



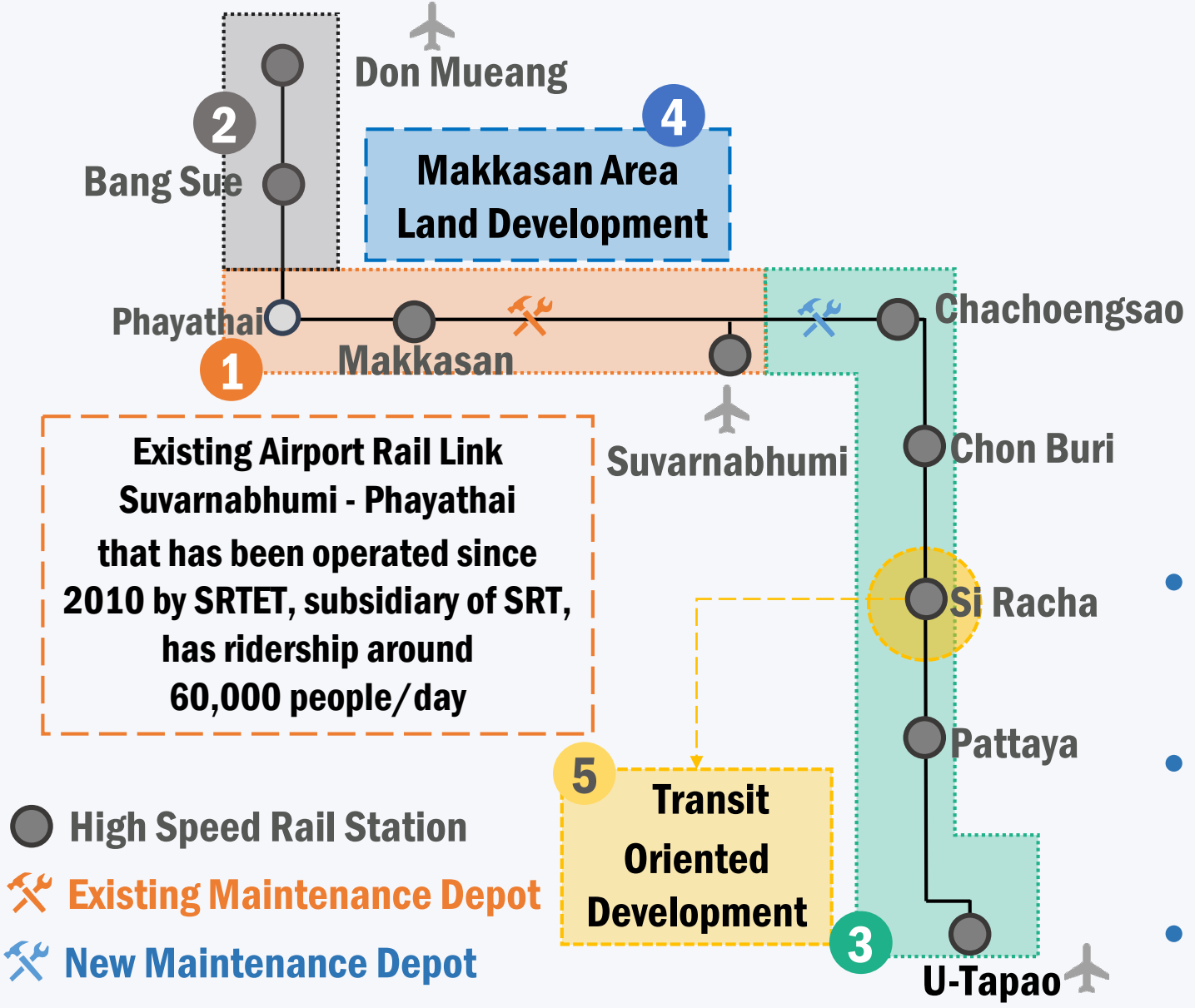
The Market Sounding for
The High Speed Rail Linked 3 Airports Project
Fast Track for the Thai Future

21 MARCH 2018

Agenda

- **Overview of High Speed Rail Linked 3 Airports Project**
 - **High Speed Rail**
 - **Makkasan Area Land Development**
- **PPP Option and Project Return**
- **RFP Document Preparation**
- **Q&A (Investors' Opinions)**

Project Scope

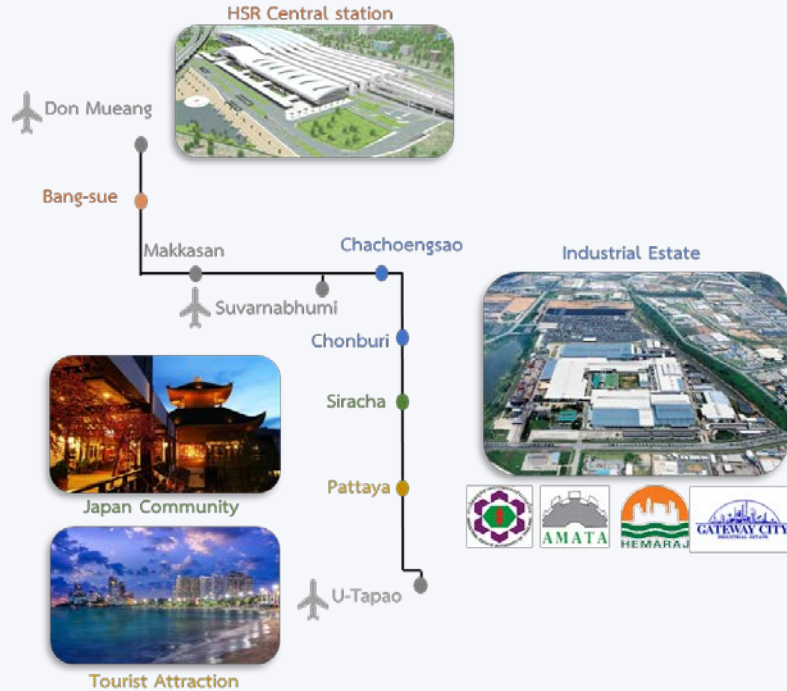


PROJECT

- 1 Existing ARL Suvarnabhumi-Phayathai 
- 2 ARL Extension Phayathai-Don Mueang 
- 3 High Speed Rail Bangkok-U-Tapao 
- 4 Makkasan Area Land Development 
- 5 Transit Oriented Development (TOD) 

- **Urban Line : Max 160 km/hr**
41 Min from Don Mueang to Suvarnabhumi
- **Inter-City Line : Max 250 km/hr**
101 Min from Don Mueang to U-Tapao
- **New Depot at Chacheongsao**

Project Overview on High Speed Rail



Daily Ridership Forecast

Year	City Line	High Speed Rail	Red Line
2023	106,010	41,190	138,700
2033	133,340	58,530	155,000
2043	162,420	72,060	198,140
2053	189,680	82,960	230,860
2063	201,320	87,620	245,430
2073	211,970	95,840	261,910

Ridership Forecast by Purpose

Year	Business Purpose	Travelling Purpose	General Purpose
2023	25.6%	24.6%	49.8%
2043	24.2%	30.6%	45.2%

Daily Ridership Forecast (Airport Related) in 2023

	Don Mueang	Suvarnabhumi	U-Tapao	Others	Total
Don Mueang	-	2,008	456	11,567	14,031
Suvarnabhumi	1,962	-	319	14,998	17,279
U-Tapao	537	343	-	1,044	1,924
Others	10,595	14,272	973	-	25,840
Total	13,094	16,622	1,749	27,609	59,074

Passengers connected to 3 airports estimated to be 17% of total ridership (33,234 people/day)

Output Specification and Level of Service

	Output Specification
Length of HSR	Approximately 220 km
Number of Stations	15 Stations
Maximum Design Speed	Suvarnabhumi - U-Tapao: 280 km/hr Don Mueang - Suvarnabhumi: same as current system
Maximum Operation Speed	Suvarnabhumi - U-Tapao: 250 km/hr Don Mueang - Suvarnabhumi: 160 km/hr
Operation Time	HSR: 06:00-22:00 City Line: 05:00-23:30
Trackwork	Standard Gauge 1,435 mm

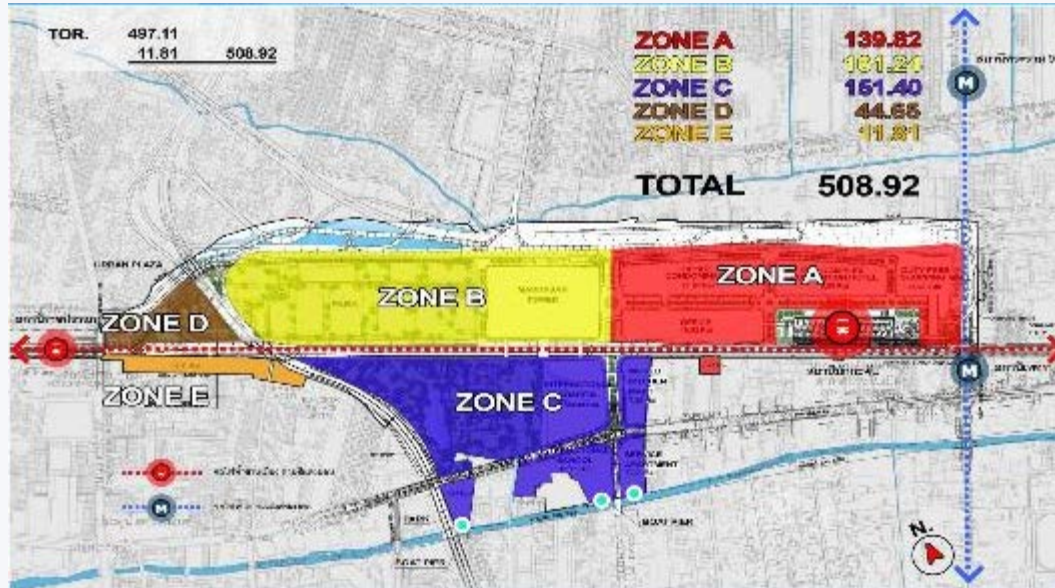
Signaling System

ETCS / CTCS / Digital-ATC

	Level of Service
Train Service Availability	HSR: 98% City Line: 99%
Train Service Punctuality	HSR: 98% City Line: 99%
Train Availability	> 99.5%
Platform Screen Door Availability	> 99.5%
Escalator and Elevator Availability	> 99%
Ticket Issuing Machine Availability	> 99%
Automatic Gate Availability	> 99.8%
Customer Convenience	<ul style="list-style-type: none">- Temperature controlled inside rolling stock- Customer convenience when buying ticket and in-out station

Project Overview of Land Development

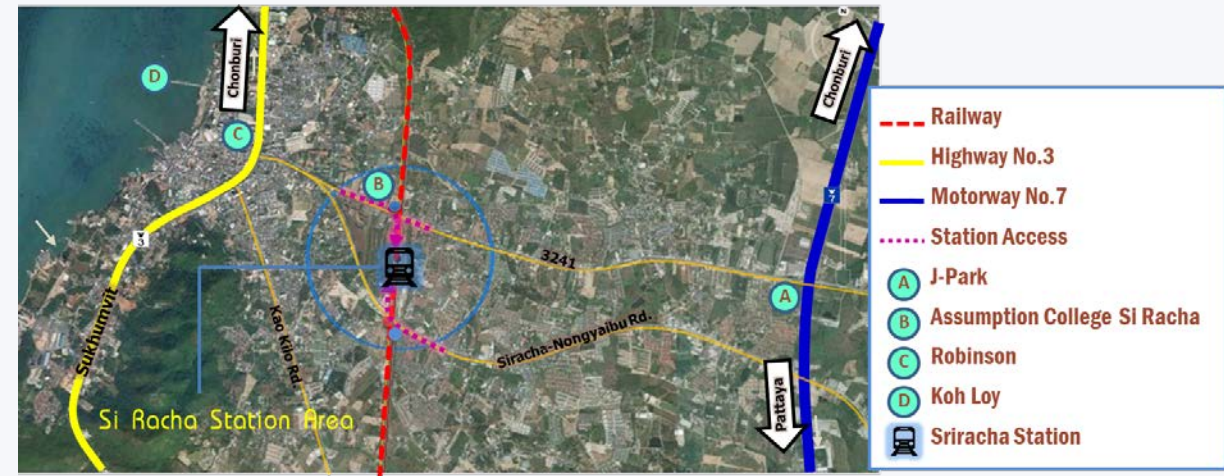
Around Makkasan Station



Zone A: 150 Rai : FAR 8:1
ARL Makkasan: 27.48 Rai

Rent: **Upfront Fees: 3,009 Million THB**
Rent during Construction: 25%, 50%, 75% of 1st operation yearly rent for years 1-3
Rent during Operation: 504 Million THB in 1st operation year
Rent Increase: 10% every 3 years

Around Si Racha Station



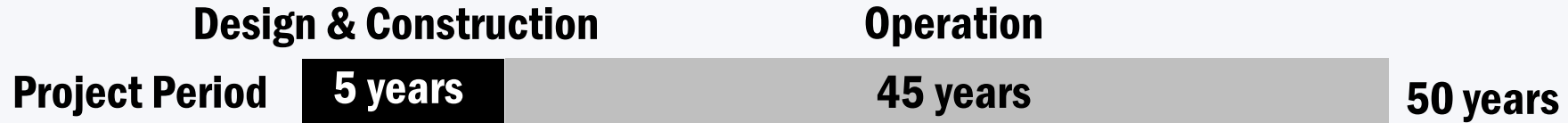
Area : 25 Rai

Rent: **Upfront Fees: 29 Million THB**
Rent during Construction: 25%, 50%, 75% of 1st operation yearly rent for years 1-3
Rent during Operation: 5 Million THB in 1st operation year
Rent Increase: 10% every 3 years

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Public and Private Sectors: Function, Responsibilities and Project Period



PPP Net Cost 50 Years



Railway

Lists	Responsibilities of Public Sector	Responsibilities of Private Sector
Land Acquisition and Hand Over	✓	✗
Relevant Rights	✓ Rail Operation Rights	✓ ARL Operation Rights
Civil Works (Other Project)	✗	✓
Civil Works	✗	✓
E&M	✗	✓
Rolling Stock	✗	✓
Operation and Maintenance	✗	✓
Collect Revenue from Fare and Commercials	✗	✓



TOD

Lists	Responsibilities of Public Sector	Responsibilities of Private Sector
Hand Over Land and Land Use Rights	✓	✗
Land Development	✗	✓
Public Utilities Development	✗	✓
Operation and Maintenance	✗	✓
Collect Revenue from the Development	✗	✓

Private sector pay land rent to SRT

State will provide subsidies to support Private sector

Estimated Project Capital Expenditures

Estimated Initial CAPEX	Total (MTHB)
Land Acquisition	3,570
Civil Works	120,515
E&M	24,712
Rolling Stocks (Initial)	15,491
Others	4,430
Total (Including Design)	168,718

Estimated Initial CAPEX	Total (MTHB)
Makkasan Area	40,193
TOD around HSR Station	3,513
Public Utility	1,449
Total (Including Design)	45,155

Estimated Initial CAPEX	Total (MTHB)
Right to Operate Existing ARL	10,671
Existing ARL Civil Works	22,558
Total	33,229



High Speed Rail

+



Makkasan Land Development

+



Existing ARL Cost

Government
 ≈
26,128
M THB

PPP
 ≈
220,974
M THB

Land Acquisition
 Existing ARL Civil Works

Civil Works
 E&M
 Rolling Stocks
 Project Management Consultant, ICE
 Right to Operate ARL
 Investment for Makkasan and Si Racha

Project IRR (Private's Perspective) 50 Years



Rail Business

NPV:  9,200

IRR: 6.85%

B/C: 1.06



Land Development

NPV:  30,100

IRR: 10.77%

B/C: 1.35



Total

NPV:  39,300

IRR: 8.40%

B/C: 1.18



Mixed-Used Building



EEC Head Quarters

Noted: Include 5 years' ramp-up period. Only in-out cash, and not debt, taken into account.
Discount Rate: 6.06% for rail business and 6.55% for commercial business

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RFP Document Preparation

Tender Qualifications

- **A single Juristic Person or Consortium (joint venture that isn't registered as juristic person) or Joint Venture (joint venture that is registered as a juristic person).**
- **All Juristic Person members shall be registered for at least 3 years.**

RFP Document Preparation (Cont'd)

Financial Qualifications

01

Net Worth

Total Assets- Total Liabilities
Average for the last 3 years

Lead Firm's Net Worth \geq 45,000 Million THB

Or

Lead Firm's Net Worth \geq 25,000 Million THB
and the combined Net Worth of the other Firm(s)
(not over 2 firms) \geq 20,000 Million THB
The Firm(s) in the combined Net Worth must have
at least 10,000 of its Net Worth

02

Letter of Intent & Cash & Cash Equivalent

Total \geq 120,000 Million THB

Letter of Intent \geq 120,000 Million THB¹

Or

Cash & Cash Equivalent \geq 120,000 Million THB²

Or

Letter of Intent + Cash & Cash Equivalent
 \geq 120,000 Million THB

¹Can combine for many banks

²Cash & Cash Equivalent - only lead firm counted

³After contract signed, **financial close required within 180 days**

RFP Document Preparation (Cont'd)

Financial Qualifications

EPC Experience

Tenderer shall have experience in the areas of infrastructure designing, construction and E&M supply.

Operation and Maintenance Experience

Tenderer shall have at least 5 years' experience in operation and maintenance services for high speed rail, with 250 km/hr operating speed.

Land Development Experience

Tenderer shall have experience in real estate development as an investor or developer, or design & construction, or real estate management project.

Tenderer's sub-contractor's or supplier's experiences may be submitted to qualify the Tender Qualifications.

RFP Document Preparation (Cont'd)

RFP Fee



Every Tenderer including all parties in the joint venture must pay 2 M THB each for the RFP fee

Bid Bond



4,000 M THB

Tender Evaluation Fee



Every Tenderer must pay 2 M THB for an evaluation of the tender.

Contract Signing Fee



Successful tenderer shall pay 2 M THB for Contract signing fee

Contract Security



Phase 1 Construction/Rolling Stock/E&M 12,000 M THB
Phase 2 Operation & Maintenance and Land Development 4,000 M THB

RFP Document Preparation (Cont'd)

Evaluation Criteria

01

Envelope 1: General Qualifications

PASS/FAIL Evaluation for general qualifications

02

Envelope 2: Technical Qualifications

Scoring for technical qualifications. (Over 80 points required for a PASS)

03

Envelope 3: Financial

- **BOQs for civil works and E&M systems in relation to business and financial plans**
- **Business Plan, including target customers, marketing plan, operation plan, risk and risk mitigation**
- **Financial Plan, including financial model in excel files, financial assumption, detailed CAPEX and OPEX**
- **Schedule of Government support**
- **Schedule of Benefits Sharing to Government**

The successful tenderer is the tenderer who provides the highest remuneration to SRT in term of Net Present Value (NPV) .

Note: Envelope 3 will only be opened when Envelopes 1 and 2 got a PASS evaluation.

RFP Document Preparation (Cont'd)

04

Envelope 4: Additional instructions for project improvement

The Tenderer may provide additional instructions for project improvement to increase ridership and others. And whether to open this envelope (only of the successful tenderer) or not is subject to SRT's sole consideration.

**Successful
Tenderer**



**Must register
New Special Purposed Vehicles (SPV)
before contract signing**

Debt to Equity Ratio (D/E ratio) of not exceeding 3 during contract period (50 years), is required

- **Ownership of Thai firms total > 51% of SPV**
- **Lead firm's ownership requirement >= 30% of SPV**
- **Minimum other firms' requirement >= 5% of SPV**
- **Paid-up capital before signing contract 4,000 Million THB**
- **Paid-up capital before HSR operation 36,000 Million THB**

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Thank You

ขอบคุณครับ
