

Mass Transit and TOD in Case of MRTA



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ATRANS

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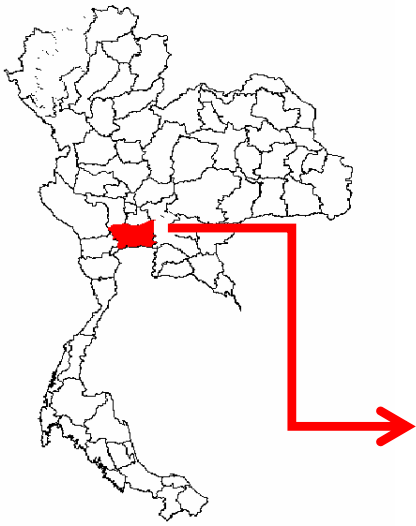
Topics:

- **Overview**
- **MRTA Master Plan**
- **TOD in case of MRTA**

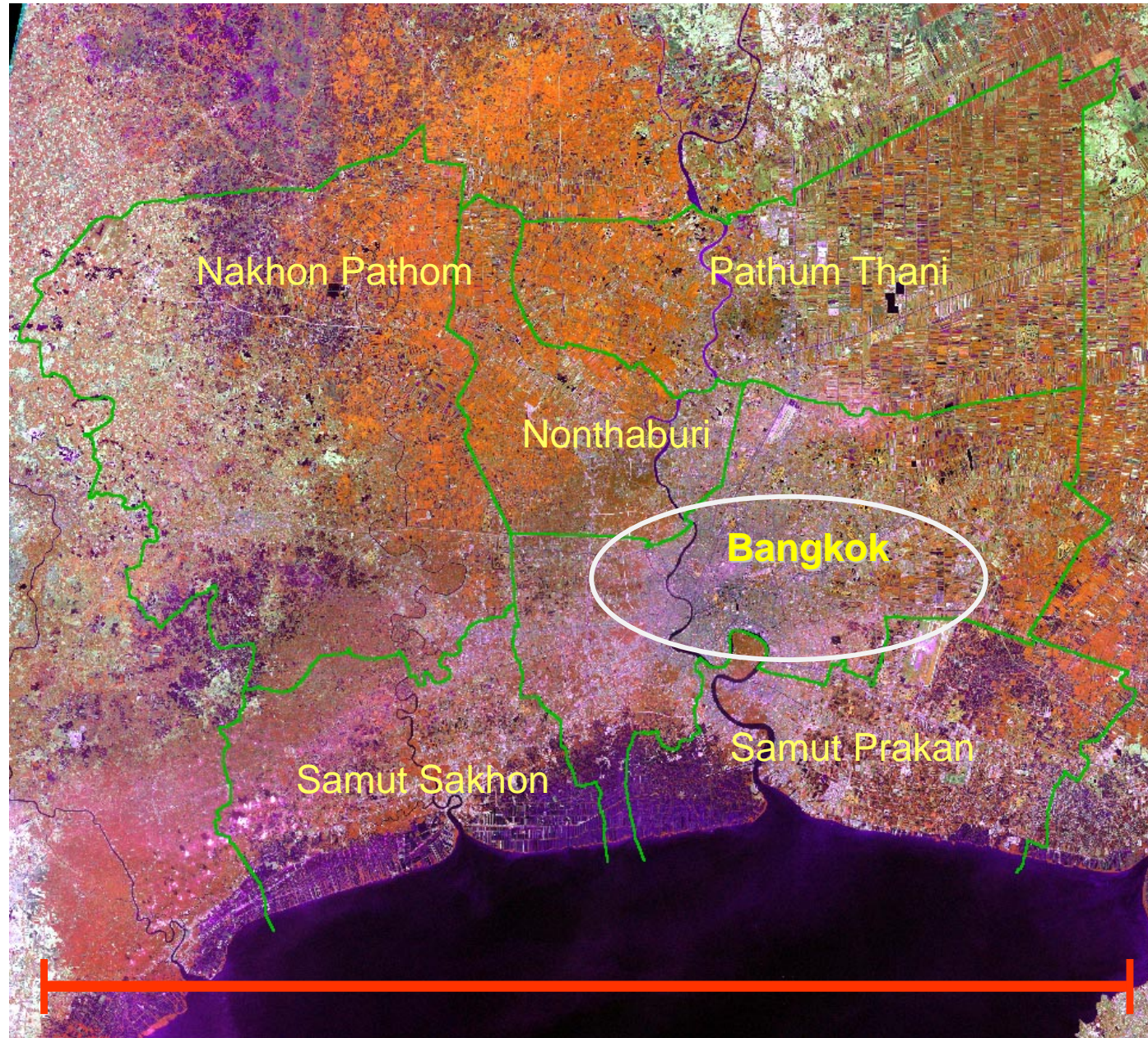


Overview

Bangkok Metropolitan Region (BMR)

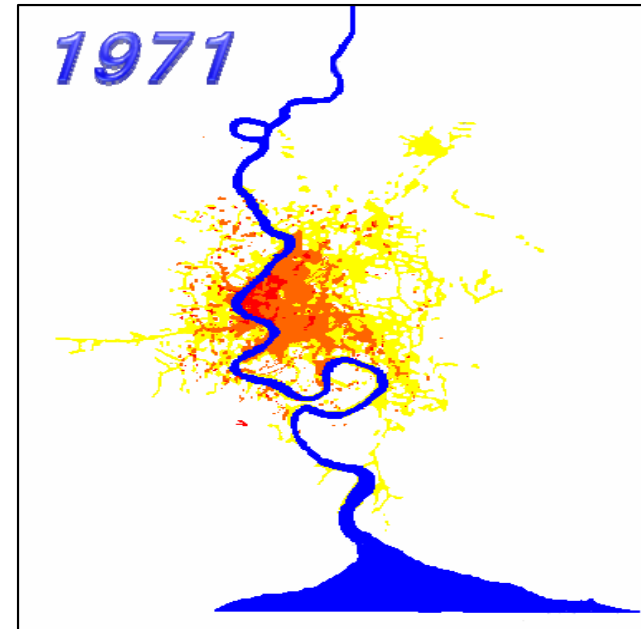
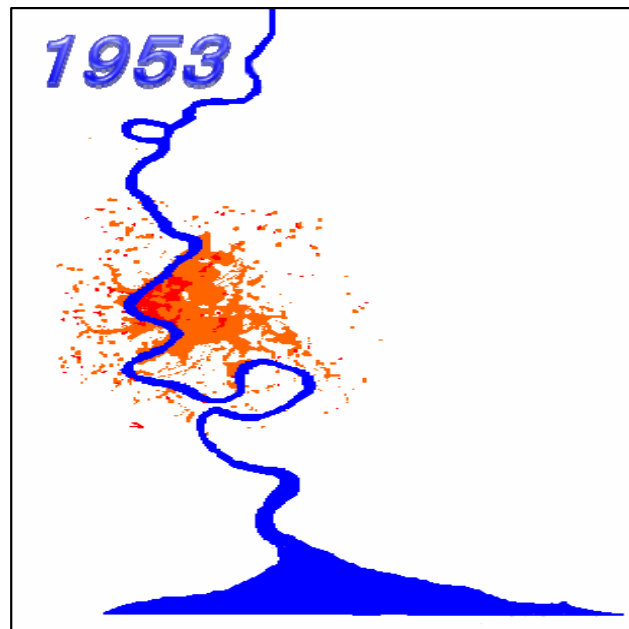
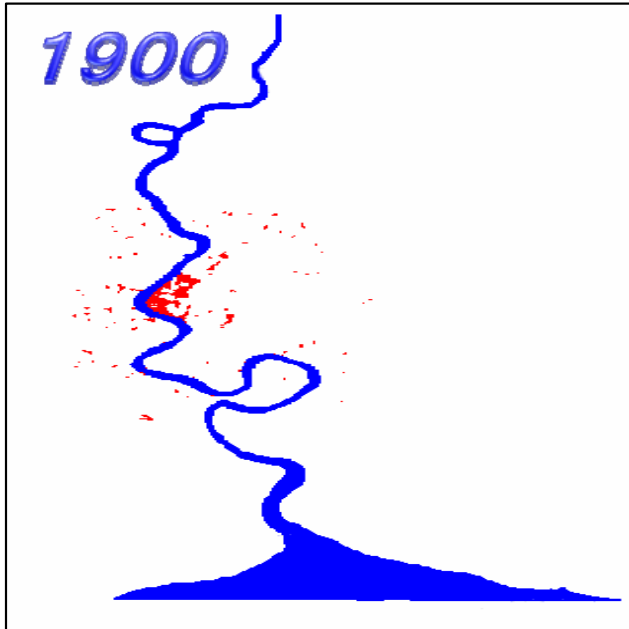


**BMR TOTAL AREA:
7,785 sq.km.**

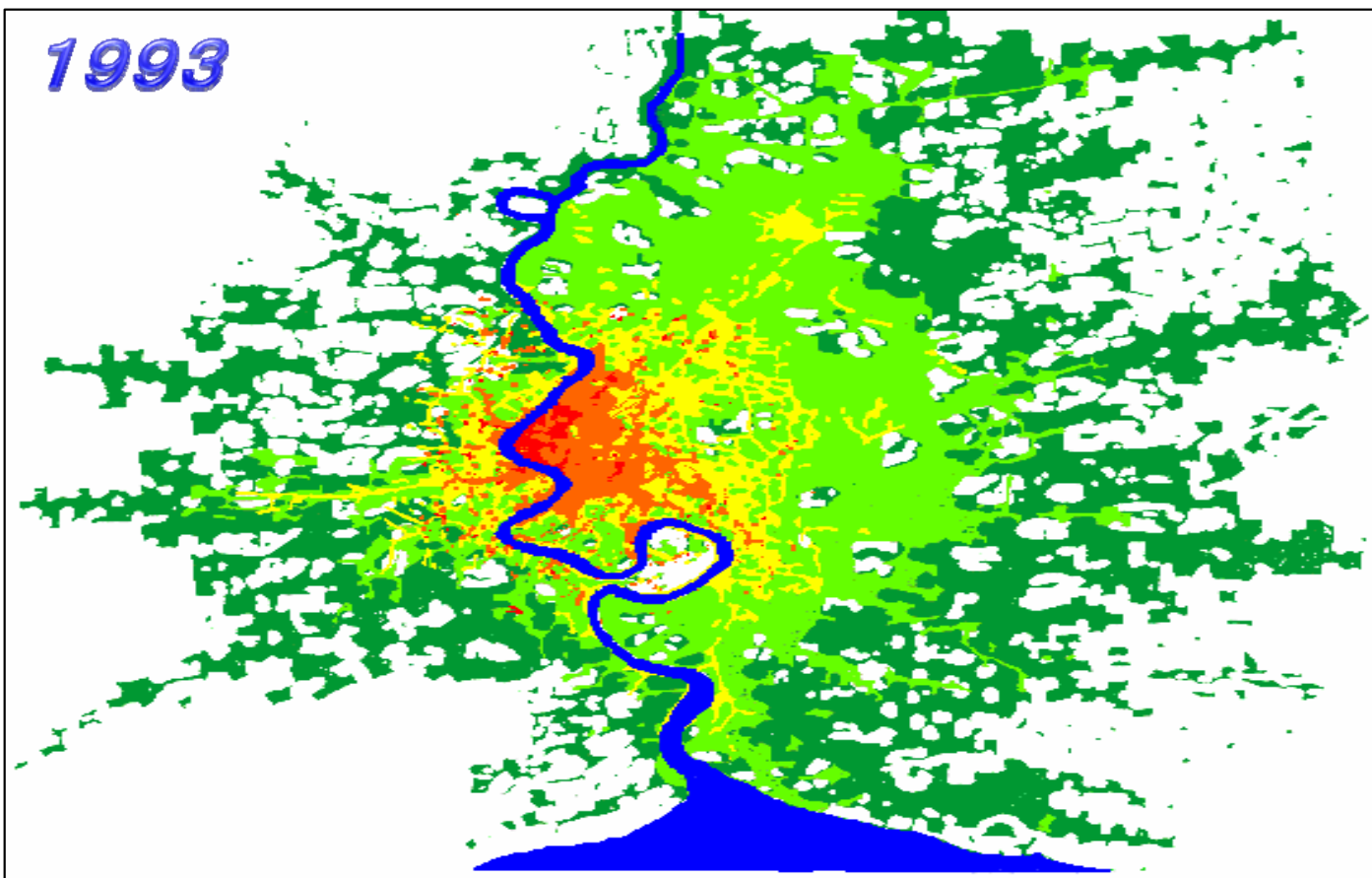
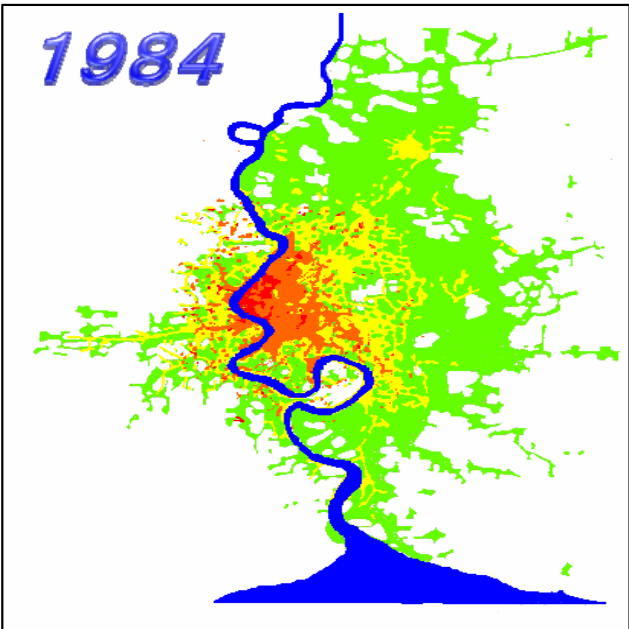


85 km.





Urban Growth of Bangkok









Traffic and Transport Situation in Bangkok



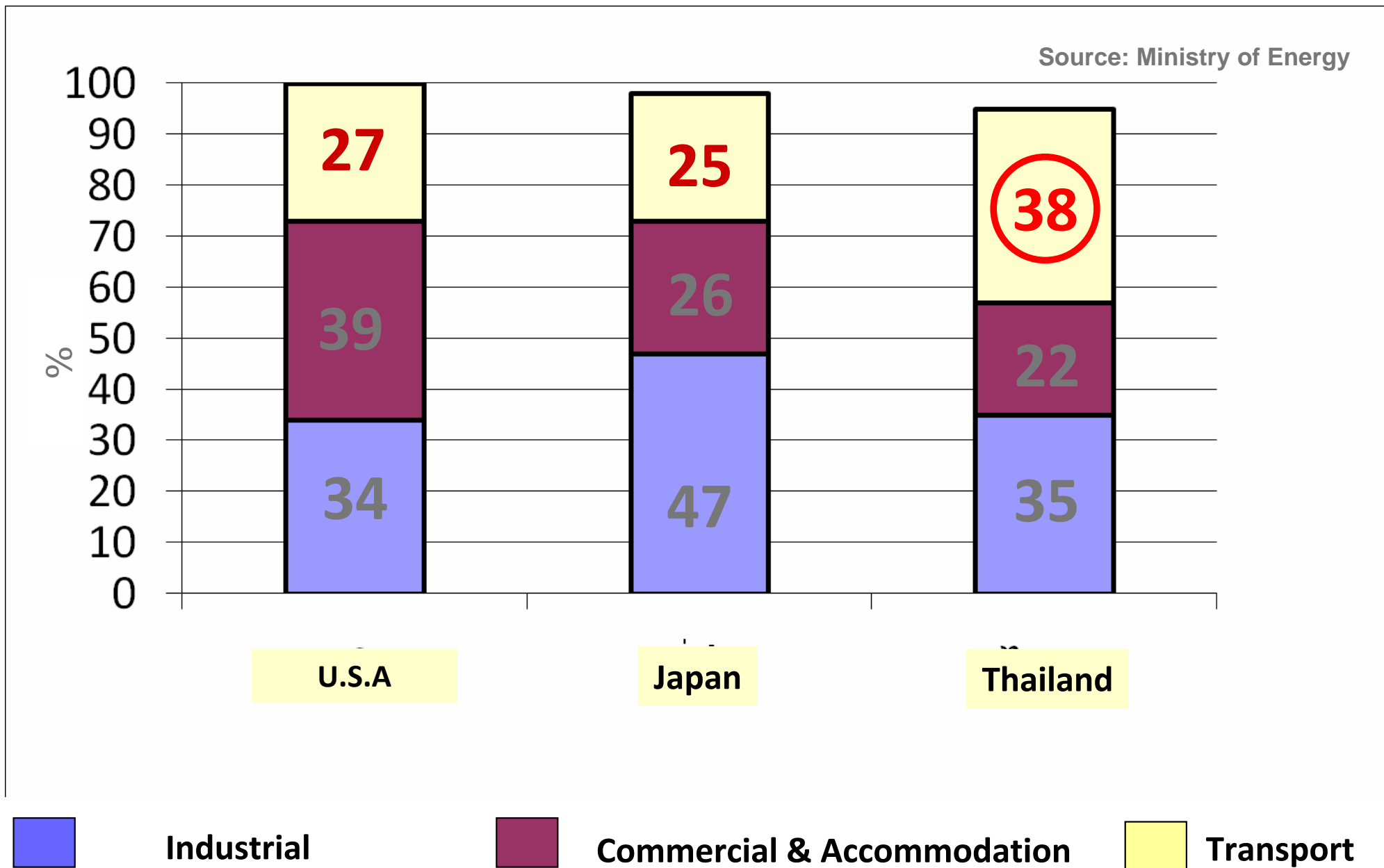
Current Situation in BMR

Mode		Number of Trips (mill. Trips/day)	Percentage of Trips (%)
	Private Car	10	58
	Bus	6.5	38
MRT	 BTS	0.5	} 4
	 MRTA / BMCL	0.2	
Total		17.2	100

(Source: OTP)

Proportion of Energy Consumption

Source: Ministry of Energy



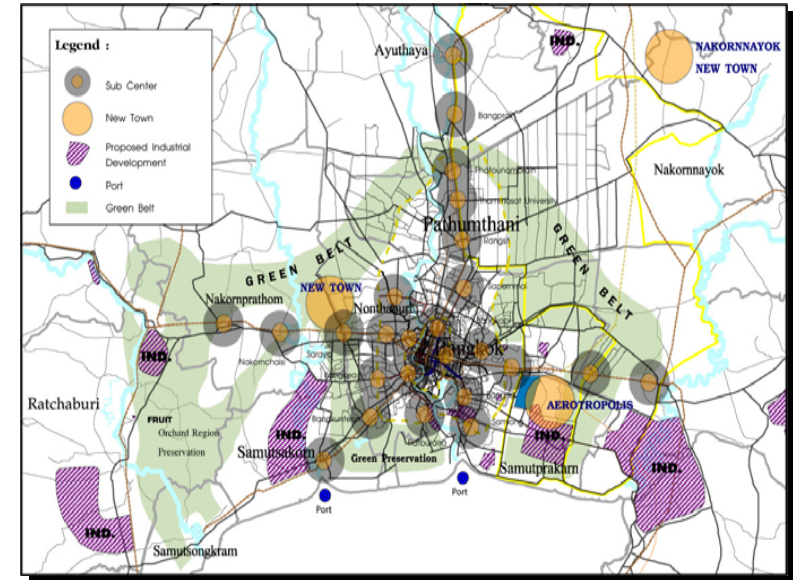
<i>City</i>	<i>Population (Mil.)</i>	<i>Area (km²)</i>	<i>MRT (km.)</i>	<i>MRT/Pop</i>	<i>MRT/Area</i>
<i>New York</i>	<i>8.3</i>	<i>1,214</i>	<i>368</i>	<i>44.4</i>	<i>3.66</i>
<i>Moscow</i>	<i>10.5</i>	<i>2,150</i>	<i>292</i>	<i>27.9</i>	<i>1.30</i>
<i>Soul</i>	<i>10.42</i>	<i>605</i>	<i>287</i>	<i>27.6</i>	<i>0.47</i>
<i>Madrid</i>	<i>4.9</i>	<i>945</i>	<i>283</i>	<i>57.8</i>	<i>0.30</i>
<i>Beijing</i>	<i>8.61</i>	<i>748</i>	<i>200</i>	<i>23.3</i>	<i>0.27</i>
<i>London</i>	<i>8.28</i>	<i>1,623</i>	<i>400</i>	<i>48.4</i>	<i>0.25</i>
<i>Bangkok</i>	<i>6.5</i>	<i>1,569</i>	<i>74</i>	<i>11.4</i>	<i>0.05</i>



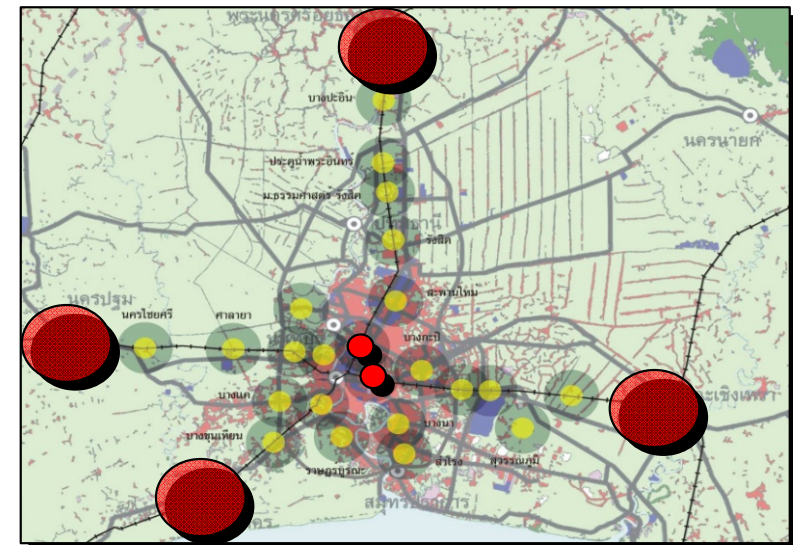
MRTA Master Plan

Urban Development Concept of Bangkok and its vicinity

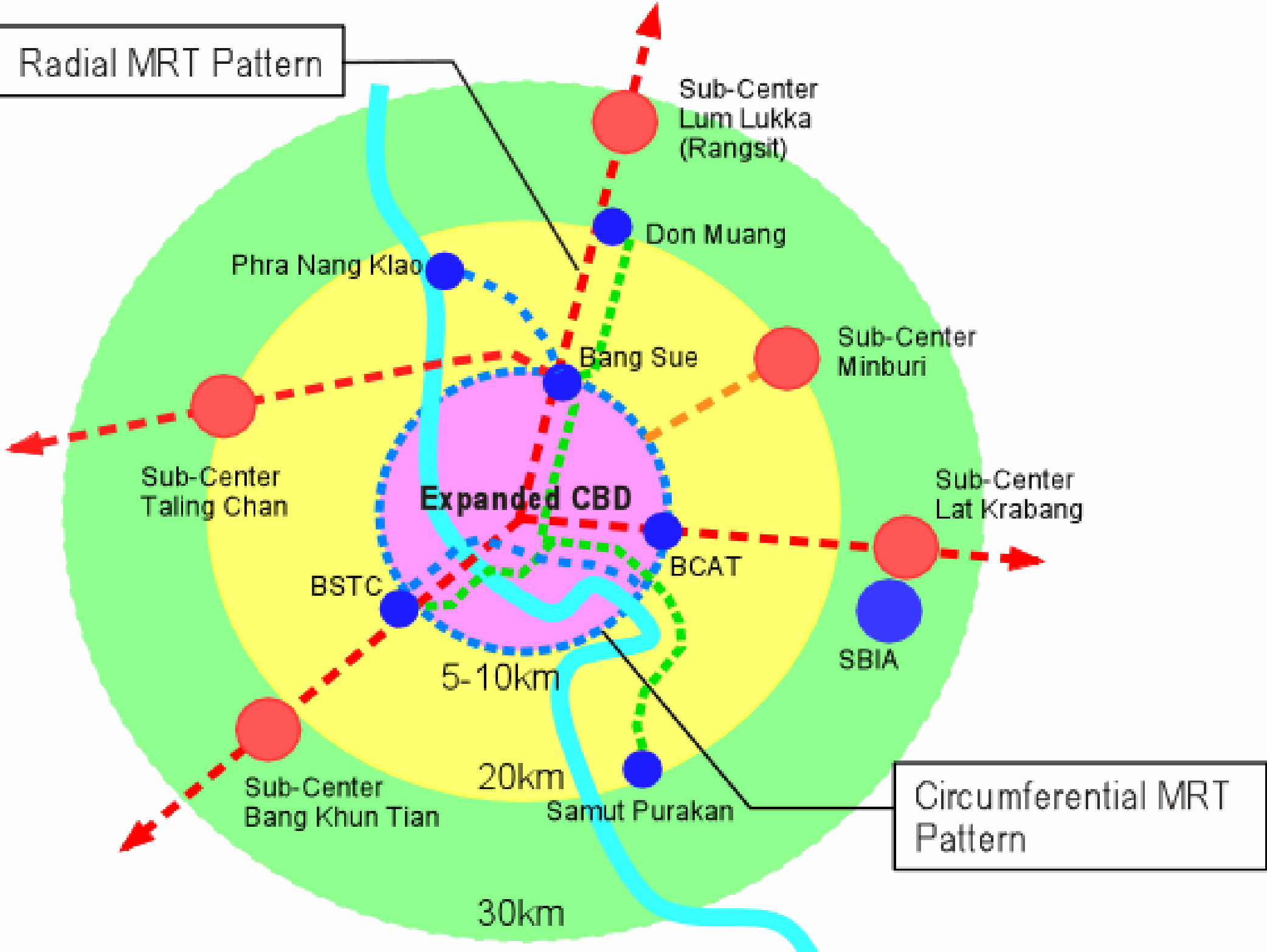
City Settlement Pattern



Satellite Town Concept



Radial MRT Pattern



Circumferential MRT Pattern

Mass Transit Master Plan (M-Map) : 2010



1) Thammasat – Bang Sue – Hua lamphong – Mahachai

4) Lam Lukka - Mo Chit – Samut Prakarn – Bang Pu

9) Kae rai – Min Buri

7) Bang Yai – Raj Burana,

1	สายสีแดง	ธรรมศาสตร์-บางซื่อ-หัวลำโพง-มหาชัย
2	สายสีแดงอ่อน	ศาลายา-ตลิ่งชัน-บางซื่อ-มีขาม-หัวหมาก
3	สายสีแดงเข้ม	แบริ่ง-หัวลำโพง-บางซื่อ-สุพรรณภูมิ
4	สายสีเขียว	ท่าอากาศยาน-หมอชิต-ปทุมธานี-บางปู
5	สายสีเขียวอ่อน	ชดช.-บางหว้า
6	สายสีน้ำเงิน	ท่าพระ-บางซื่อ-หัวลำโพง-บางแค-พุทธมณฑลสาย 4
7	สายสีม่วง	บางใหญ่-บางซื่อ-บางใหญ่-บางพระ
8	สายสีส้ม	ตลิ่งชัน-ศูนย์วัฒนธรรม-บางเขน-มีนบุรี
9	สายสีชมพู	แคว้น-ปากเกร็ด-อู่สาวิชัย-ตลิ่งชัน-มีนบุรี
10	สายสีเหลือง	ชดช.-ท่าพระ-พัฒนาการ-สำโรง
11	สายสีเทา	วัดเทพ-ลาดพร้าว-พระราม 4-สะพานพระราม 9
12	สายสีฟ้า	ดินแดง-มักกะสัน-สาทร

11) Min Buri – Taling Chan

2) Saraya – Taling Chan – Bang Sue – Makkasan – Hua Mak

8) Bang Bamru – Cultural Center – Bang Kapi – Min Buri

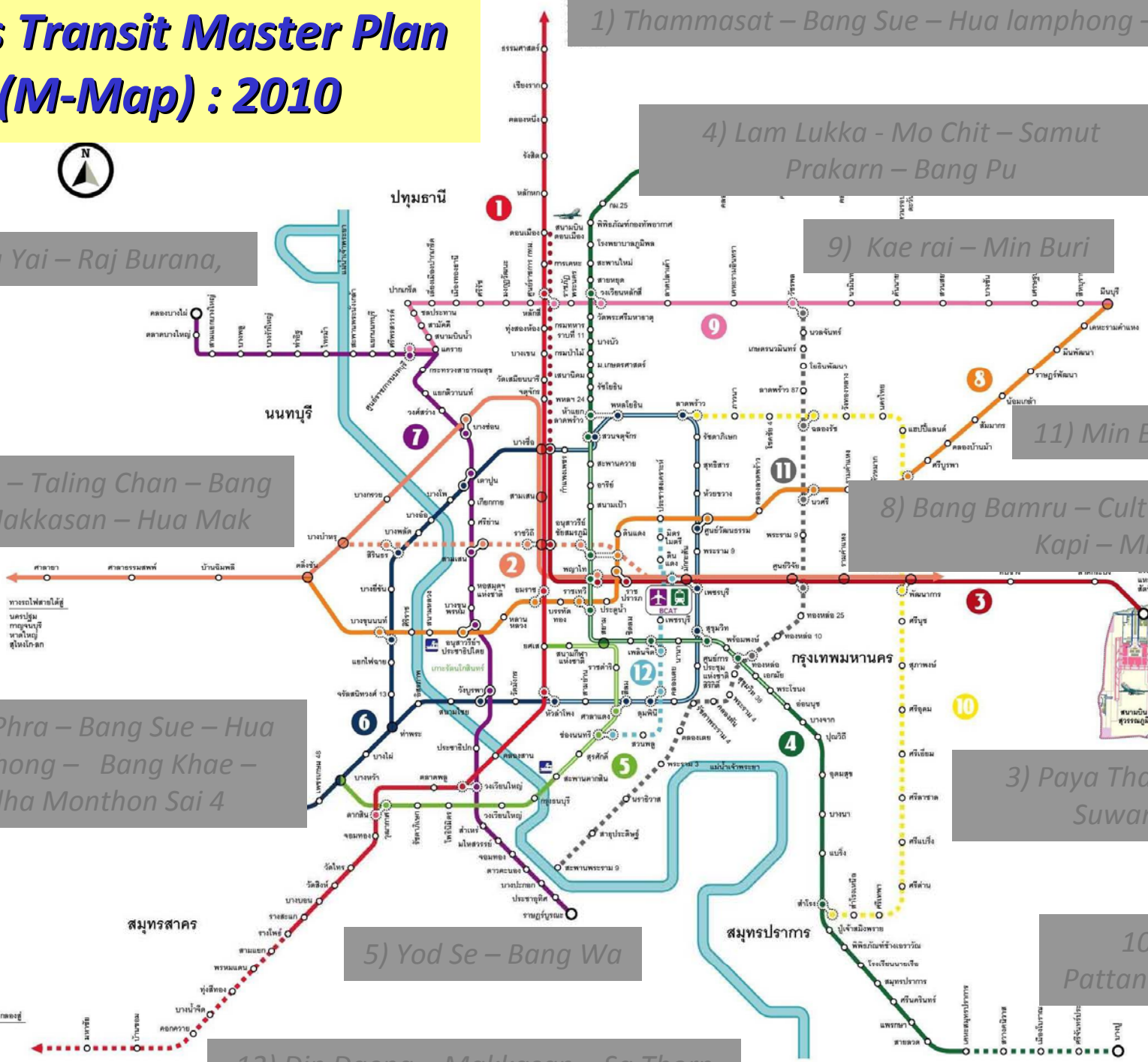
6) Tha Phra – Bang Sue – Hua Lamphong – Bang Khae – Budha Monthon Sai 4

3) Paya Thai – Makkasan – Suwannabhumi

5) Yod Se – Bang Wa

10) Lad Phrao – Pattanakarn – Sam Rong

12) Din Daeng – Makkasan – Sa Thorn



Mass Rapid Transit Authority of Thailand (MRTA)

State Enterprise under Supervision of the Ministry of transport, established in 1992.

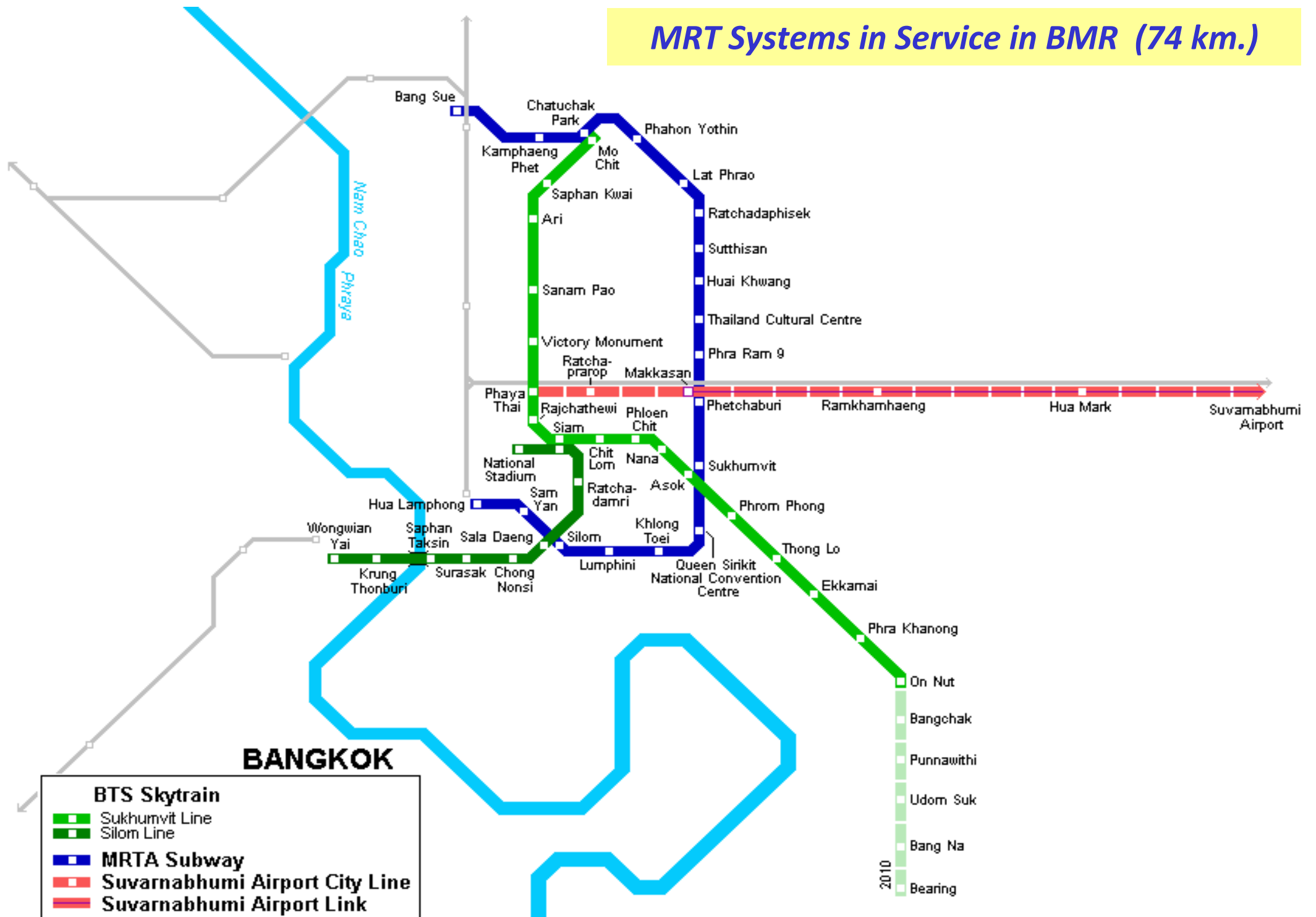
Mission :

- Provide Bangkok with an efficient mass rapid transit system
- Carry out related business for the benefits of passengers and MRTA concerning transport services



Extension and New MRT Projects

MRT Systems in Service in BMR (74 km.)





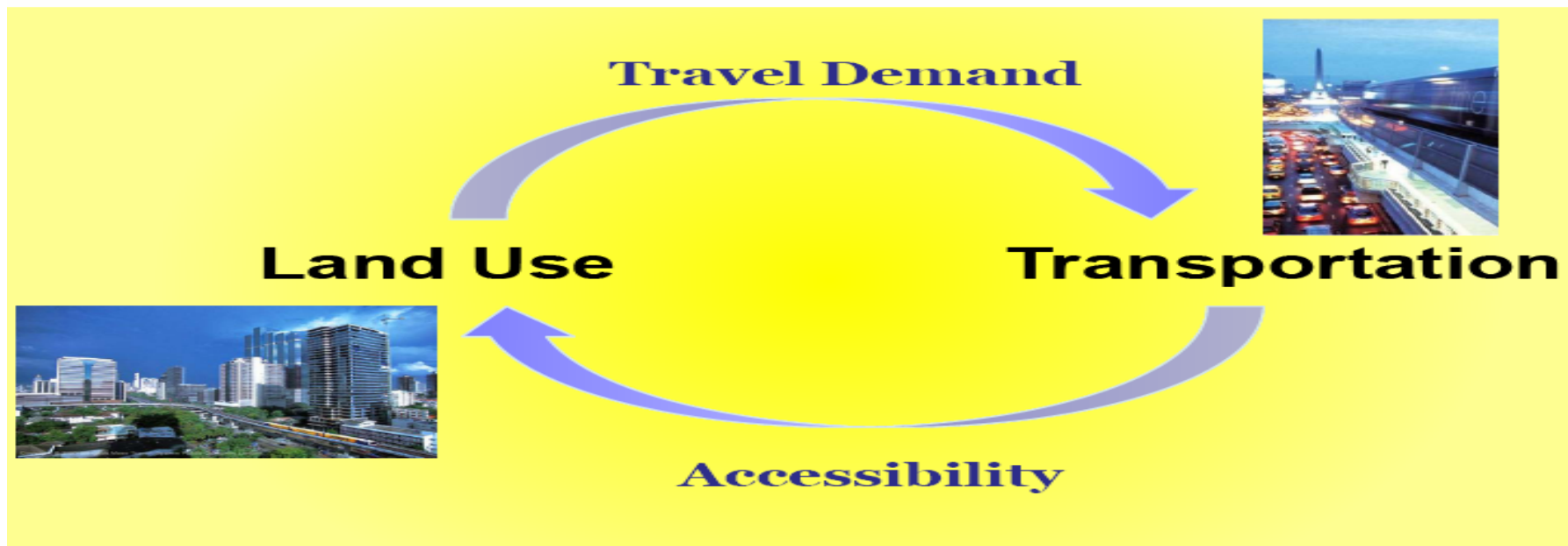


TOD in case of MRTA

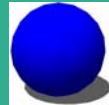
What is TOD?

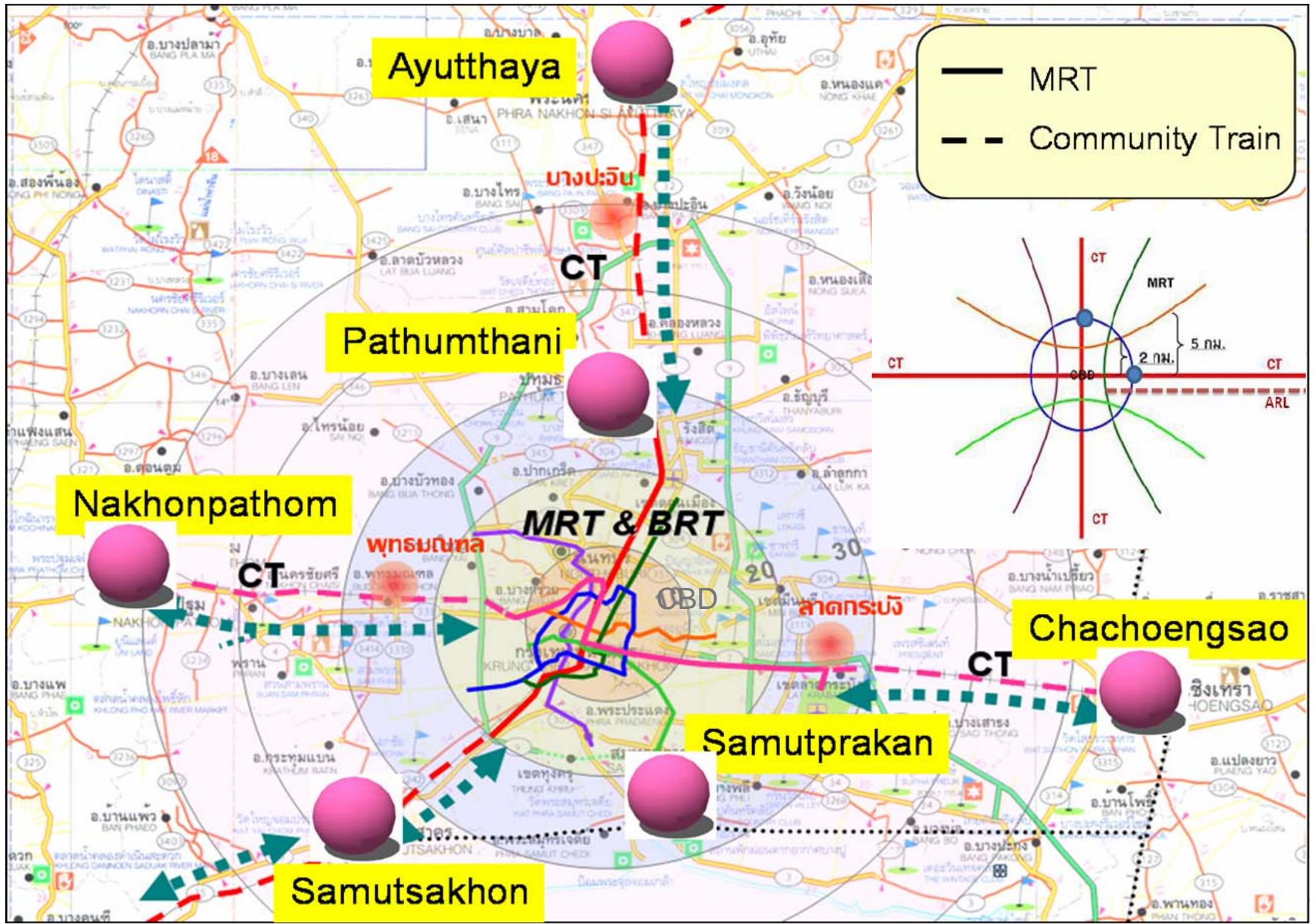
- TOD is a synergism between land use and transit with the following key characteristics:
 - Compact Mixture of Uses;
 - Pedestrian Friendly and Walkable; and
 - Supportive of a Variety of Transit Options.

Land Use /Transport Interaction

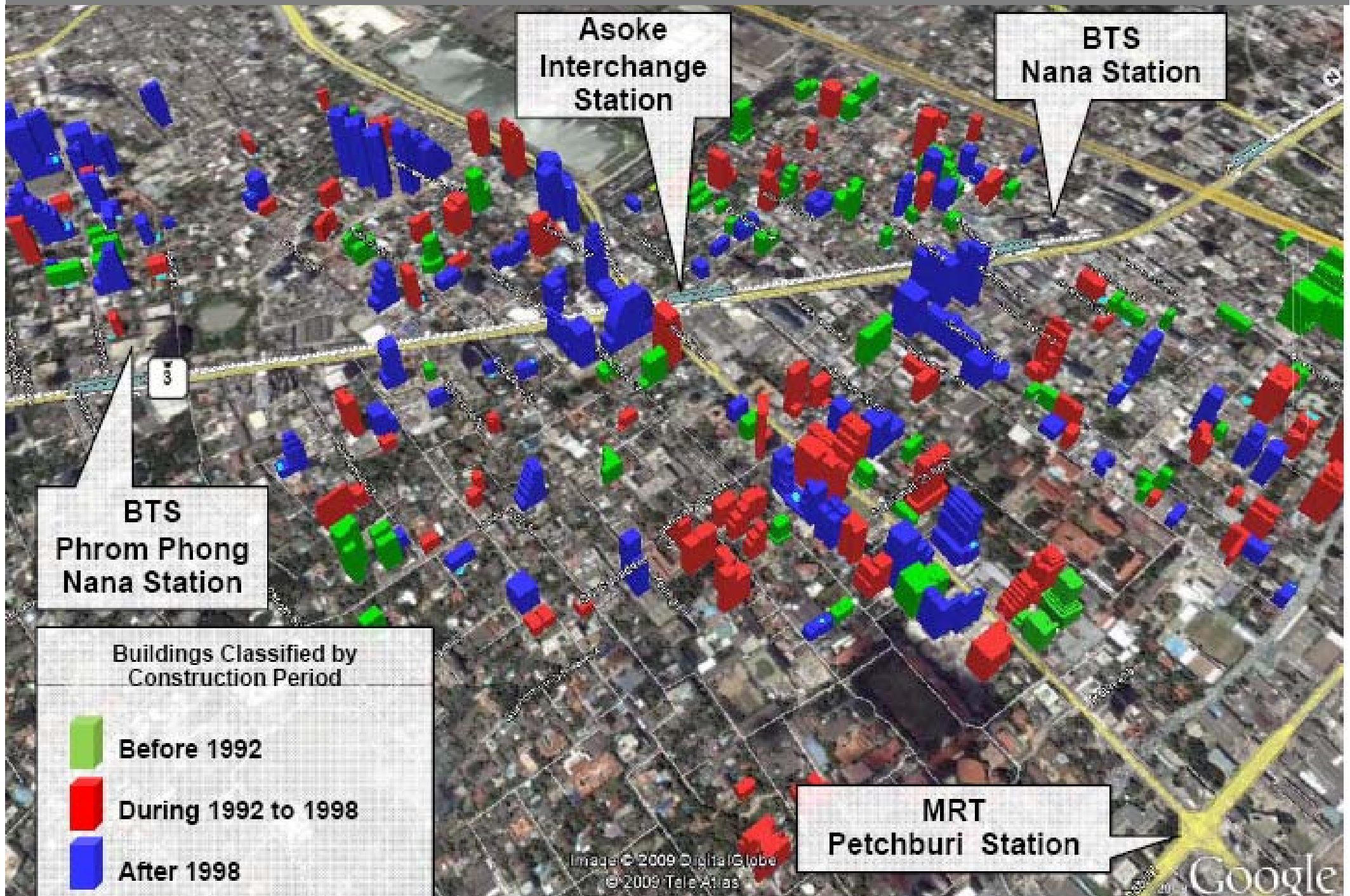


Town and Mass Transit Development

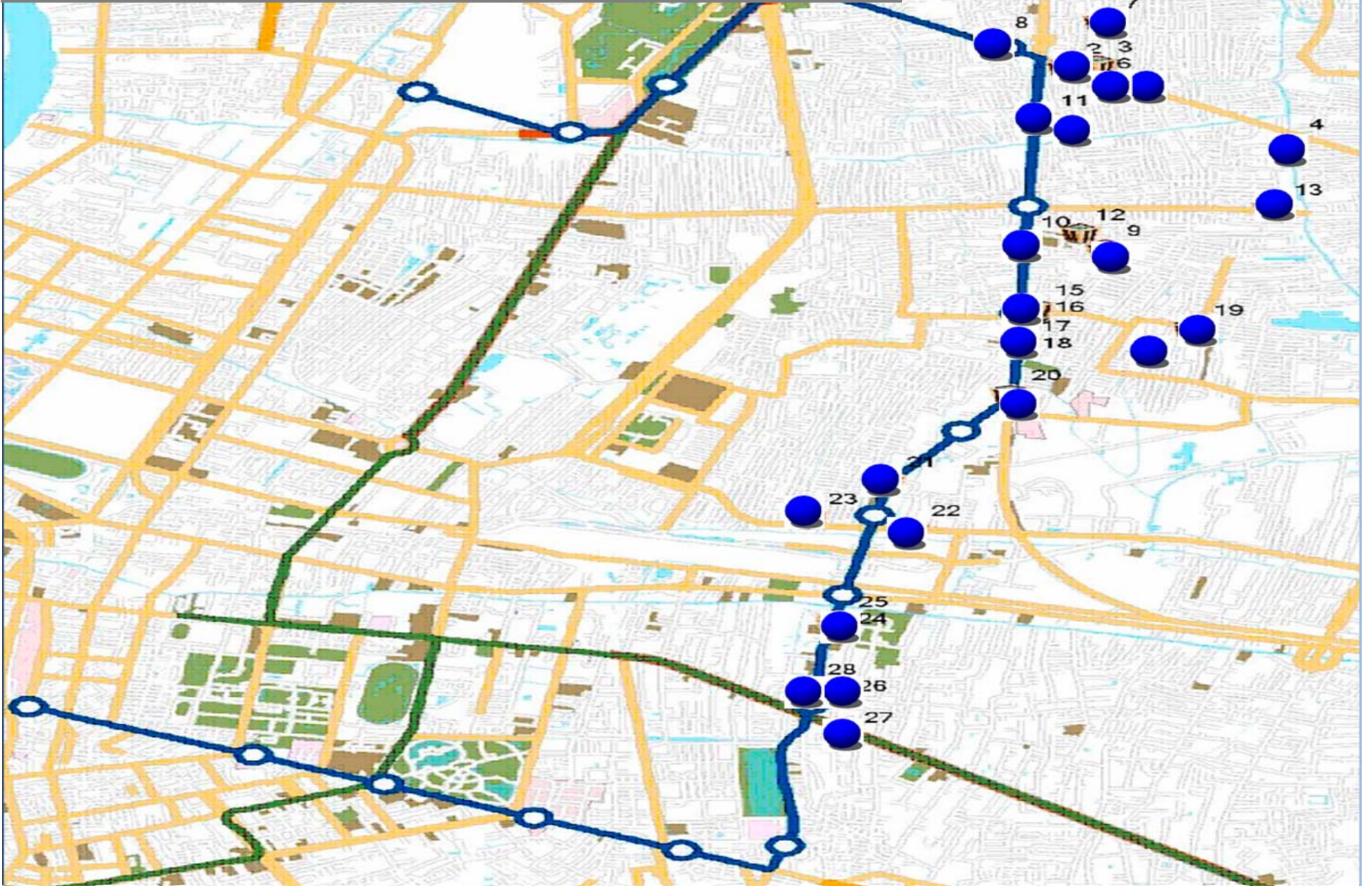




MRT Improve Property Price and Encourage Development



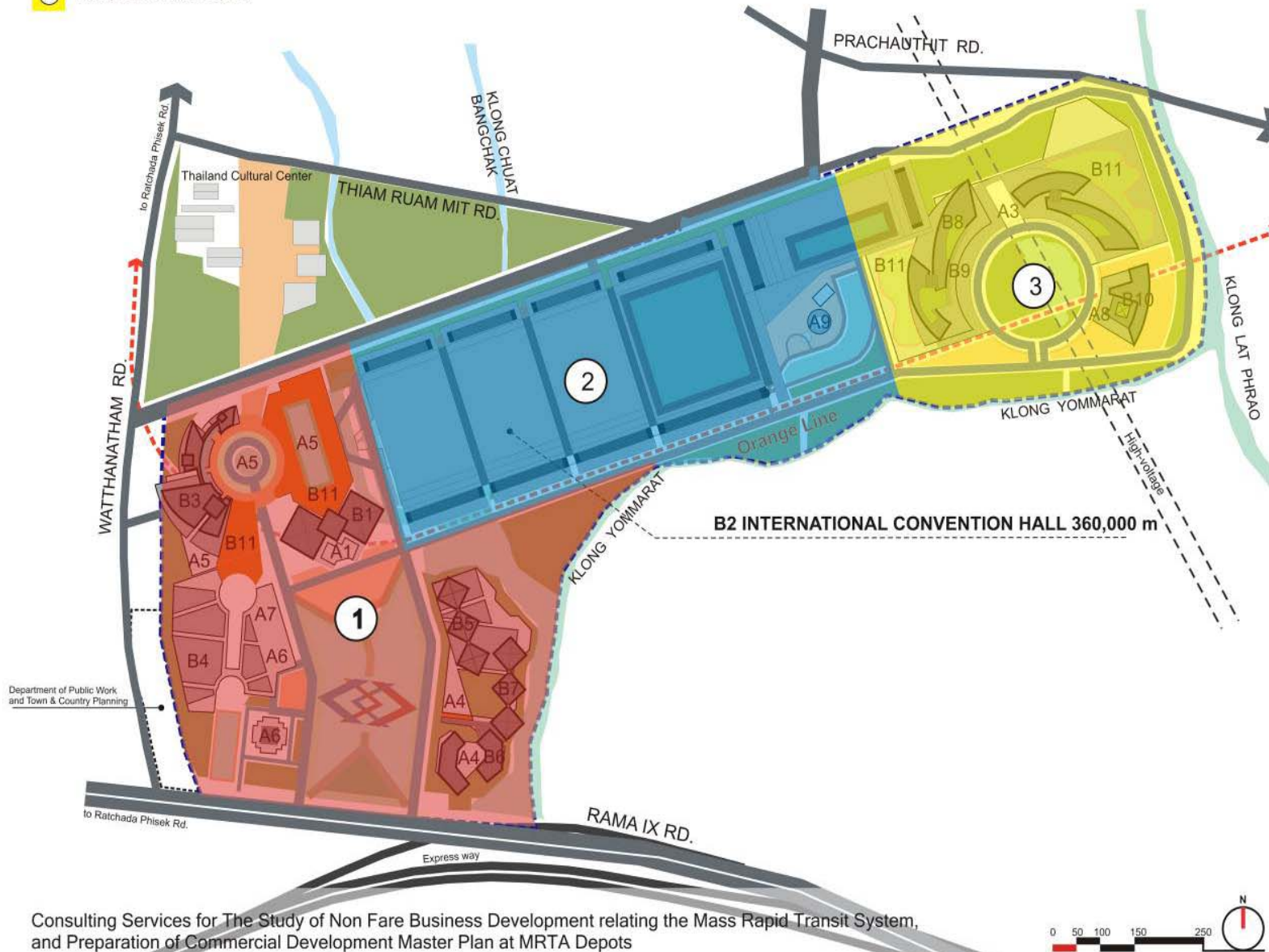
MRT Improve Property Price and Encourage Development



Case Study in MRTA Depot

DESCRIPTION OF AIR RIGHT DEVELOPMENT

- 1 BUSINESS AND SOCIAL ZONE
- 2 INTERNATIONAL CONVENTION HALL ZONE
- 3 RESIDENTIAL ZONE



MRTA DEPOT DEVELOPMENT MASTER PLAN

- A1 : MRTA HEADQUARTERS
- A2 : DEPOT AREA , WORKSHOP AND STABLING AREA FOR BLUE LINE
- A3 : DEPOT AREA , WORKSHOP AND STABLING AREA FOR ORANGE LINE
- A4 : PARK & RILDE BUILDING
- A5 : ROLLING STOCK AND EQUIPMENT ASSEMBLY SHOP (FUTURE WORKSHOP EXPANSION)
- A6 : MRTA TRAINING CENTER / INDOOR SPORT
- A7 : MRTA MUSEUM
- A8 : ORANGE LINE STATION
- A9 : BMCL HEADQUARTERS

AIR RIGHT DEVELOPMENT : PODIUM & TOWER

- B1 : MRTA HEADQUARTERS TOWER (EXPANSION)
- B2 : INTERNATIONAL CONVENTION HALL (CASE STUDY)

MRTA CULTURAL PLAZA ZONE

- B3 : - BEST IN 75 PROVINCES (EXHIBITION HALL)
- CULTURAL PLAZA
- GOODS FOODS
- THAI ENTERTAINMENT

- B4 : THAI - EXPORT TRADE CENTER OFFICE

MRTA COMMERCIAL COMPLEX ZONE

- B5 : OFFICE TOWER/COMMERCIAL PODIUM
- B6 : LUXURY HOTEL
- B7 : CITY HOTEL

RESIDENTIAL ZONE

- B8 : RESIDENTIAL (TOWER)
- B9 : COMMUNITY (SCHOOL / HOSPITAL / LOCAL)
- B10 : COMMUNITY COMMERCIAL
- B11 : ROOF GARDEN

Consulting Services for The Study of Non Fare Business Development relating the Mass Rapid Transit System, and Preparation of Commercial Development Master Plan at MRTA Depots

Commercial areas layout for Hauli Khwang Development Master Plan

Factors Threatening of MRTA

- *Internality*
 - *Obsolete Rule and Regulation*
 - *Inflexibility in utilizing non-rail business on existing MRTA property*
- *Externality*
 - *Uncertainty in decision making level*
 - *MRTA has no flexibility in making decision*
 - *Low accessibility*
 - *Unflavored Infrastructure – road and Inter modal Transfer facilities*
 - *Too many studies – very few implementations*
 - *Feeder System - ??*
 - *Master Plan – consisting with other plan and too many revision*
 - *Lack of experiences on Thai consulting firm (easy to miss led – with no responsibility)*

Factors Contributing to Unpopularity of MRTA

- ***Low Transit Network Coverage***
 - *Incapable to execute transit master plan according to the plan schedule – cause distrust from potential customer*
- ***Inconsistency of Promoting Projects***
 - *No supporting facilities to serve station – like air-port rail link*
- ***Town Planning***
 - *Sub centers like Minburi, Taling Chan and etc. has no mass transport to serve*
- ***Local Authority***
 - *Pay no attention to assist other authorities in providing alternate road access to demand location- mostly only one route to station introducing congestion at station*

Solutions

- *All supporting plans need to be revised by professional*
- *All responding agencies need to implement project that supporting each other*
- *All implementing projects need to fill patronages' requirements*



THANK YOU

