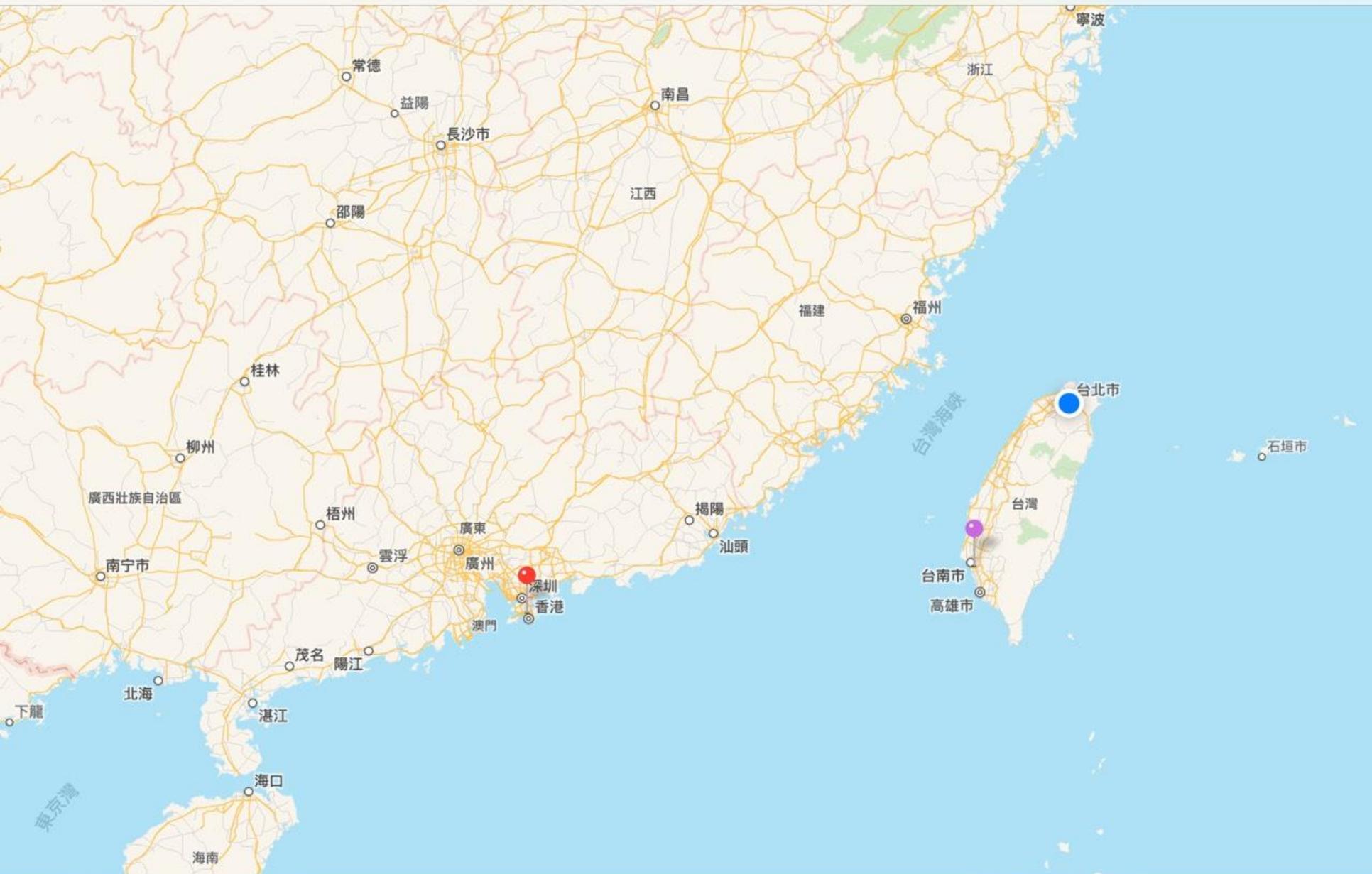
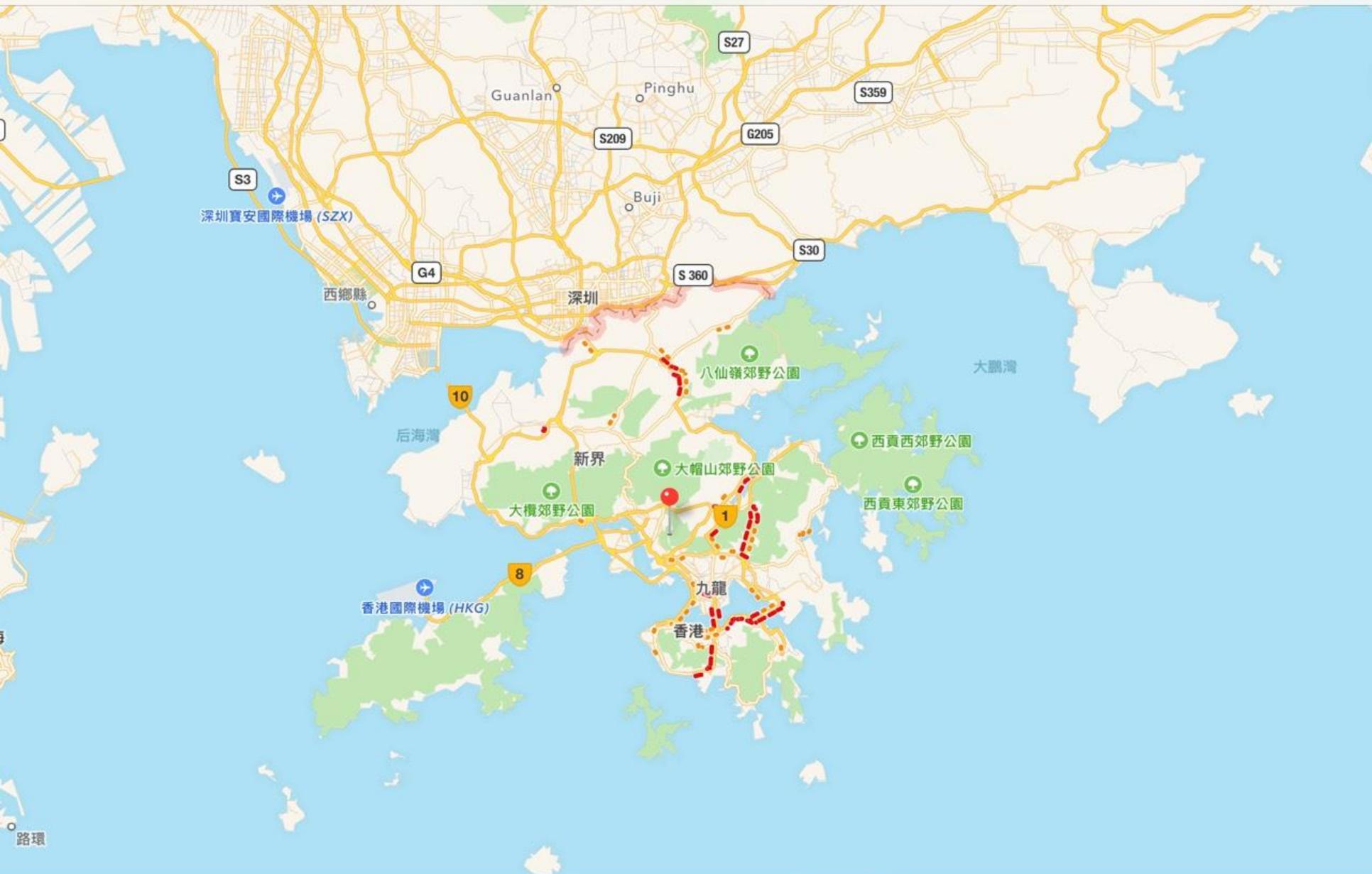


香港鐵路TOD & VC經驗

政府 地鐵公司 (之不動產業務)
地主 投資者的四角關係





MTR CORPORATION

香港鐵路有限公司
物業與永續擴張發展

UNESCAP Regional Expert Group Meeting on Sustainable and Inclusive Transport Development and 2nd Asia BRTS Conference, 29 Sep – 1 Oct 2014, Ahmedabad

Dr. Wing-tat Hung ,Transit Oriented Development and Value Capture—Hong Kong, 香港理工大學

Transit Oriented Development and Value Capture – Hong Kong

Dr. Wing-tat HUNG
Associate Professor

Department of Civil and Environmental Engineering
The Hong Kong Polytechnic University

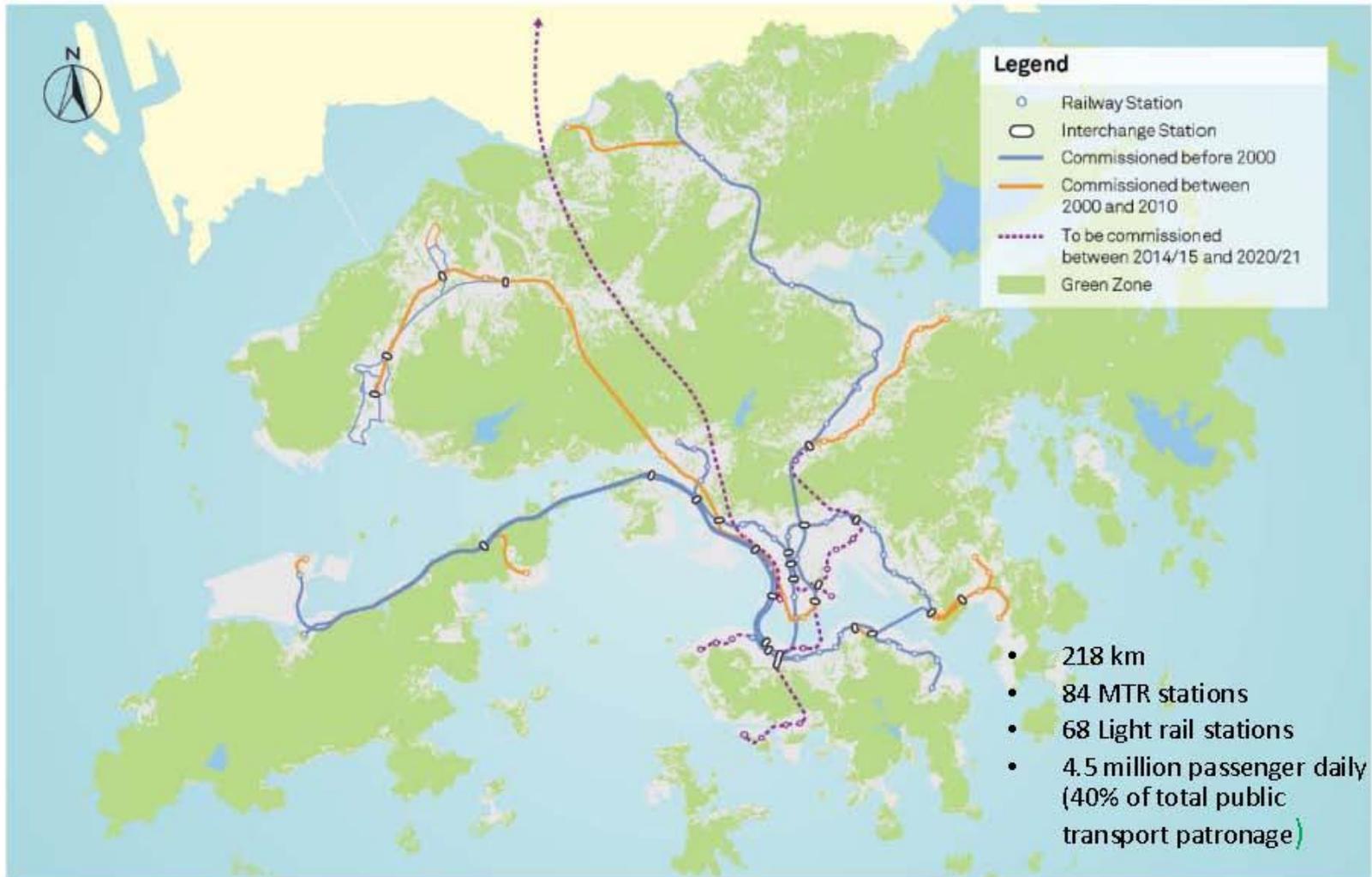
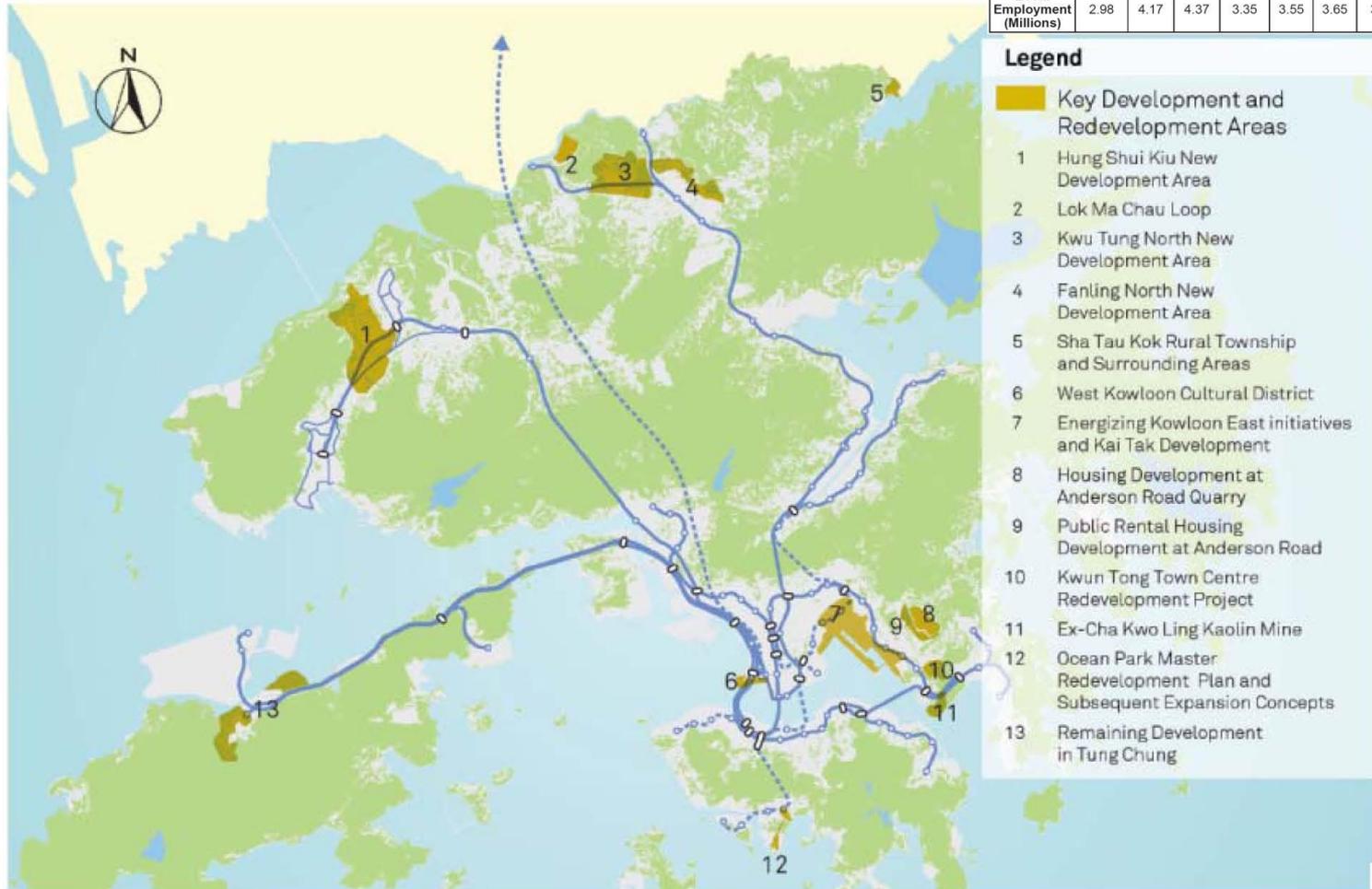


Figure 1: Hong Kong's Railway Network in 2021

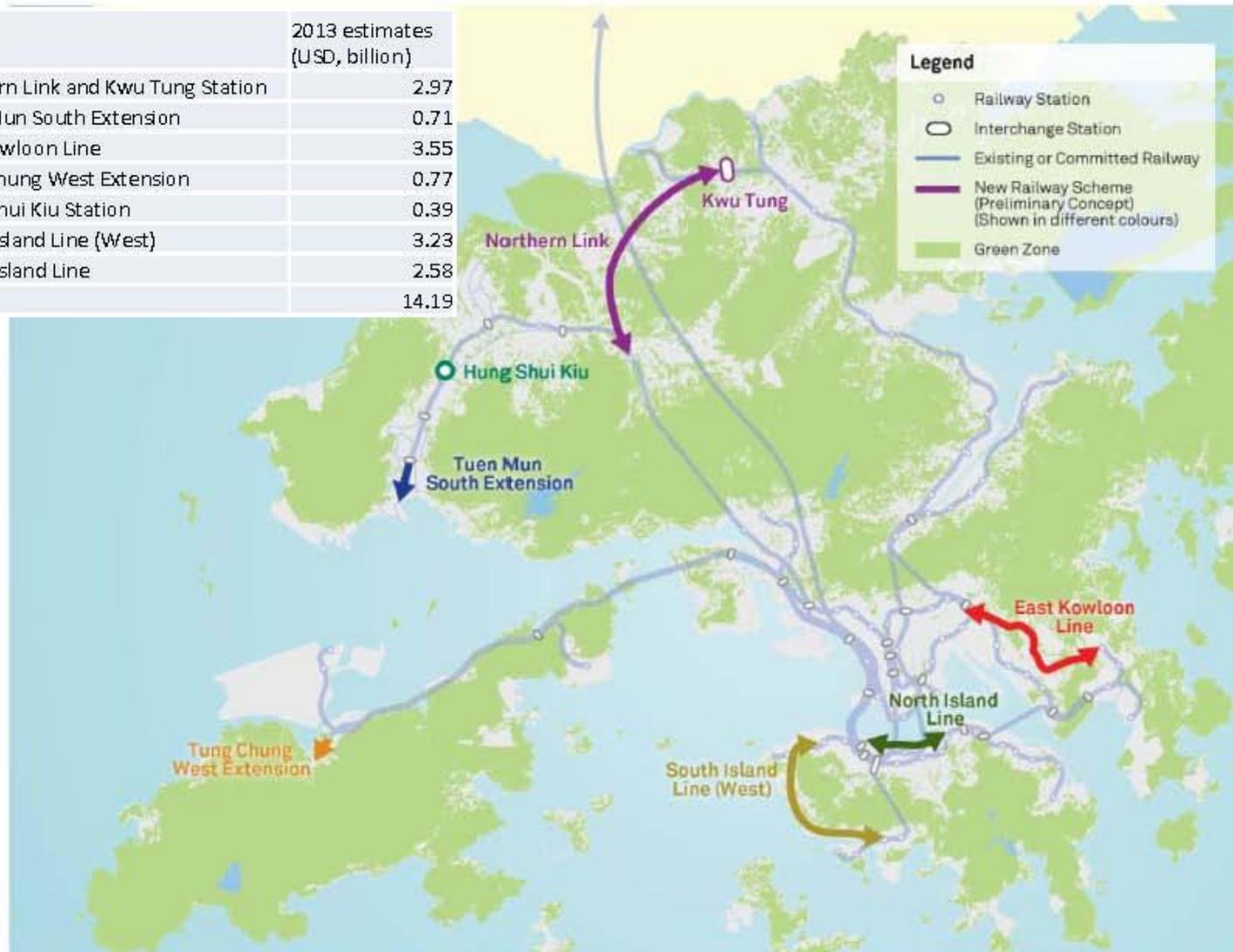
TOD - Railway Development Strategy 2014

	RDS-2000 ¹			RDS-2014 ²			
	Actual	Projected		Actual	Projected	Projected	Projected
Year	1996	2011	2016	2009	2016	2021	2031
Local Population (Millions)	6.21	8.34	8.93	7.00	7.44	7.80	8.46
Local Employment (Millions)	2.98	4.17	4.37	3.35	3.55	3.65	3.70



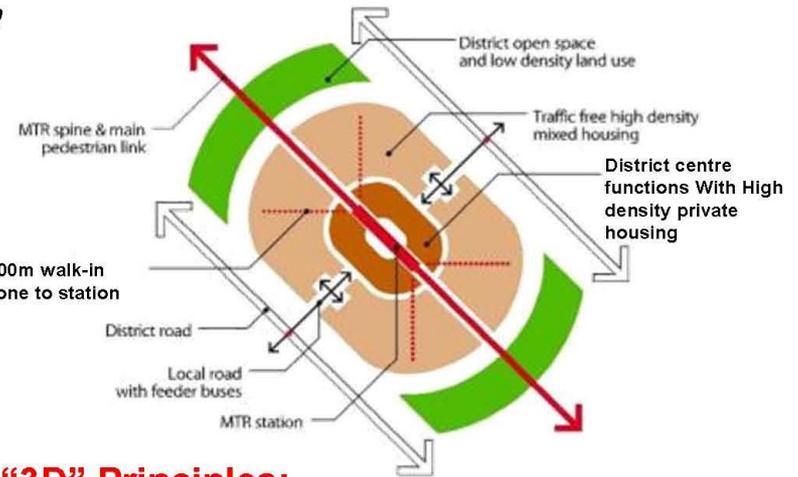
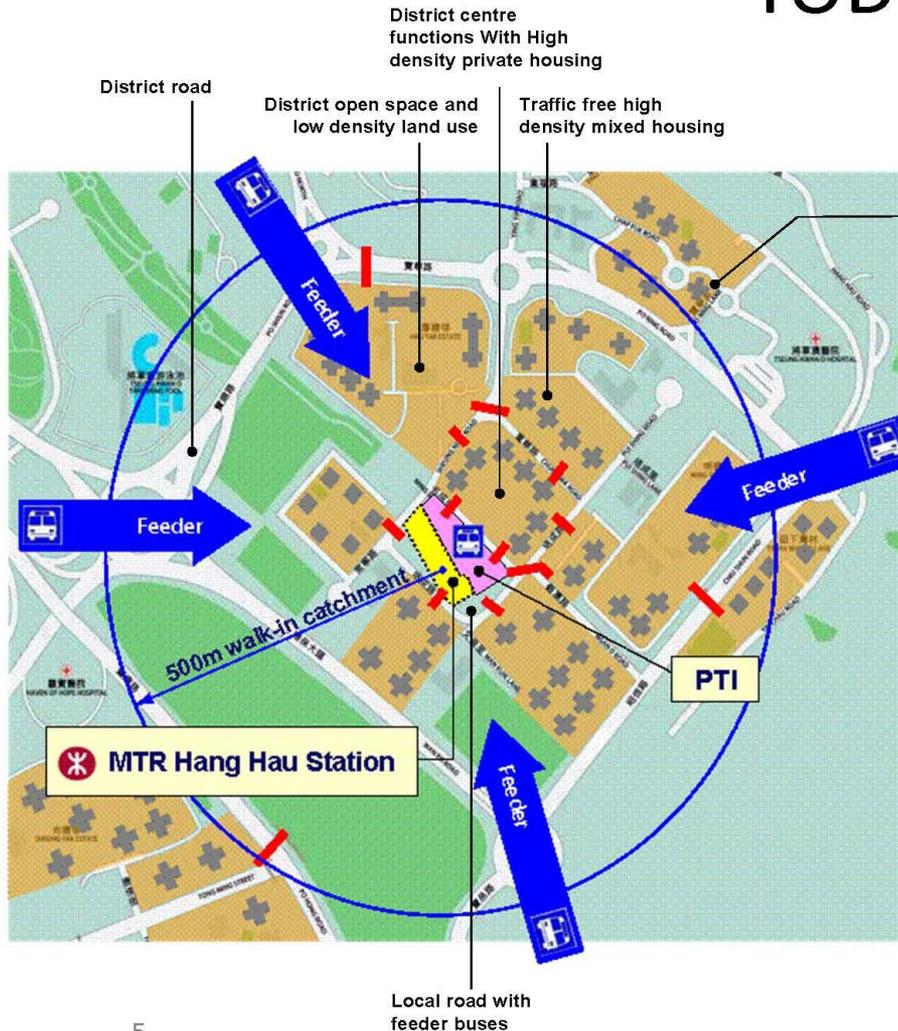
Proposed New Lines/ extensions up to 2031

	2013 estimates (USD, billion)
Northern Link and Kwu Tung Station	2.97
Tuen Mun South Extension	0.71
East Kowloon Line	3.55
Tung Chung West Extension	0.77
Hung Shui Kiu Station	0.39
South Island Line (West)	3.23
North Island Line	2.58
TOTAL	14.19



TOD作法

Transit Oriented Developments “TOD”



“3D” Principles:

- **High Development Density**
Intensive and efficient land use within the station walk-in catchment area
- **Land Use Diversity**
Enhance the life and vibrancy of the community
- **High-Quality Community Design**
Seamless connection and interchange, segregation of pedestrian and vehicular traffic, greening environment

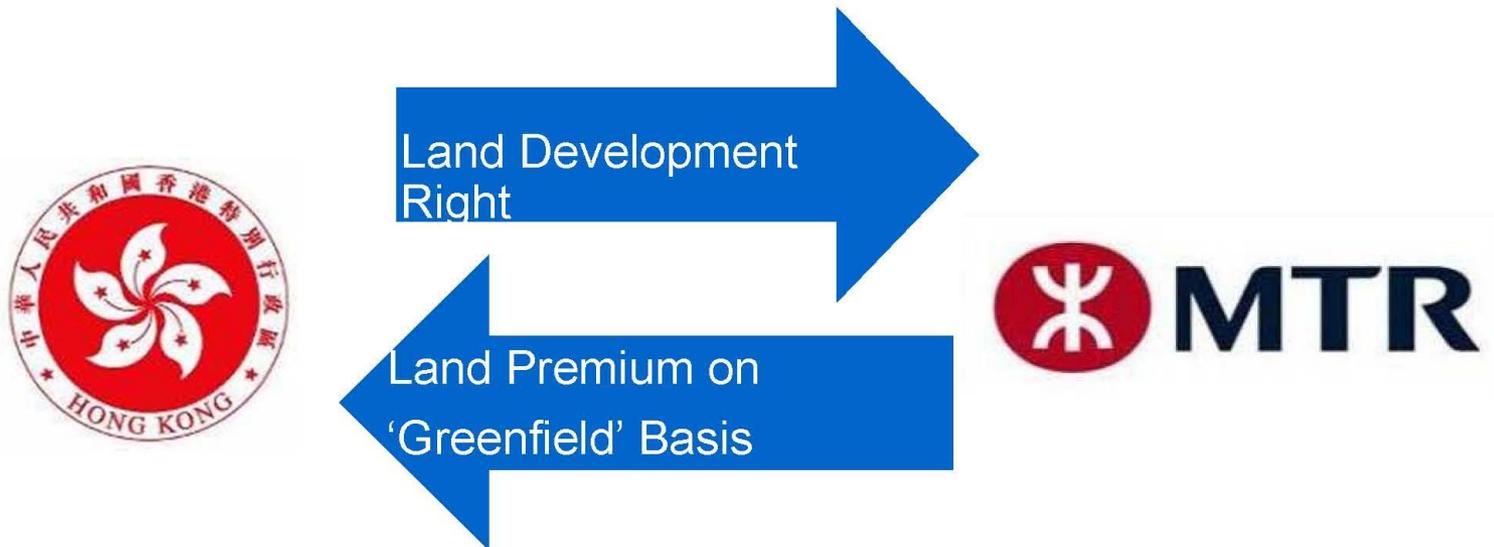
無縫運輸
SEAMLESS
TRANSPORTATION

“Seamless”



政府與地鐵公司的關係 給(MTR)土地發展權 交(HK G)土地額外費用

Unique “Rail + Property” Business Model



- Builds railway together with property as integrated development
- Value capture from property for financing the construction and running of a new railway line

香港有 獨特的 鐵路與不動產 財務模式 (Railway Plus Property Development Financing Model)



Land Development
Right

Land Premium on
'Greenfield' Basis



- ◎興建不動產與興建鐵道互相緊密契合的整體商業發展模型—政府給地，港鐵公司給鄉野地權利金。
- ◎而舉凡從不動產獲取的價值，則將用來支持進行新路線興建與新路線營運的花費。

RAILWAY PLUS PROPERTY DEVELOPMENT FINANCING MODEL

Mass Transit Railway Corporation Ordinance passed by the Legislative Council in May 1975

- An independent corporation working on prudent commercial principles
- Granting of development rights on land plots of stations
- Ensure seamless design of stations to facilitate riderships
- Property sales and rental profits covers capital investments of the railway lines
- Fare income covers the operating costs



RAILWAY PLUS PROPERTY DEVELOPMENT FINANCING MODEL

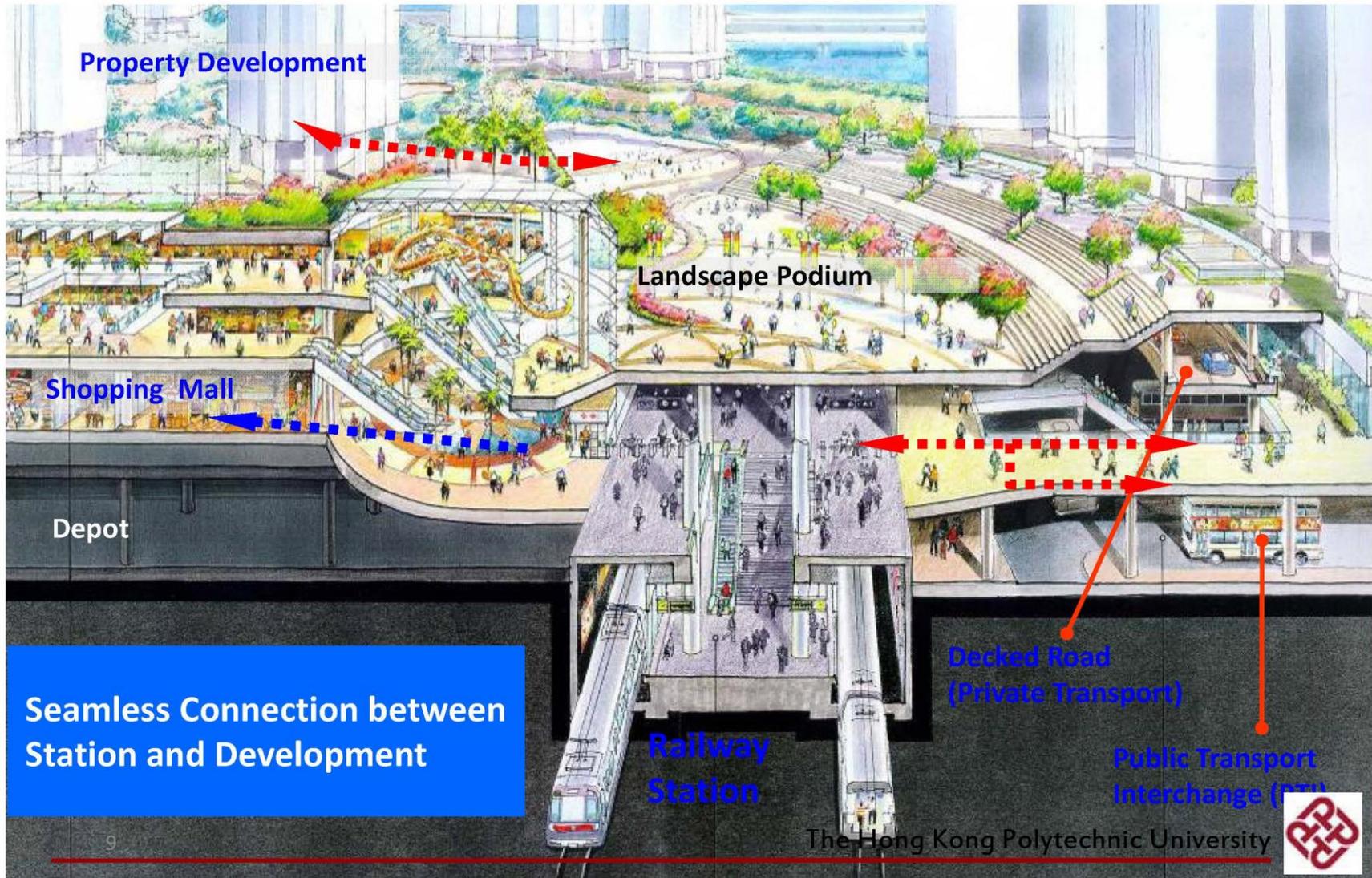
香港鐵路公司 獨特的 鐵路與不動產 財務模式

1975年5月香港立法局授權香港鐵路公司

1. 授權鐵路公司依下述財務原則運轉。
2. 政府將場站上下發展權授予香港鐵路公司
3. 設計方面，須確保車站在轉乘與使用公共或商業設施皆能夠具有無縫運輸的功能
4. 不動產的出租與出售的利得，則用來投資興建鐵路路線的支出。
5. 至於車錢的收入(Fare Income)則用來支付營運成本(Operation Cost)。

設計方面，須確保車站在轉乘與使用公共或商業設施皆能夠具有無縫運輸的功能

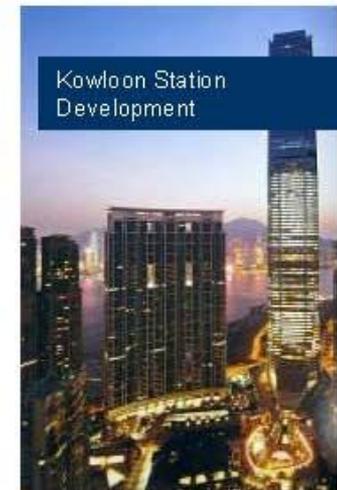
Rail + Property (R+P) Design Concept



How Does the R+P Model Work?

- Conduct planning and development review for new rail extension and agree with Government amount of property development rights
- Land premium is negotiated with Government on “greenfield basis”*, prior to tender being offered to developers
- Competitive tender of property packages to developers
- MTR contributes property rights, oversees the design and construction
- Developers normally pay land premium and development costs
- Profit sharing with MTR
 - ◆ *Percentage of profits*
 - ◆ *Assets in kind*

*Greenfield basis = market value ignoring the presence of the railway

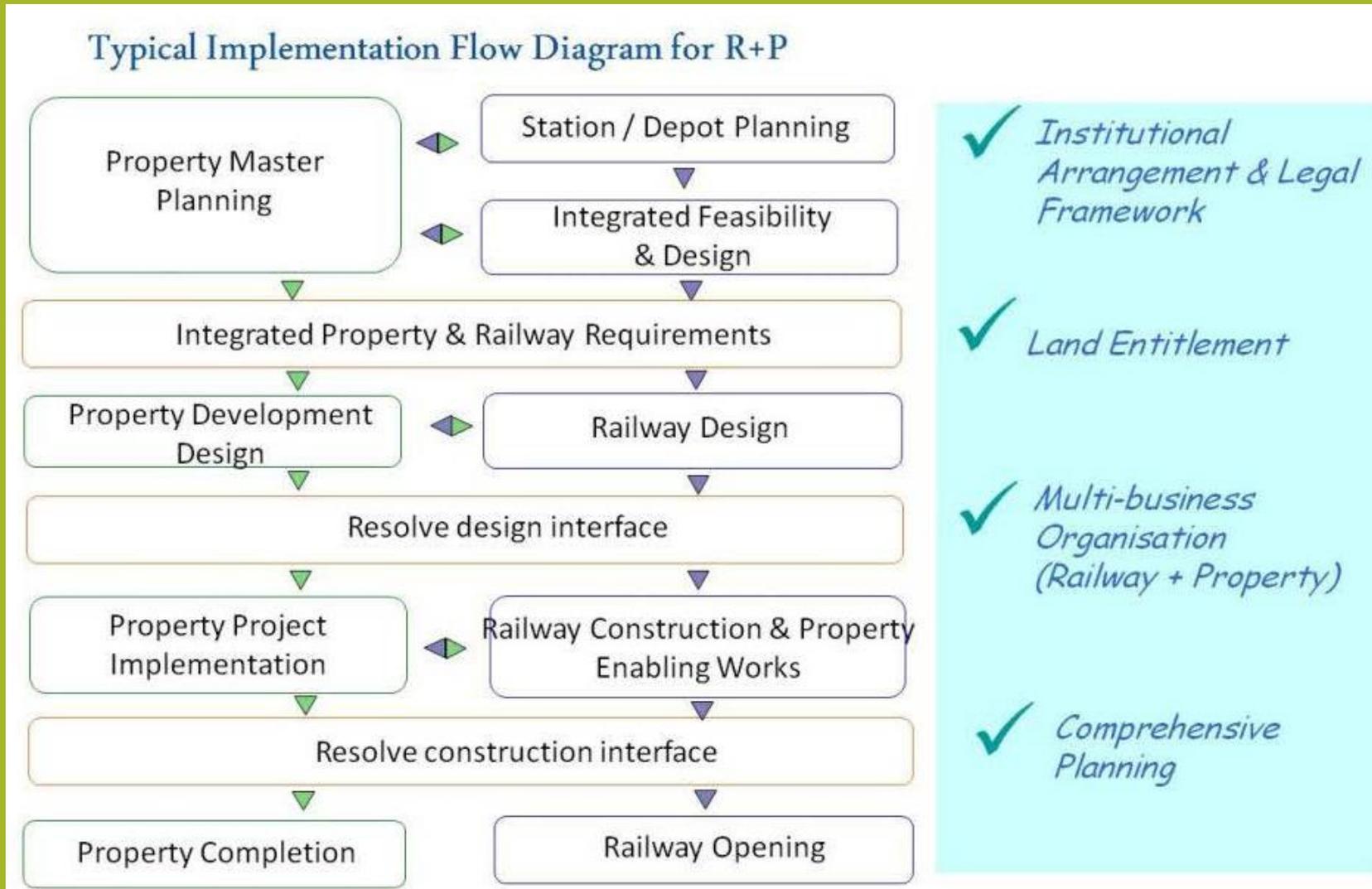


香港鐵路公司 獨特的 鐵路與不動產 財務 模式 是如何進行呢?

1. 進行某條新路線之初步規劃，並估算出需給鐵路公司多少甚麼性質的發展權
2. 至於地鐵公司跟政府拿到土地的費用，乃以Greenfield Basis(乃指 沒鐵路之前的地價)進行，而給投資者的土地價格則是高於Greenfield Basis(乃指 沒鐵路之前的地價)進行。
3. 選擇投資者乃透過競標程序產生。
4. 地鐵公司提供發展權，並監督投資者的設計與興建。
5. 投資者負擔土地權利金與開發費用。
6. 地鐵公司與投資者的利益分享部分:利潤的某百分比，實物資產的分享。



香港鐵路公司 獨特的 鐵路與不動產 財務模式 規劃過程



圖出處:Dr. Wing-tat Hung,

Transit Oriented Development and Value Capture—Hong Kong, 香港理工大學,201`

香港鐵路公司 獨特的 鐵路與不動產 財務模式 規劃過程

不動產的主要計畫 車站機廠規劃 整合性設施計畫

整合不動產與場站設施的要求準則

不動產發展計畫 鐵道設計

設計介面的解決

不動產計畫的執行與完成、鐵道施工與不動產的協作

施工界面的解決

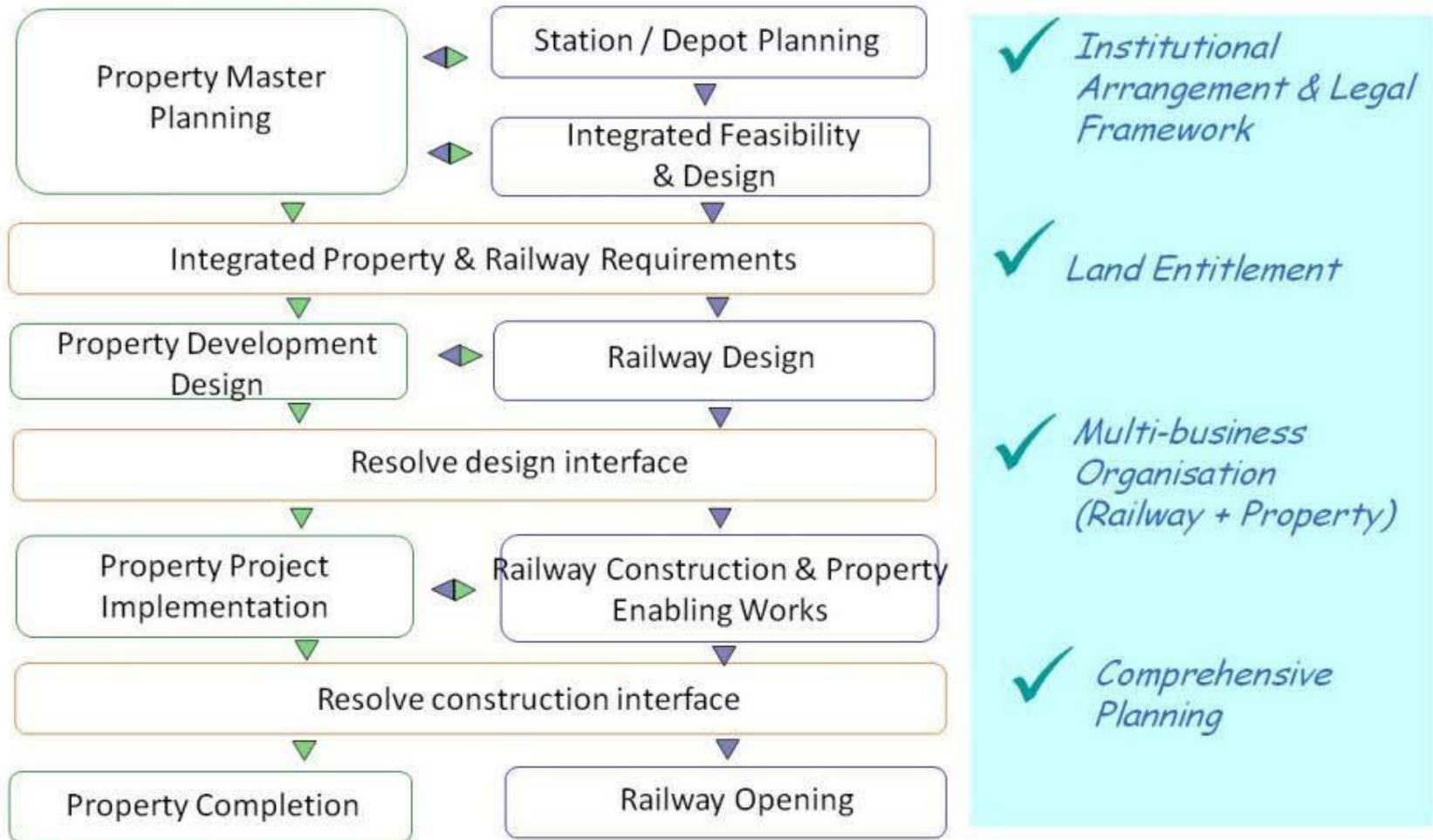
不動產完成 鐵道完成

整合作業包括 機構的整合 土地權利確定 多種行業的
整合(不動產，鐵道) ，全盤綜合計畫

圖出處:Dr. Wing-tat Hung,

Transit Oriented Development and Value Capture—Hong Kong, 香港理工大學,2011

Typical Implementation Flow Diagram for R+P



香港鐵路公司 獨特的 鐵路與不動產財務模式 的成果

“Rail + Property (R+P)” Developments by MTR

- 43 property projects above stations with total GFA of 13 million m²



Tsing Yi



Kowloon Station



Hong Kong Station



Lohas Park



Tseung Kwan O Station



Funding arrangement of railway development in Hong Kong

Year of Completion	Rail Link	Length (Km)	Project Cost (HK\$ in billion)	Funding Arrangement
1910	East Rail	13.8	34.0	Entirely funded and owned by Government
1979	Kwun Tong Line	15.6	5.8	Funded by Government equity injection to MTRC and commercial borrowing guaranteed by Government
1982	Tsuen Wan Line	10.5	4.1	Entirely funded by commercial borrowing arranged by MTRC, partially guaranteed by Government
1985	Island Line	12.5	11.0	Funded by Government equity injection to MTRC, profits from property sales and commercial borrowing guaranteed mainly by Government
1988	Light Rail Transit	36.2	1.1	Funding arranged by KCRC
1998	Tung Chung Line Airport Express	35.3	35.1	HK\$23.7 Bn Government equity injection and HK\$11.4 Bn commercial borrowing arranged by MTRC
2002	Tsuen Kwan O Extension	12.5	30.5	Funded by property sales and commercial borrowing by MTRC
2003	West Rail	30.5	46.4	50% funded by Government and 50% by KCRC commercial loan
2004	Mo On Shan Link & TST extension	11.4 1.1	16.3	HK\$8.5 Bn Government equity injection and HK\$7.8 Bn KCRC borrowing; estimate HK\$4.3 profits from property development
2005	Penny's Bay Rail Link (Disney Resort Line)	3.5	2.0	Government waived dividend of HK\$0.8 Billion; shortfall covered by commercial loan
2006	Tung Chung 260	5.7	1.0	A cable car project; funds arranged by MTRCL
2007	Lok Ma Chau Spur Line	7.4	10.0	Internal funds and commercial borrowing arranged by KCRC
2009	Kowloon Southern Link	4.5	8.3	Funds arranged by KCRC



MTRC residential properties along urban lines

Residential	No. of Towers	No. of Flats	Average Flat Size (sq.m.)	Commercial Area (sq.m.)	Government Institution & Community Area (sq.m.)	No. of Car Parking Spaces
Telford Gardens	41	4,992	44-62	52,171	909	723
Luk Yeung Sun Chuen	17	4,000	43-63	15,548	13,562	651
New Kwai Fong Garden	5	1,264	46-49	4,484	540	126
Fortress Metro Tower	4	757	46-102	6,791	-	114
Kornhill	32	6,648	54-115	104,170	9640	1,168
Kornhill Gardens	10	2,180	45-75	-	-	-
Hongway Garden	2	412	47-55	2,544	-	-
Perfect Mount Garden	5	760	45-65	1,119	19,830	-
Southorn Garden	1	480	51-77	2,646	40,918	12
Heng Fa Chuen	48	6,504	52-114	26,742	19,563	849
Felicity Garden	4	732	72-84	-	13,386	-
No.8 Clear Water Bay	1	316	53-78	2,400	3,733	504



Property Development – Tsuen Wan Station

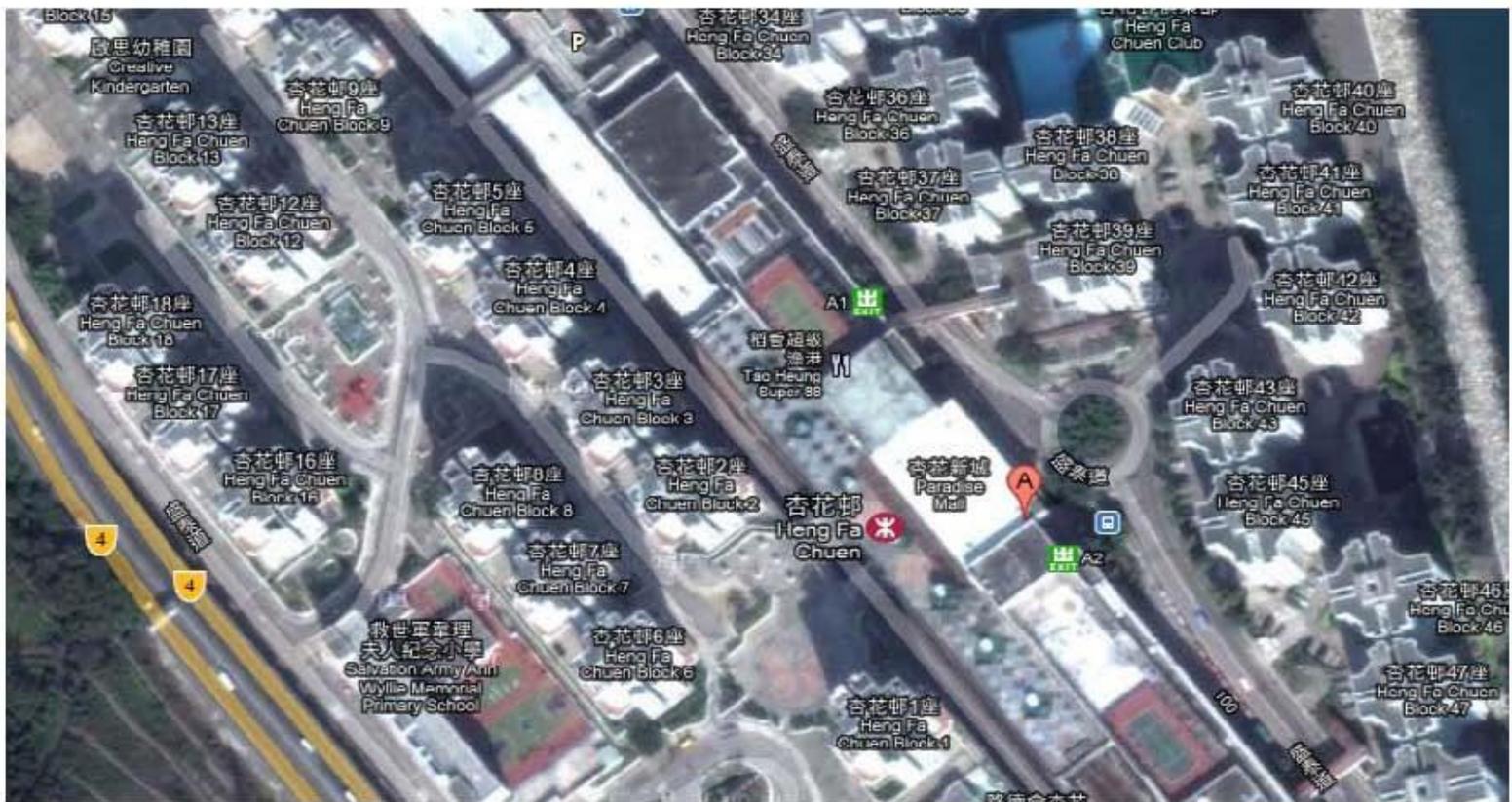
Luk Yeung Sun Chuen



Property Development

- Chai Wan Station

Heng Fa Chuen



MTRC commercial properties along urban lines

Commercial	Office G.F.A. (sq.m.)	Shop G.F.A. (sq.m.)	Lettable Area (sq.m.)	No. of Shops	No. of Car Parking Spaces
Admiralty Centre	72,290	18,114	-	180	-
Admiralty Centre (Ten Shop Units at 1st Floor)	-	-	286	-	-
World-wide House	33,314	7,141	-	227	-
Fairmont House	20,886	-	-	-	-
Telford Plaza I	-	52,171	39,620	154	270
Telford Plaza II	-	31,030	19,411	96	188
Telford Plaza - Hang Seng Tower	26,635	-	-	-	25
Nathan Road (2 shops)	-	-	106	2	-
Luk Yeung Galleria	-	15,548	11,394	59	-
Paradise Mall	-	26,742	18,771	114	415



Property Development – Kowloon Bay Station

Telford Gardens , Telford Plaza I,
Telford Plaza II



Property Development

– Olympic Station

HSBC Centre, Bank of China Centre, Olympian City One, Island Harbourview, Park Avenue, Central Park, Olympian City Two Harbour Green

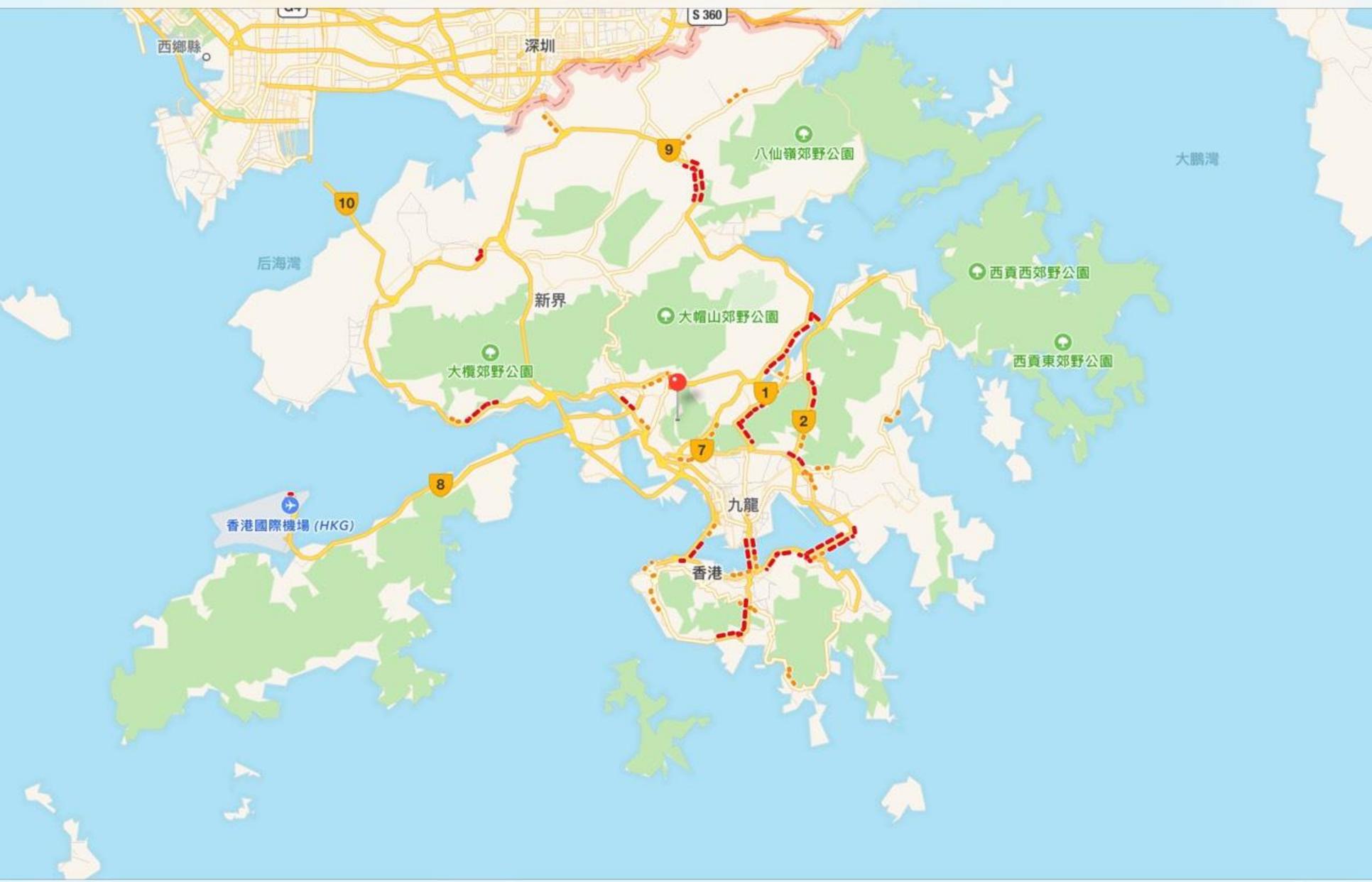


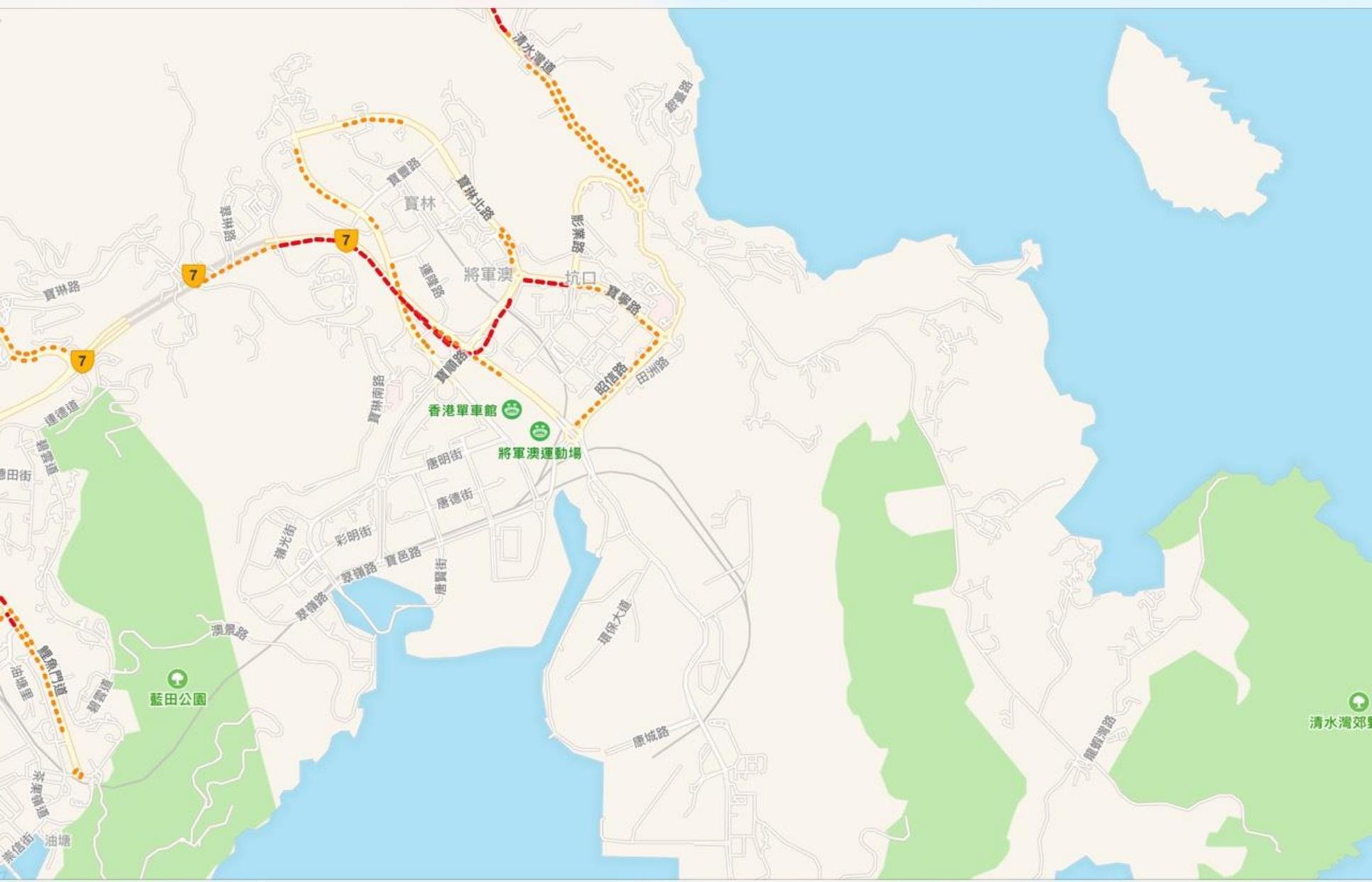
Property Development

- Hong Kong Station

One International Finance Centre, Two International Finance Centre, IFC Mall, Hotel and Suites Hotel







MTRC property developments along Tsung Kwan O Line



	Site Area (Hectares)	Domestic GFA (sq.m.)	No. of Flats	Average Flat Size (sq.m.)	No. of Towers	Retail GFA (sq.m.)	Office GFA (sq.m.)	Others
TIU KENG LENG	3.24	236,965	3,772	62.8	9	16,800	-	-
TSEUNG KWAN O	5.55	190,925	3,012	58-70	8	35,514	5,000	2 (hotel) (residential)
HANG HAU	1.80	138,652	2,130	65	6	3,500	-	-



MTRC property developments along Tseung Kwan O Line



	Site Area (Hectares)	Domestic GFA (sq.m.)	No. of Flats	Average Flat Size (sq.m.)	No. of Towers	Retail GFA (sq.m.)	Office GFA (sq.m.)	Others
TIU KENG LENG	3.24	236,965	3,772	62.8	9	16,800	-	
TSEUNG KWAN O	5.55	190,925	3,012	58-70	8 (residential) 2 (hotel)	35,514	5,000	
HANG HAU	1.80	138,652	2,130	65	6	3,500	-	

港鐵路綫圖 MTR system map



- 機場快線 Airport Express
 - 迪士尼綫 Disneyland Resort Line
 - 東鐵綫 East Rail Line
 - 港島綫 Island Line
 - 觀塘綫 Kwun Tong Line
 - 馬鞍山綫 Ma On Shan Line
 - 將軍澳綫 Tseung Kwan O Line
 - 荃灣綫 Tsuen Wan Line
 - 東涌綫 Tung Chung Line
 - 西鐵綫 West Rail Line
 - 輕鐵 Light Rail
 - 深圳地鐵網絡 Shenzhen Metro Network
- 圓圈 (海外區域) Subway (Overseas area)
 ○ 圓圈 (已付車費區域) Subway (Paid area)
 * 只限賽馬日 Race days only

新綫工程挑戰II：沙田至
中環綫

NEW LINES

ENGINEERING

CHALLENGES II -

SHATIN TO CENTRAL

LINK - YOUTUBE (360P)

港鐵沙中綫與觀塘綫延線方案

Diagram of MTR Shatin to Central Link and extension of Kwun Tong Line



MTRC property developments along Tseung Kwan O Line



	Site Area (Hectares)	Domestic GFA (sq.m.)	No. of Flats	Average Flat Size (sq.m.)	No. of Towers	Retail GFA (sq.m.)	Office GFA (sq.m.)	Others
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MTRC property developments along Tsung Kwan O Line



	Site Area (Hectares)	Domestic GFA (sq.m.)	No. of Flats	Average Flat Size (sq.m.)	No. of Towers	Retail GFA (sq.m.)	Office GFA (sq.m.)	Others
TIU KENG LENG	3.24	236,965	3,772	62.8	9	16,800	-	-
TSEUNG KWAN O	5.55	190,925	3,012	58-70	8	35,514	5,000	2 (hotel) (residential)
HANG HAU	1.80	138,652	2,130	65	6	3,500	-	-



Property Development – LOHAS Park Station

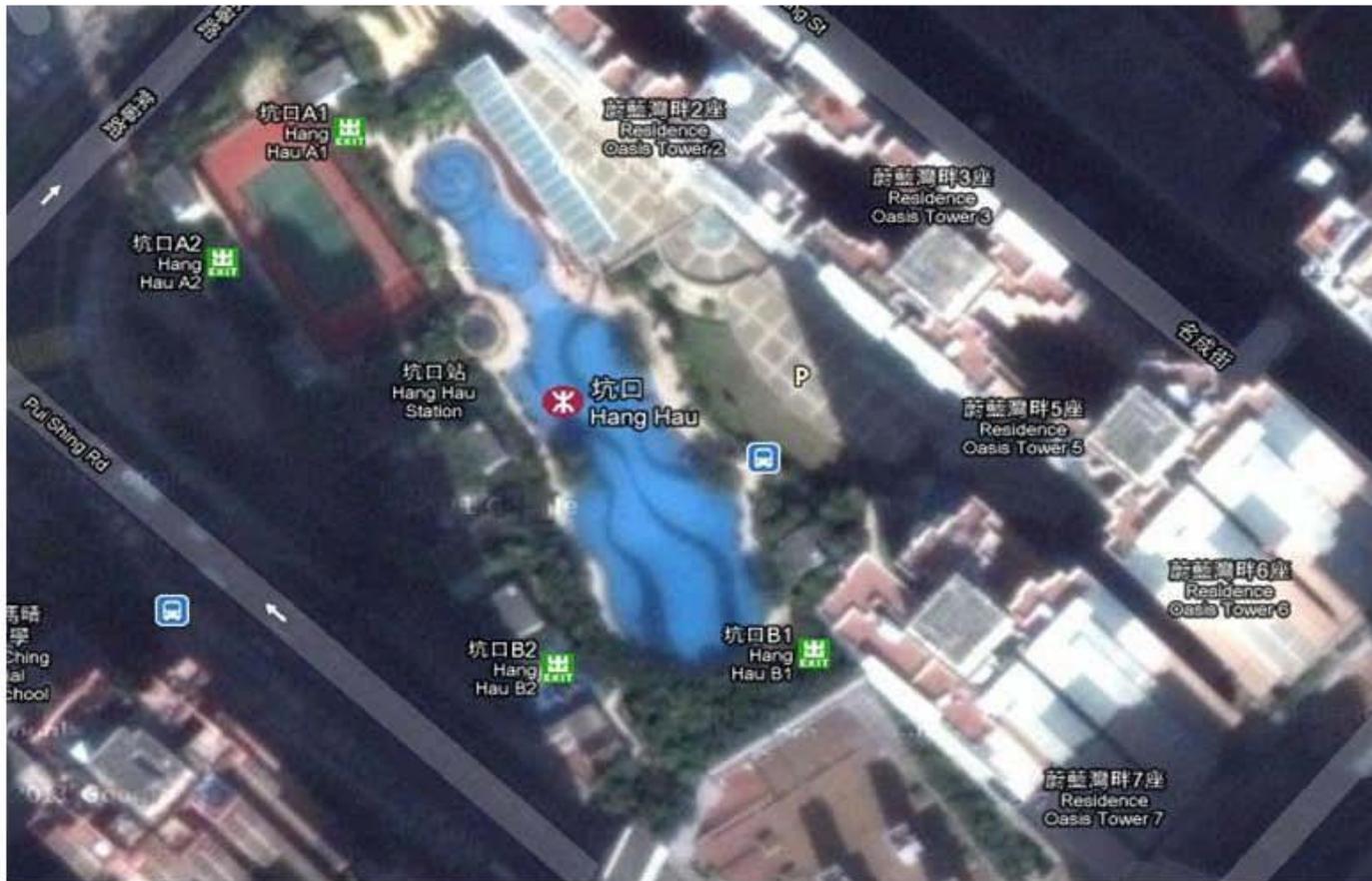
The Capitol , Le Prestige



Property Development

- Hang Hau Station

Residence Oasis



**MTR CORPORATION
LIMITED**

**香港鐵路有限公司
物業的財務利益**

FINANCIAL PROFILE OF MTRC

	2013	2012	2011	2010	2009	2008	2007*	2006	2005	2004
Financial										
Consolidated Profit and Loss Account <i>(HK\$ million)</i>										
Turnover	38,707	35,739	33,423	29,518	18,797	17,628	10,690	9,541	9,153	8,351
Operating profit before depreciation, amortisation and variable annual payment *	15,795	16,133	17,058	14,951	13,069	14,009	14,229	11,032	11,259	9,110
Depreciation and amortisation	3,372	3,208	3,206	3,120	2,992	2,944	2,752	2,688	2,695	2,512
Interest and finance charges	732	879	921	1,237	1,504	1,998	1,316	1,398	1,361	1,450
Investment property revaluation gain/(loss)	4,425	3,757	5,088	4,074	2,798	(146)	8,011	2,178	2,800	2,486
Profit *	13,208	13,514	15,688	12,844	10,101	8,035	16,584	8,139	8,953	6,978



MTRC PROFILE

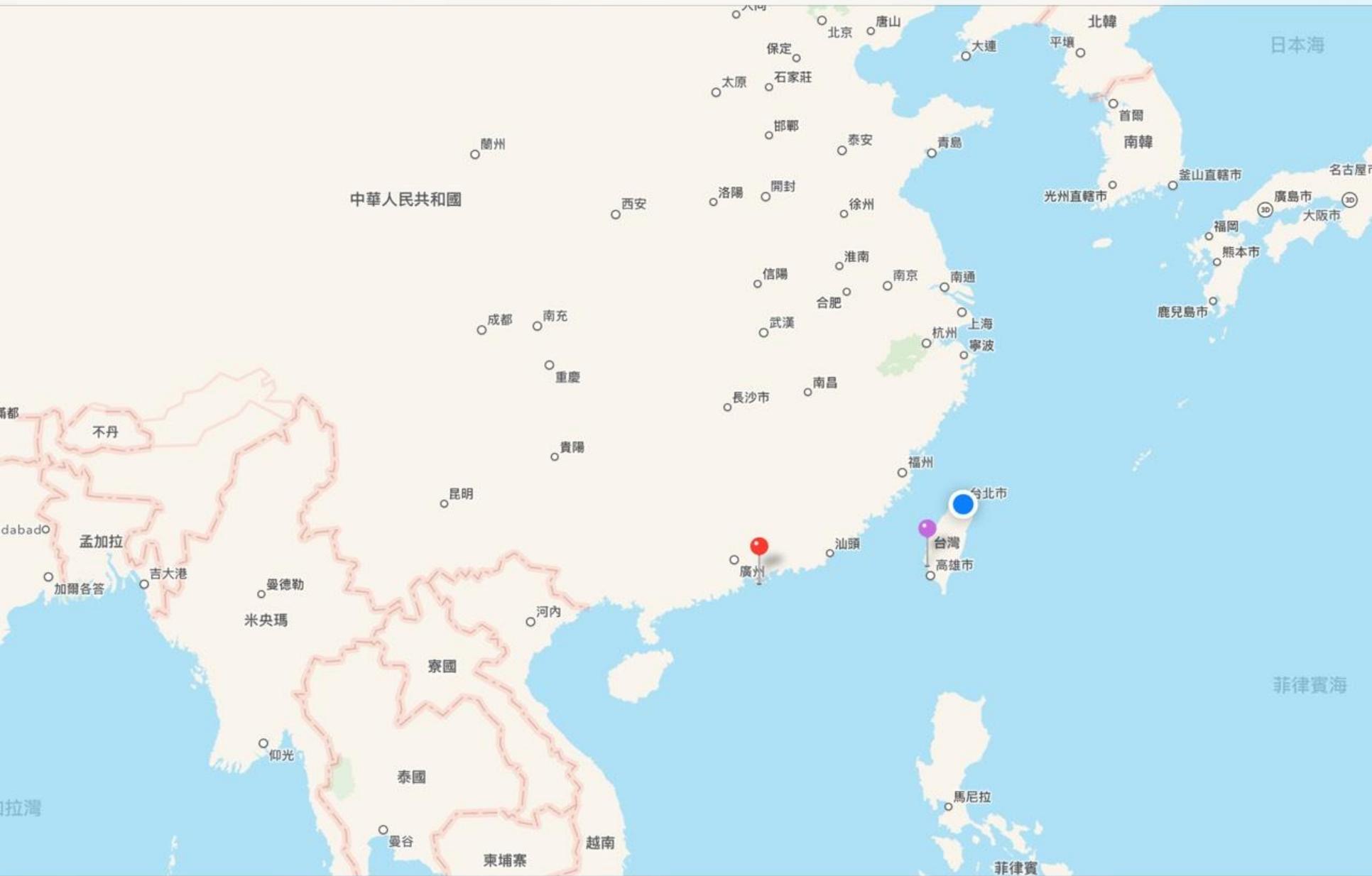
Operating Profit Contributions*

(HK\$ billion)



Thank You!







**MANDANI BAY -
HONGKONG LAND +
PROPERTIES -
YOUTUBE (360)**

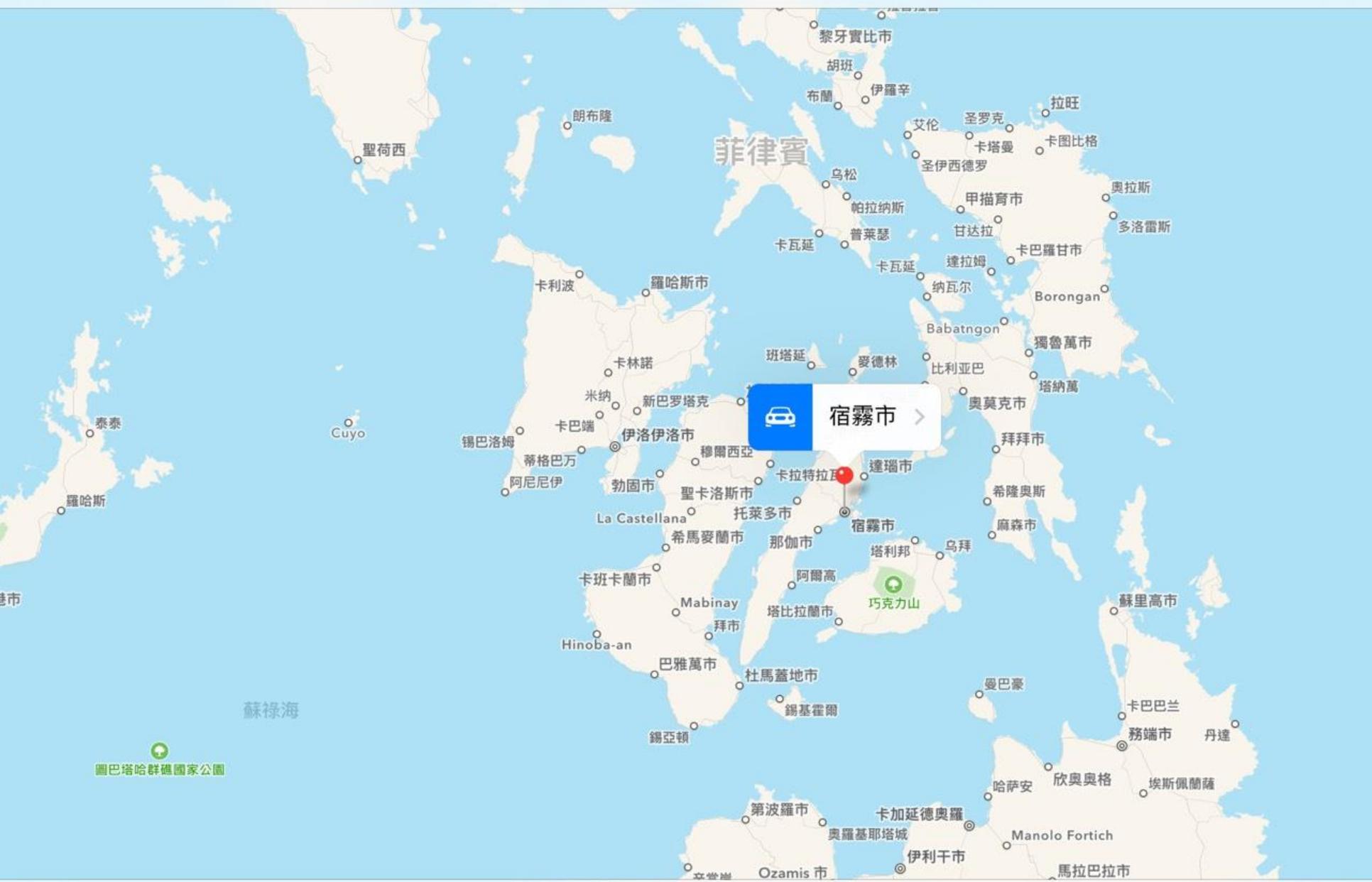
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PHILIPPINES/CEBU/MA
NDANI-BAY.HTML~~**

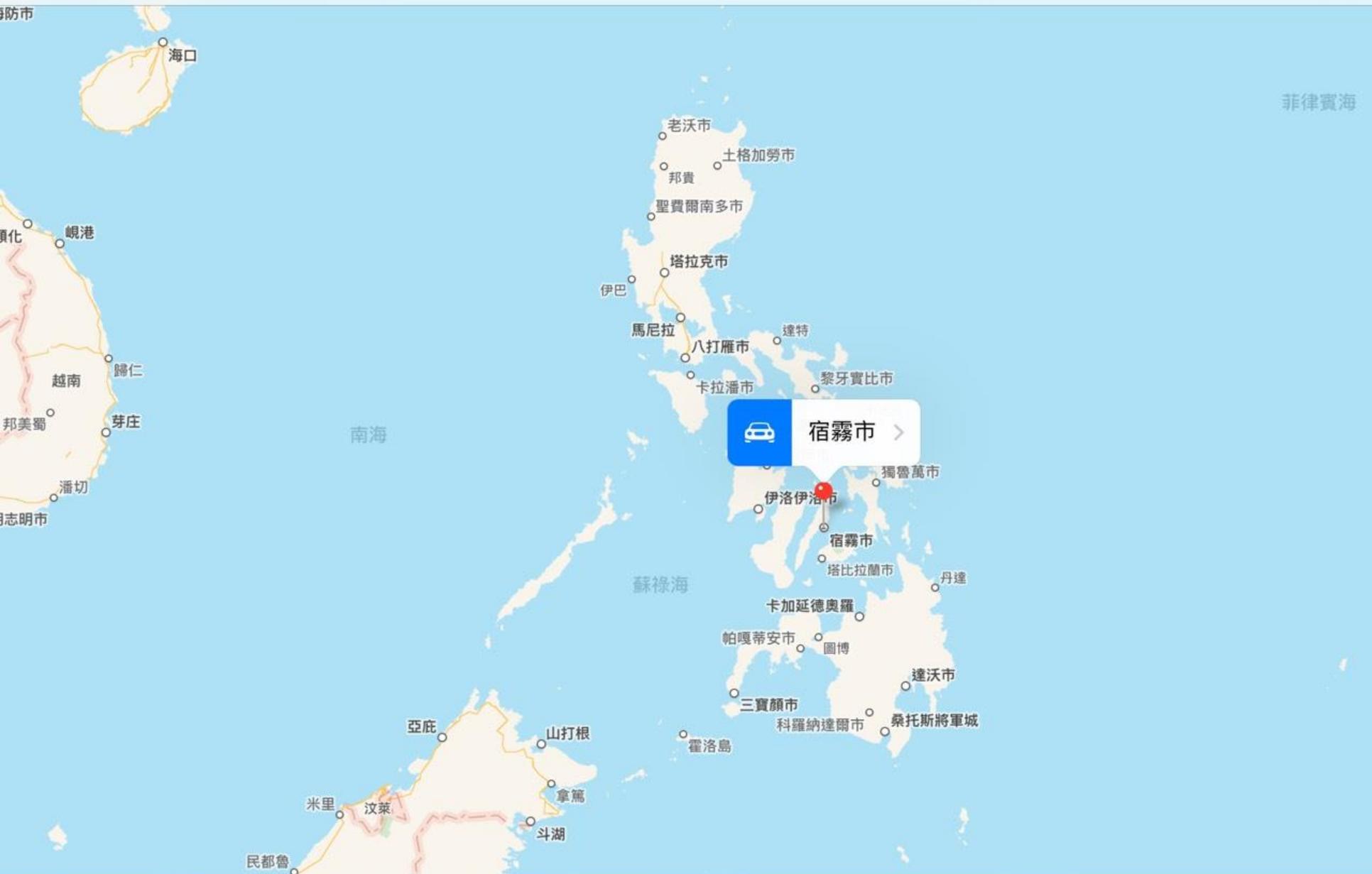


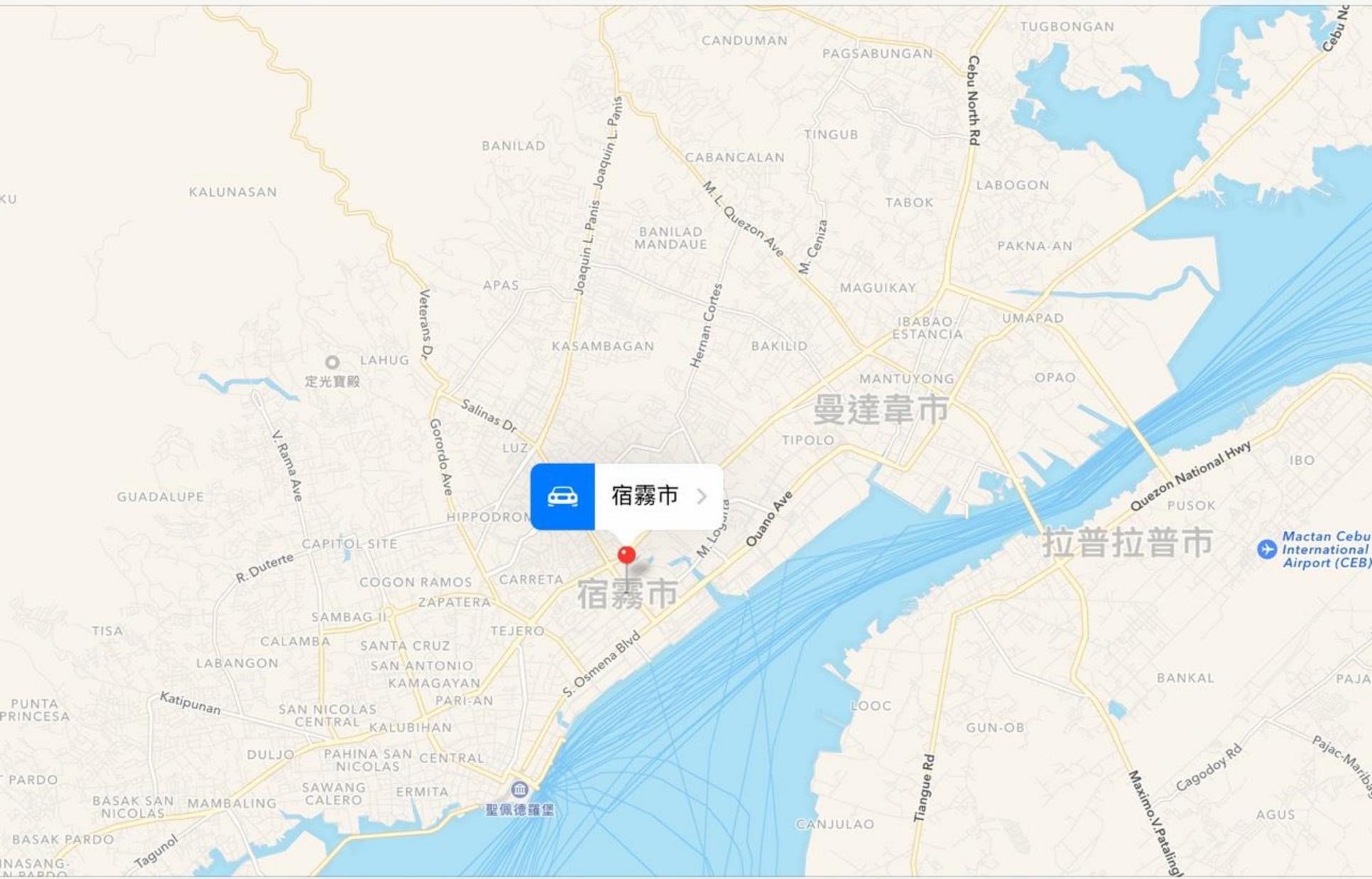




Cebu City, Cebu, Philippines







 宿霧市 >

宿霧市

拉普拉普市

曼達韋市

聖佩德羅堡

Mactan Cebu International Airport (CEB)



