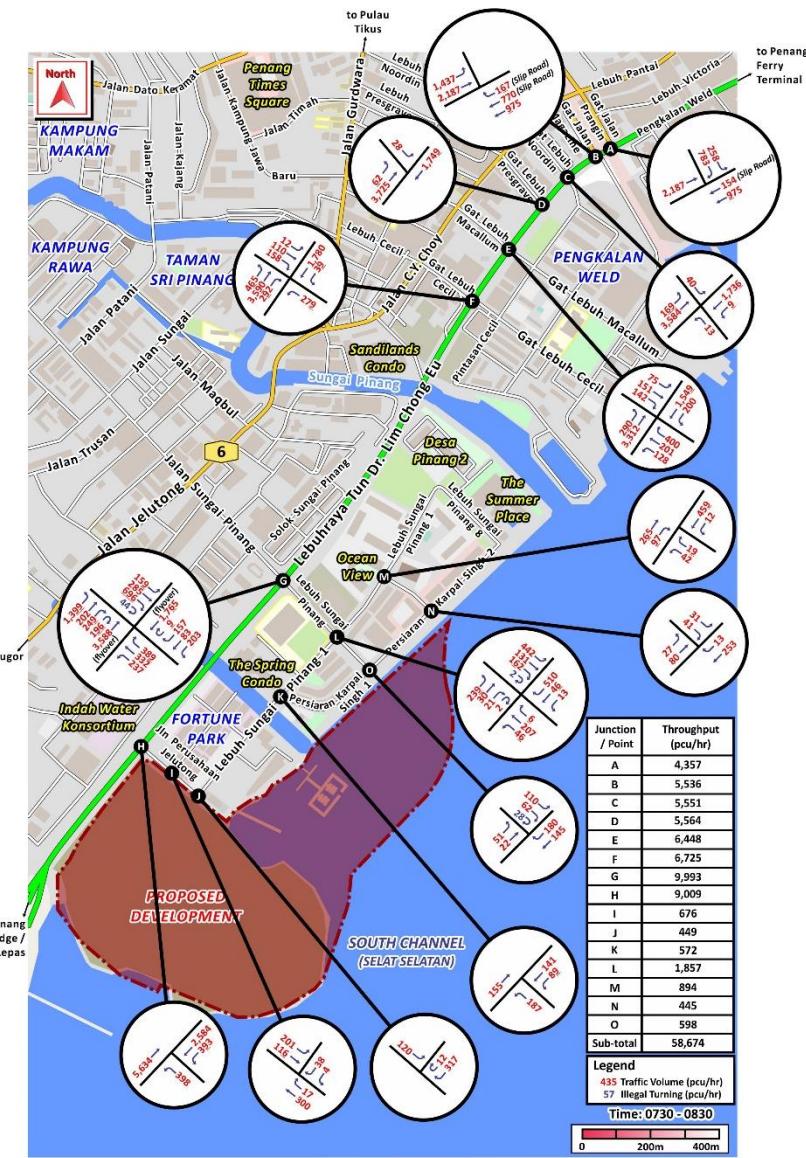
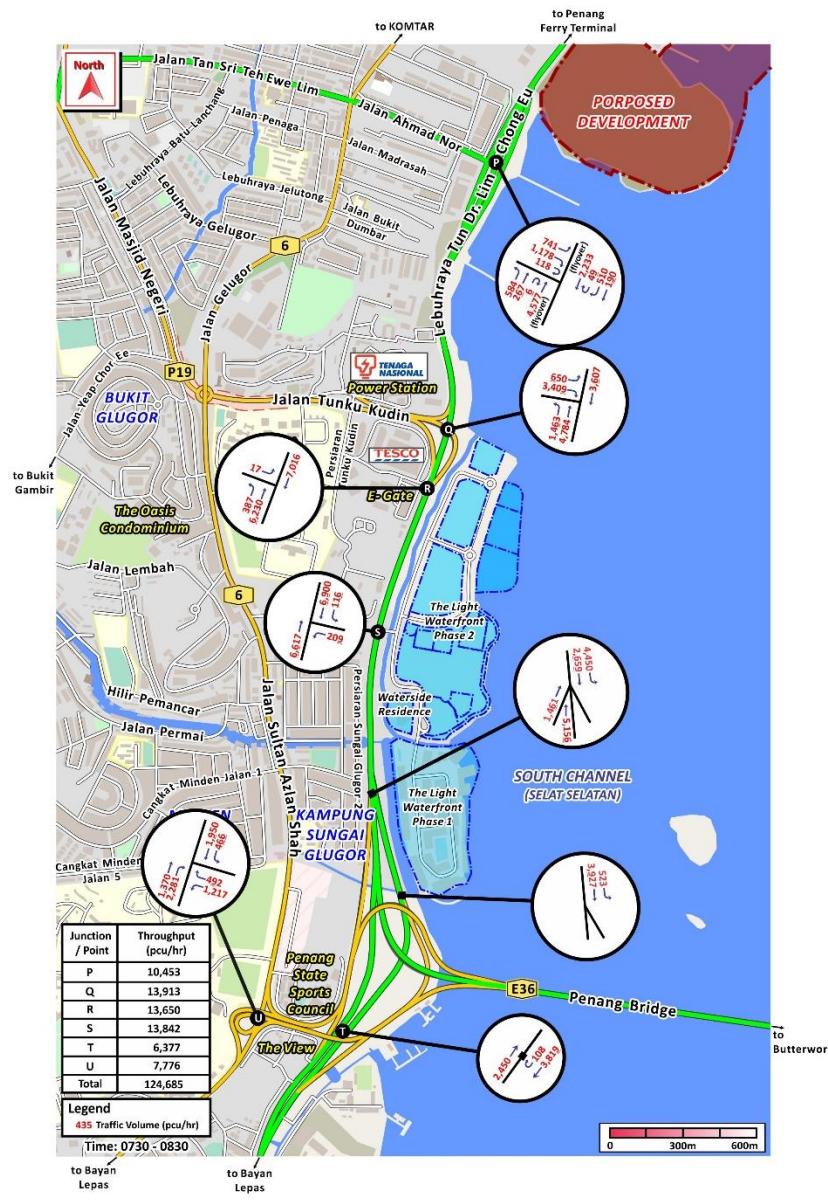
(30.38-acre Government Land)

	Trip Generation (pcu/hr)			
	AM In	AM Out	PM In	PM Out
Total Trip Generation (1-way)	1,209	1,759	1,853	1,889
Total Trip Generation (2-way)		2,968		3,742
With 40% public transport	725	1,055	1,112	1,134
Total (2-way)		1,781		2,245
With 30% internal trips	508	739	778	794
Total (2-way)		1,246		1,572

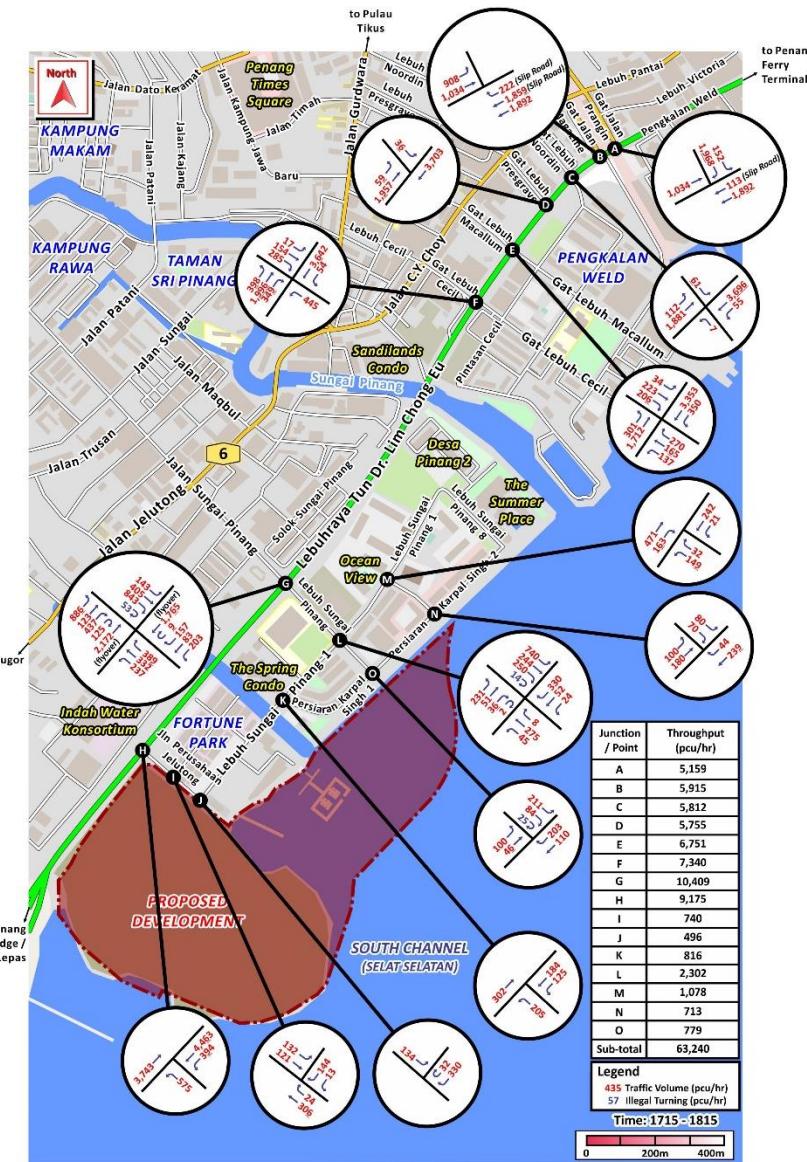
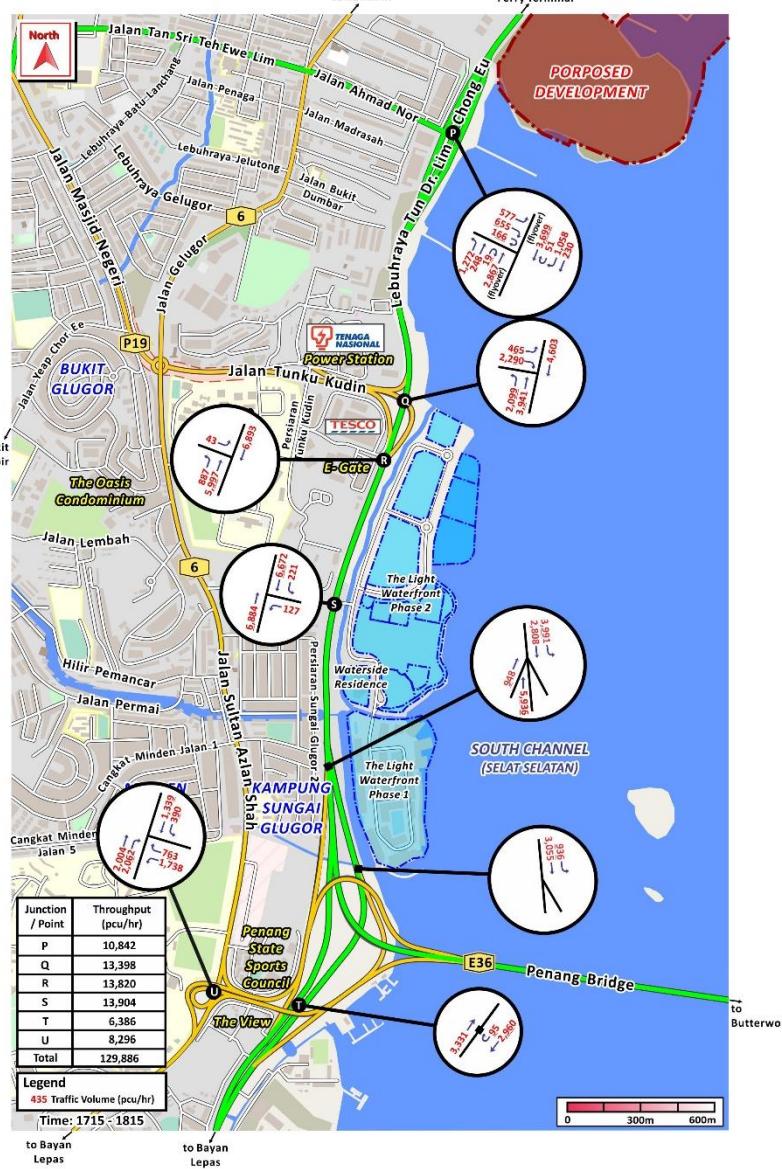
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Recorded Travel Demands during Morning Peak Hour in 2020



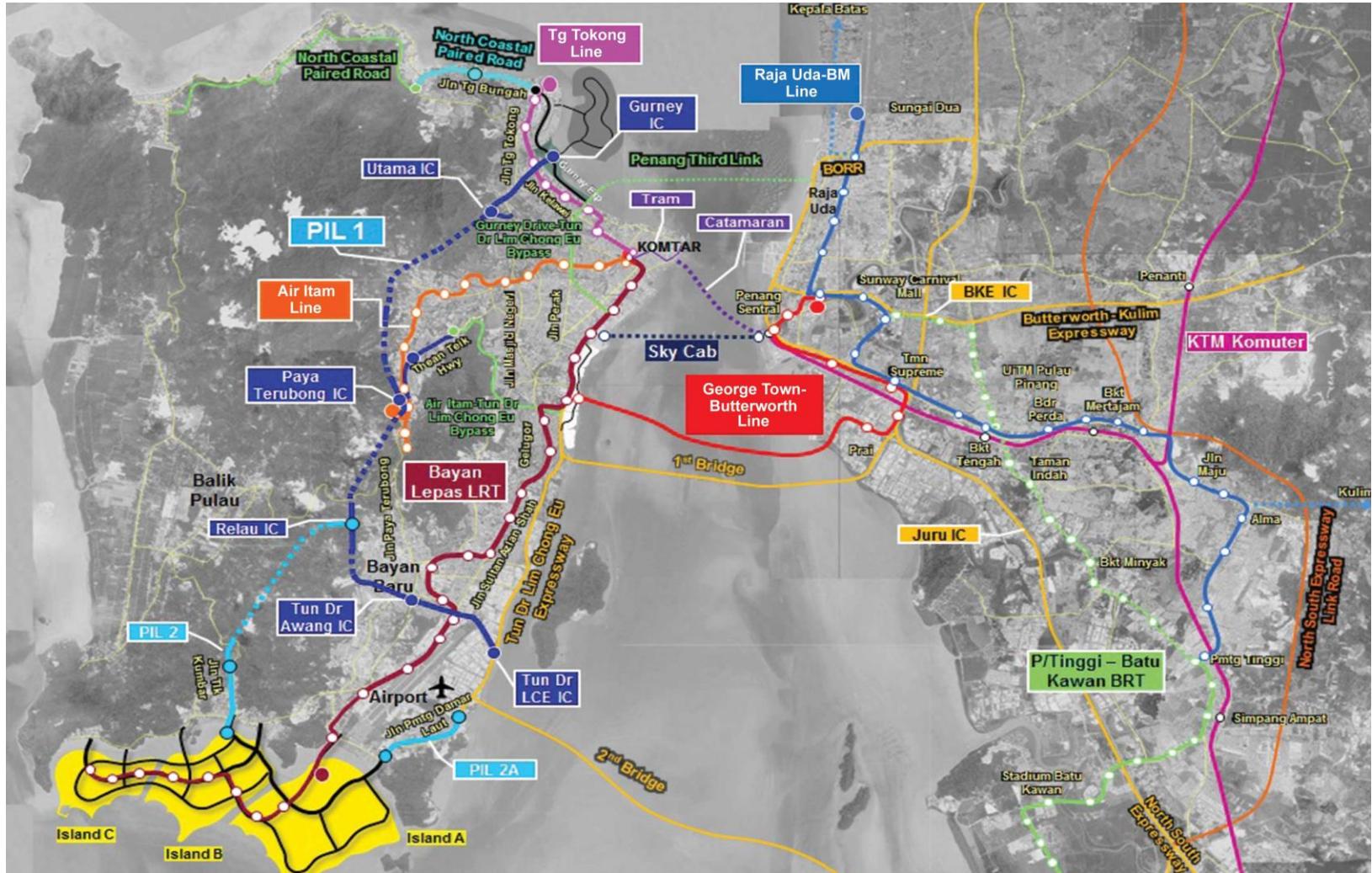
Recorded Travel Demands during Evening Peak Hour in 2020



Problem Statements

- i. Vehicles are moving under forced flow conditions on Lebuhraya Tun Dr. Lim Chong Eu during peak hours. Unfortunately, this expressway can hardly be widened to provide more traffic lanes or upgraded to provide elevated viaduct for through traffic flows.**
- ii. Congestion on the expressway can be overcome if the coastal developments are joined together so as to provide an arterial road paralleled the expressway. In other words, Bandar Sri Pinang, the proposed development and The Light Waterfront development are to be interlinked.**
- iii. Failing to do so will result in more severe congestions on Lebuhraya Tun Dr. Lim Chong Eu as all development traffic will be entirely discharged to this expressway.**

Penang Transport Master Plan



The transportation planning of the proposed development shall be in line with the Penang Transport Master Plan.

Proposed Infrastructure and Traffic Flow System



Projected Travel Demands during Evening Peak Hour in 2040



Projected Travel Demands during Evening Peak Hour in 2040



Projected Travel Demands during Evening Peak Hour in 2040



Projected Travel Demands during Evening Peak Hour in 2040



Important Features In Relation to Traffic and Transportation Planning

- A. The layout plan is well integrated into the LRT system.**
- B. Dedicated public transport lane is planned in the overall project site for**
 - a) immediate city buses (short-term);**
 - b) articulated buses (mid-term); and**
 - c) Trackless tram / autonomous rapid transit (long-term)**
- C. Multi-modal transport hub with cable car and water taxi that link Mainland and other parts of Penang Island;**
- D. Continuous pedestrian walkways;**
- E. Totally no traffic lights and elevated structure or underpass in 160-acre development land (except the connection on Lebuhraya Tun Dr. Lim Chong Eu).**

Important Features In Relation to Traffic and Transportation Planning

- F. Traffic conditions in Bandar Sri Pinang will be improved. There will be no more traffic lights in (approximate) 127-acre Bandar Sri Pinang ultimately.**

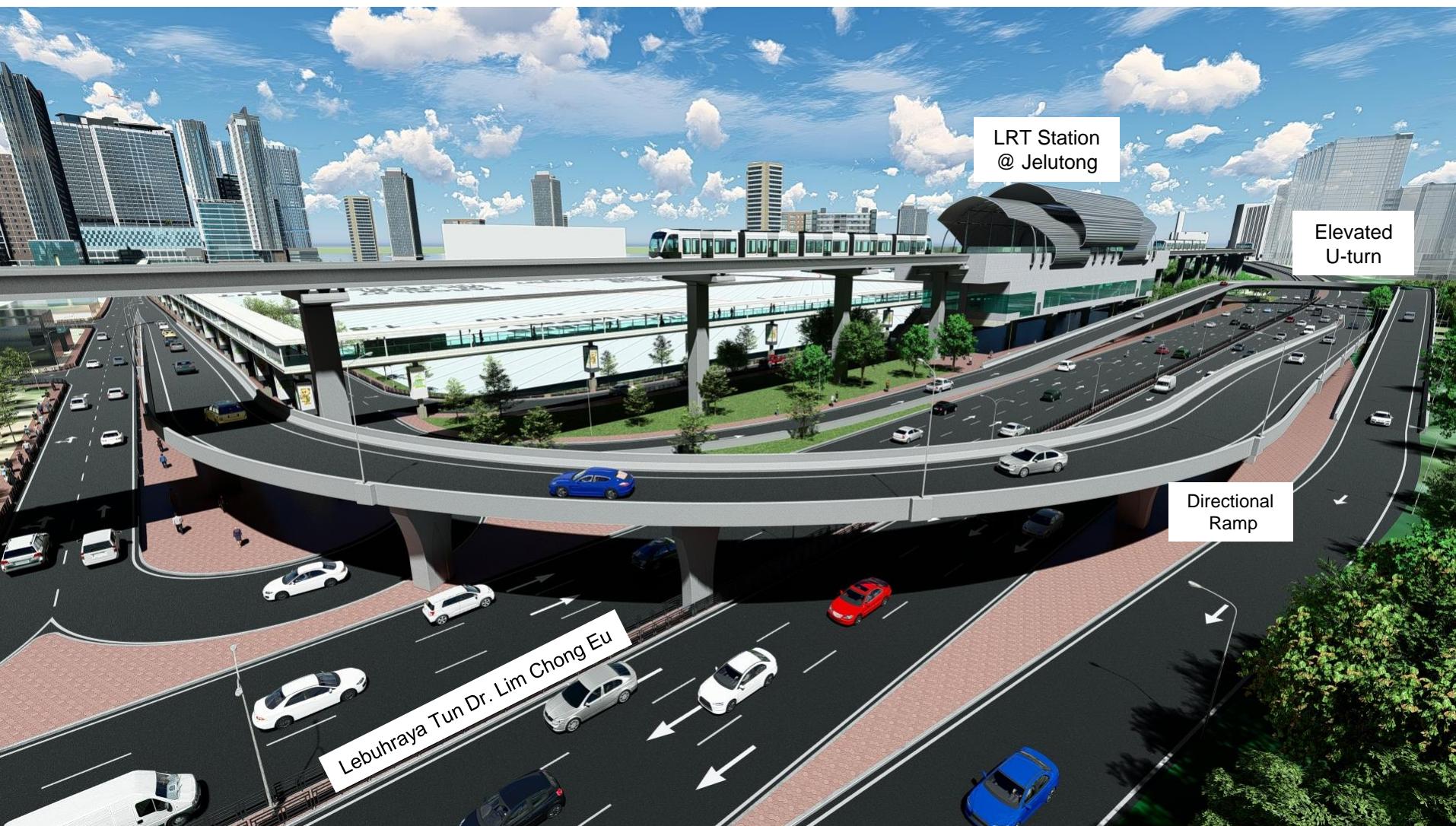
- G. The planning of traffic and transportation system in this project is meant to meet the requirement of Transit Oriented Development. The project will be sustainable from social, economic and environmental perspectives. Different transportation systems can be implemented by stages according to the population and transportation needs.**

Transit Oriented Development

(LRT System)



Transit Oriented Development (LRT System)



Transit Oriented Development (LRT System)



Transit Oriented Development

(Short-Term: Dedicated Public Transport Lane for Buses)



Transit Oriented Development

(Mid-Term: Dedicated Public Transport Lane for Articulated Buses)



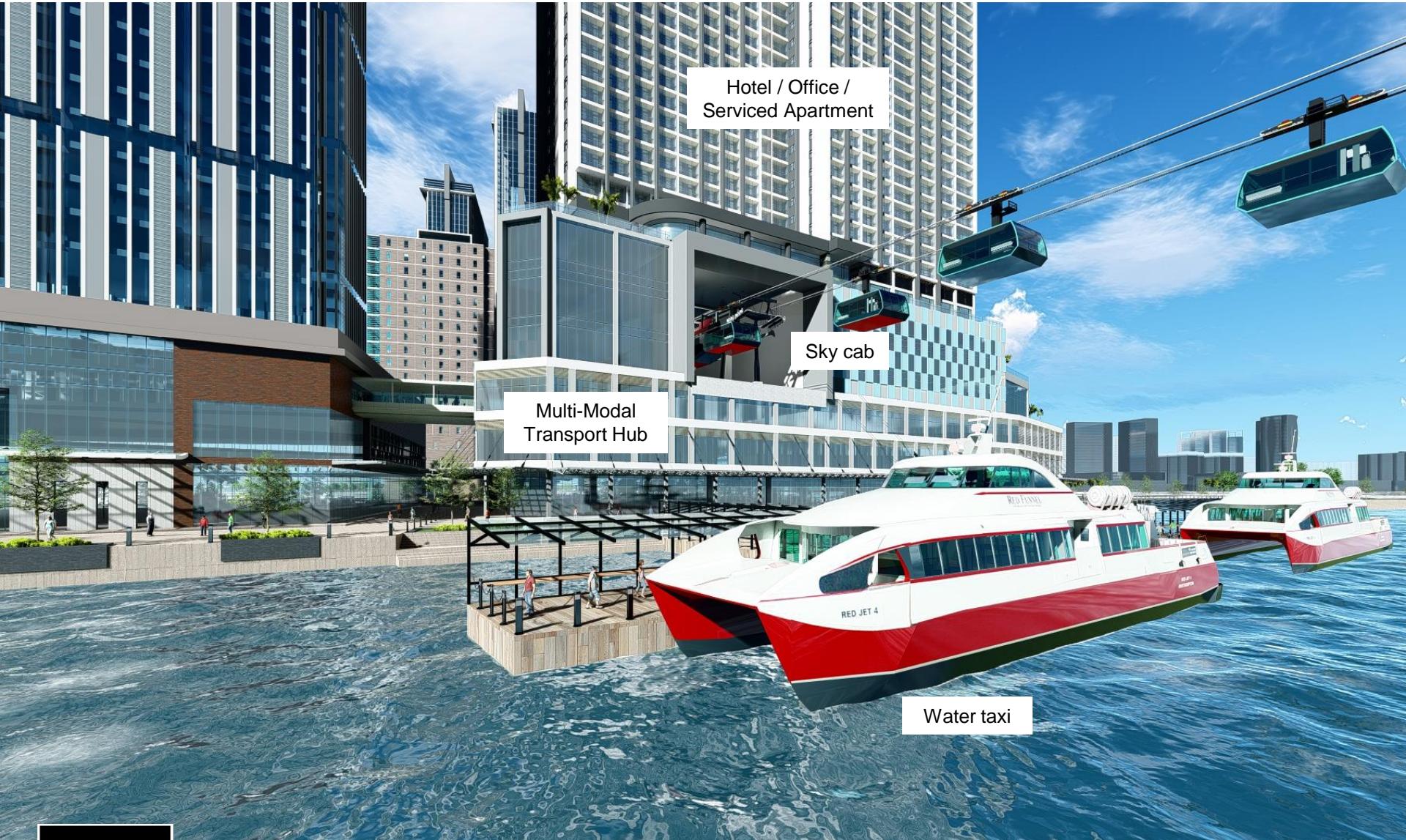
Transit Oriented Development

(Long-Term: Dedicated Public Transport Lane for Tram)



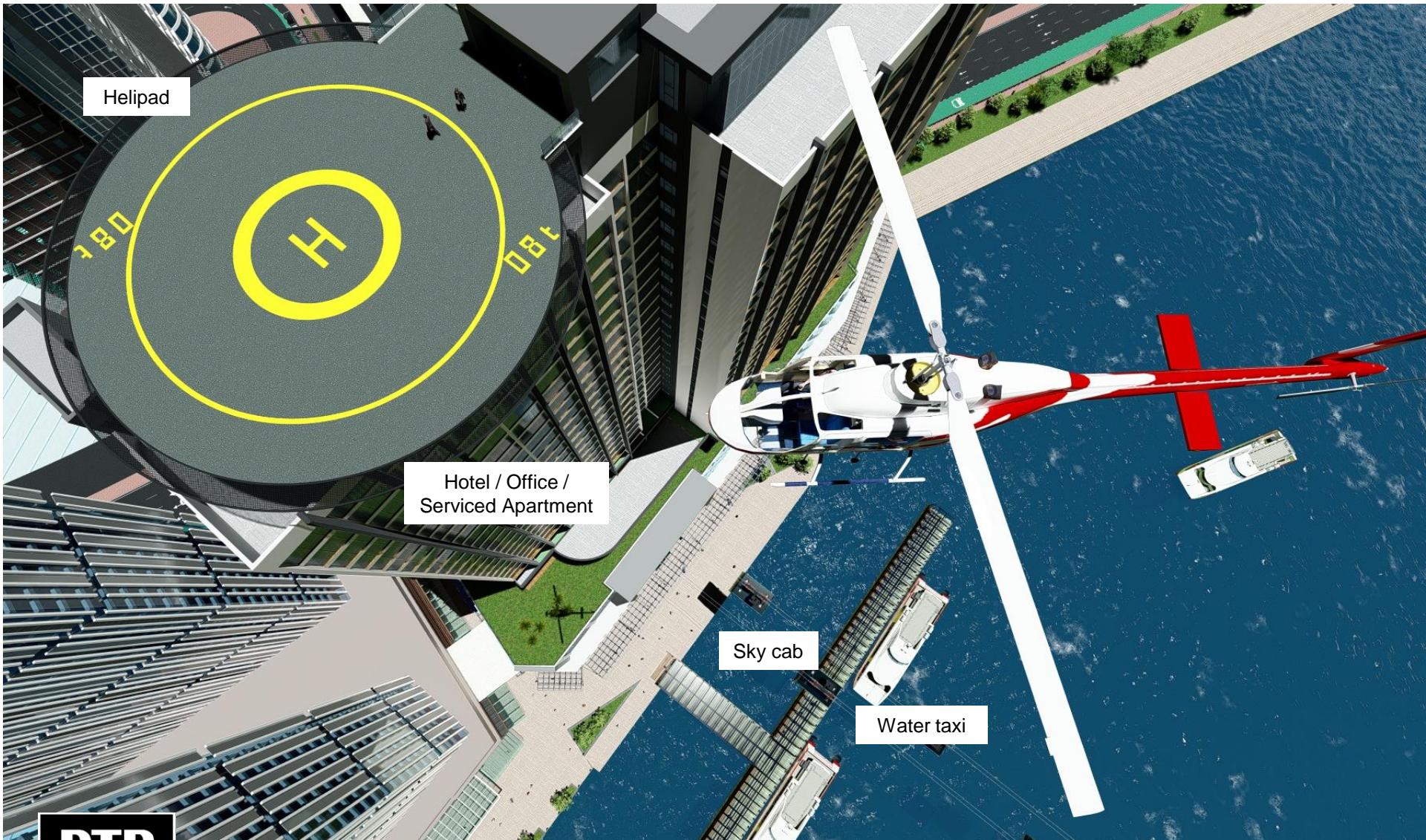
Transit Oriented Development

(Multi-Modal Transport Hub for Land, Sea and Air Transports)



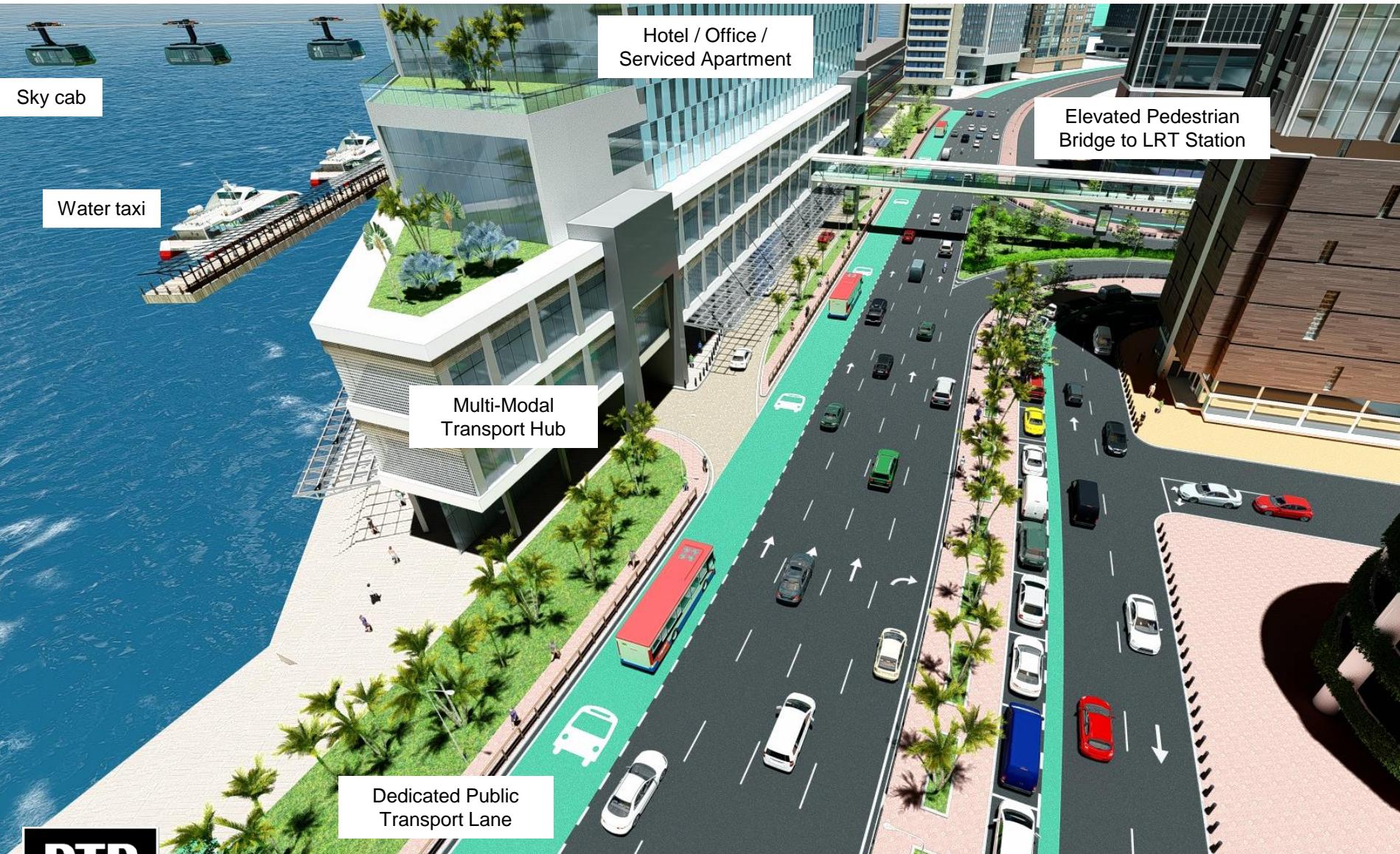
Transit Oriented Development

(Multi-Modal Transport Hub for Land, Sea and Air Transports)



Transit Oriented Development

(Continuous Elevated Pedestrian Bridge Linking All Buildings and Transport Hub / LRT Station)



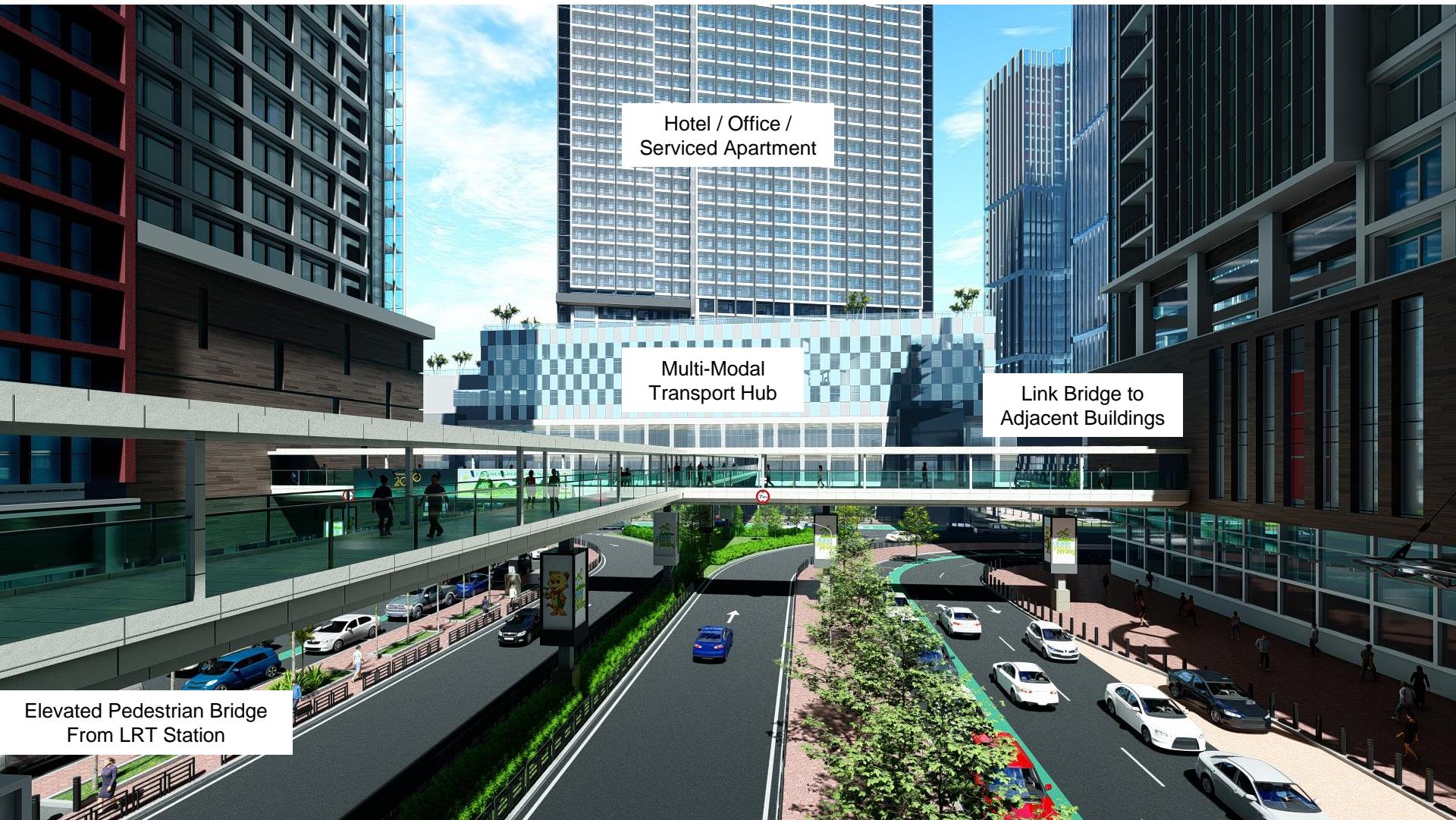
Transit Oriented Development

(Continuous Elevated Pedestrian Bridge Linking All Buildings and Transport Hub / LRT Station)



Transit Oriented Development

(Continuous Elevated Pedestrian Bridge Linking All Buildings and Transport Hub / LRT Station)



Transit Oriented Development

(Continuous Elevated Pedestrian Bridge Linking All Buildings and Transport Hub / LRT Station)



THANK YOU