กระทรวงคมนาคม กรมทางหลวง

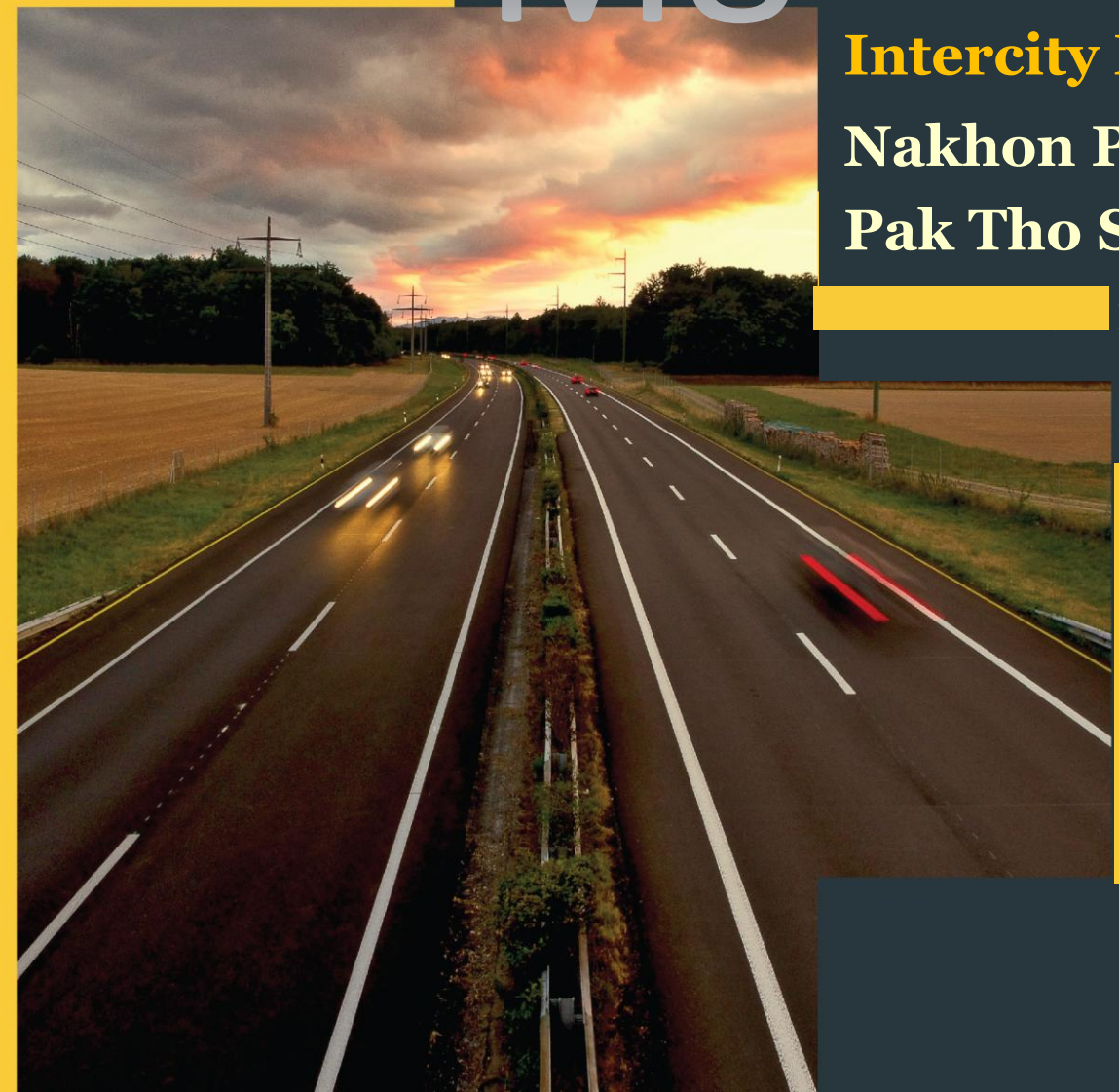
M8

Market Sounding Seminar

for **the Nakhon Pathom – Cha Am Intercity Motorway Project :**

Nakhon Pathom - Talat Chinda - Pak Tho Section

Private Partnership [PPP] Scheme



Market Sounding Seminar

21 July 2026

Disclaimer

The content in this document, including any clarifications provided by the Department of Highways or consultants during the market sounding meeting, shall serve solely as preliminary information aimed at incorporating the viewpoints of the private sector into the project. It does not establish any boundaries or conditions pertaining to the selection of private party.

Additionally, the information and explanations mentioned may be subject to modifications or additions in the future. The Department of Highways does not provide certification or guarantees and disclaims responsibility for the completeness and accuracy of the information and explanations provided.

This document is primarily used for Market Sounding purpose and may be amended or changed afterwards.

Seminar Outline

- Market Sounding Objective
- Project Overview
- Project Readiness
- Project Feasibility
- Project Risk Analysis
- Readiness of relevant government agencies in formulating and implementing the project

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Market Sounding Objectives

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Market Sounding Objectives

- As the private sector has more **expertise, experience, and technology in developing project,** Department of highways would like to maximize the private sector's participation in the project.

- Essentially, the purpose of the market sounding is **to inform the private sector of this investment opportunity**, and to gather the private sector's **feedbacks**.
  - Project Cost
  - Traffic Demand and Toll Revenue Forecast
  - PPP Model
  - Project Risk
  - Risk Allocation between Government and Private Sectors
  - PPP Promotional Measures and Risk Reducing Measures
  - Project Financial Assumptions
  - Payment Mechanism
  - Private Party's Qualification for Investment

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Market Sounding Structure

Market Sounding Seminar

21 July, 2026 08:30 a.m. – 12:00 p.m.

Zoom Meeting

Key objectives :

- To inform the private sector of an investment opportunity
- To provide the private sector with brief project information
- Group Q&A session – To briefly gather private sector's interest in the project and concerns

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Project Overview

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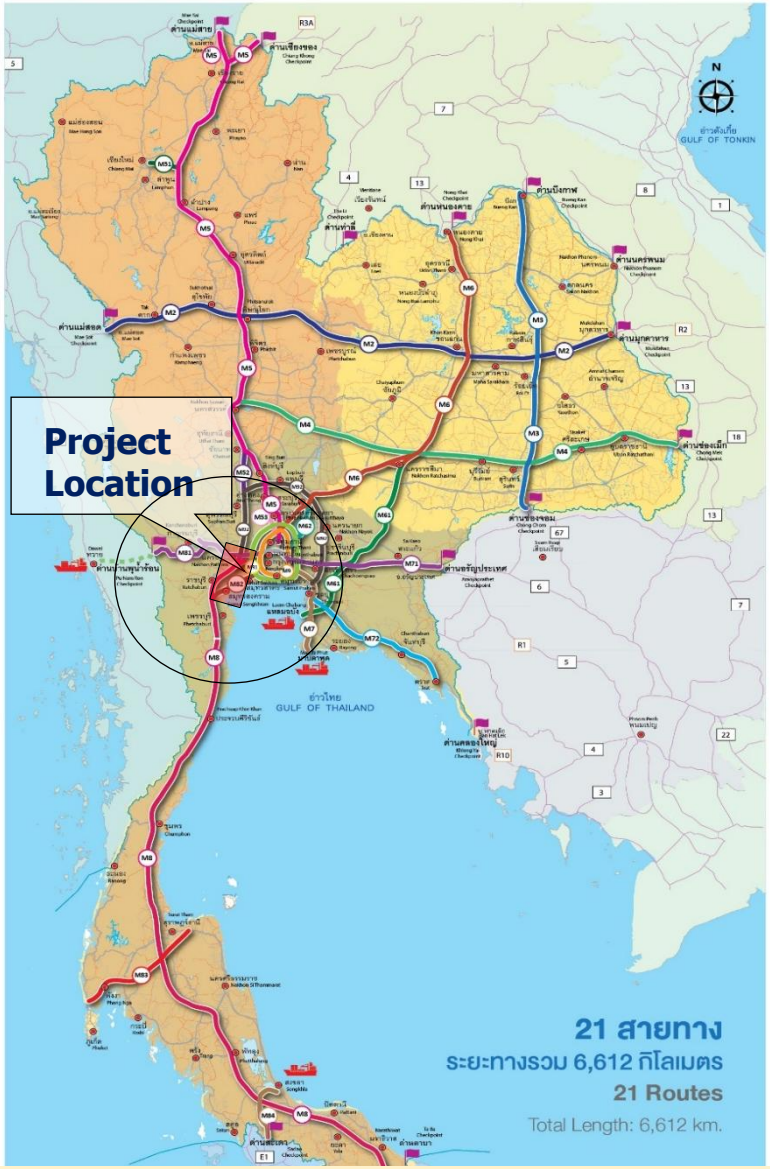
Project Background and Objectives



Background :

- Nakhon Pathom – Pak Tho motorway Project is the part of motorway No.8
- To be the 20-Year Master Plan of the Intercity Motorways (2017-2036)
- To be the Intercity Motorway Development Phase 1
- To be the strategic plan for private investment in state affairs 2015– 2019 prescribed by State Enterprise Policy Office

Objective :

- To develop the Motorway Network to southern region
- To be an alternative route to the southern region
- To facilitate freight transportation and encourage travelling
- To promote Thailand to be the transportation hub of region

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History and Current Status

Nakhon Pathom – Pak Tho (M8)
Intercity Motorway Project

1997

Master Plan for Intercity Motorway Approved by Cabinet

2009

Technical and Economic Feasibility Study Completed

2012

EIA APPROVED

- **Approval of EIA Report**

2014

Detailed Engineering Design Completed

2018 - 2021

2018

- **PPP Board approved the project principle**

2021

- **PPP Board assigned DOH and ministry of transportation to review the results of the study and analyze the project in accordance with the present**

2025

EIA APPROVED

- **Approval of Revised EIA Report**

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Route Alignment

- **Beginning of project :** connecting from Bangyai – Kanchana Buri Intercity motorway (M81)
- **End of project :** connecting to – Pak Tho - Cha Am Intercity motorway (M8)
- **Total Distance :** 61 km. (approx.)

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Typical Section

Typical Section : 4-6 lane elevated with Service Road

- 4-6 lane highway, width 3.60 meters per lane with outer shoulder and inner shoulder.
- The service road is a 2 lane highway, width 3.00 meters per lane with shoulders on each side.

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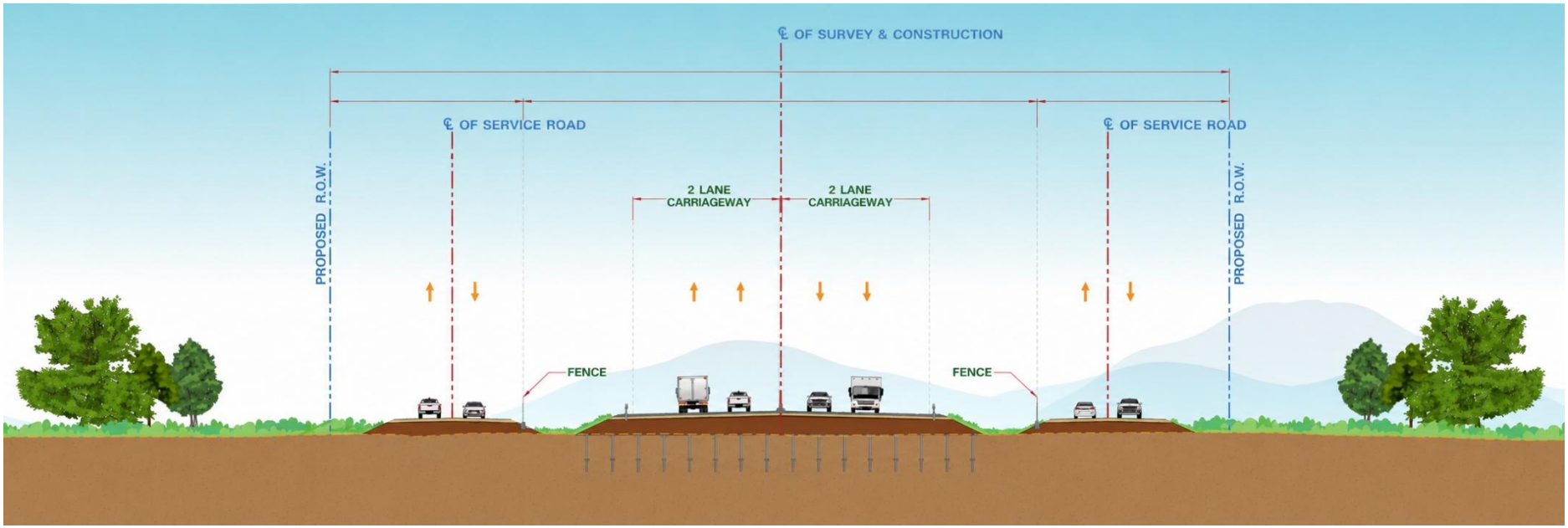
Typical Section : 4-lane At-grade with Service Road

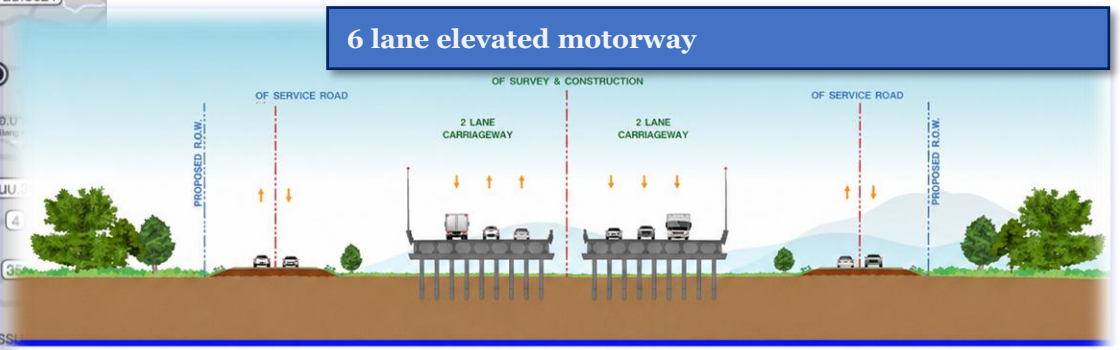


- 4 lane highway, width 3.60 meters per lane with outer shoulder and inner shoulder.
- The service road is a 2 lane highway, width 3.00 meters per lane with shoulders on each side.

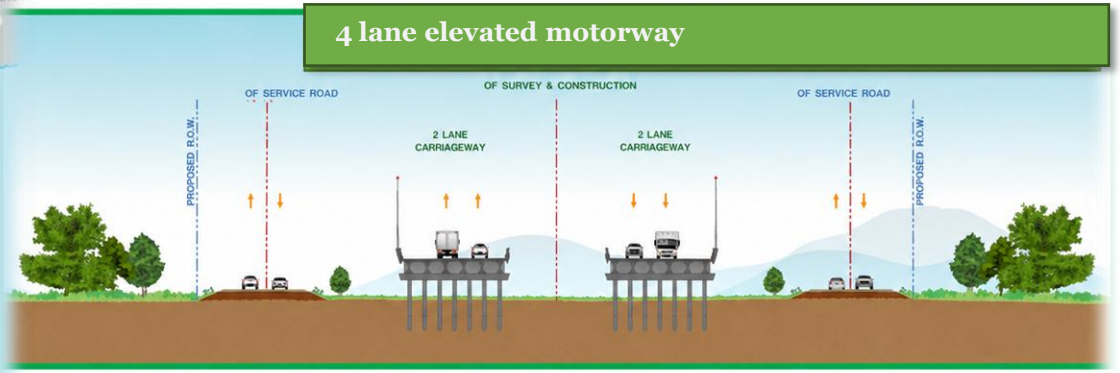
Typical Section

Typical Section

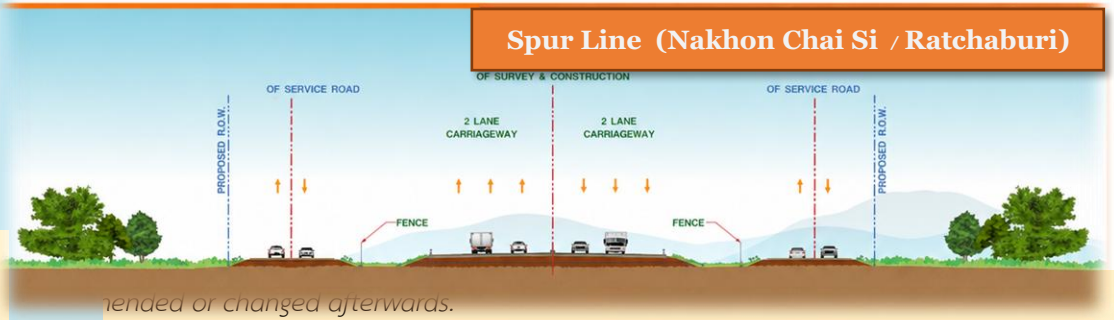
6 lane elevated motorway



4 lane elevated motorway



Spur Line (Nakhon Chai Si / Ratchaburi)



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Entrance / Exit Point

6 Entrance / Exit Points

1. Nakhon Chai Si Interchange
2. Talat Chinda Interchange
3. Bang Phae Interchange
4. Ratchaburi Interchange
5. Wat Phleng Interchange
6. Pak Tho Interchange

2 Motorway Connections

1. Bang Yai – Kanchanaburi (M81)
2. Pak Tho - Cha Am (M8)

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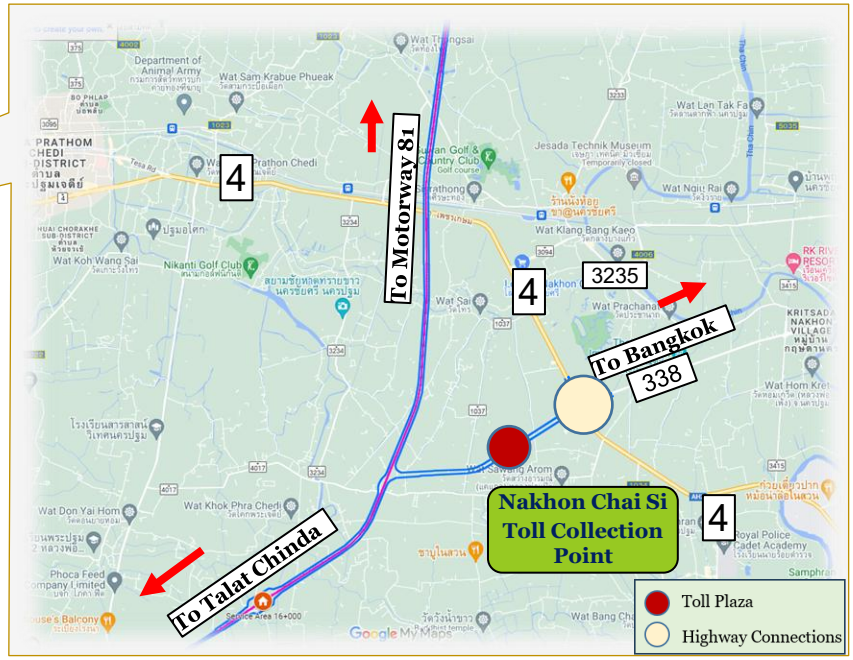
Nakhon Chai Si Interchange



- This is the interchange connecting to Phet Kasem and Borommaratchachonnani Road by improving of former Nakhon Chai Si intersection.
- Its function is to serve traffic in Nakhon Chai Si, Mueang and Sam Pran districts of Nakhon Pathom province, and also traffic from Bangkok.

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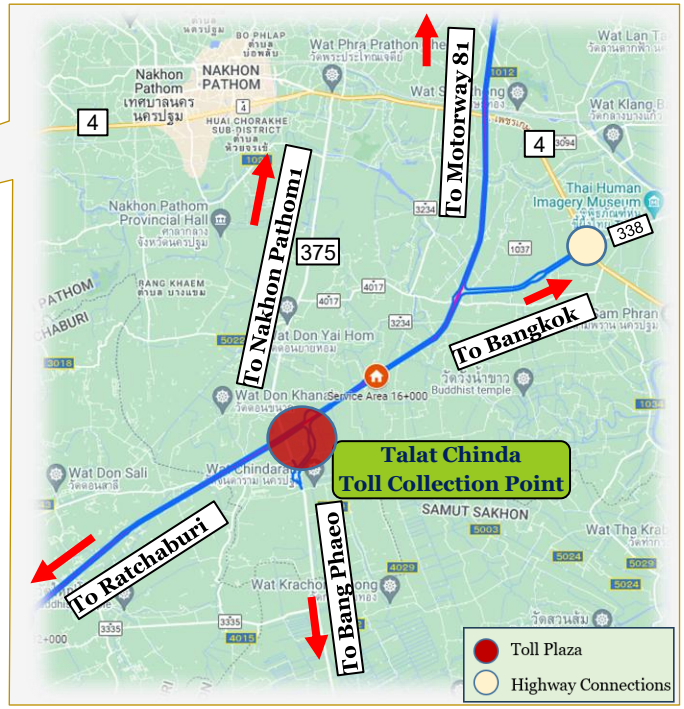
Talat Chinda Interchange



- This is the interchange connecting to Highway No.375.
- Its function is to serve traffic in Mueang and Sam Pran districts of Nakhon Pathom province, and Banphaeo districts of Samut Sakhon province.

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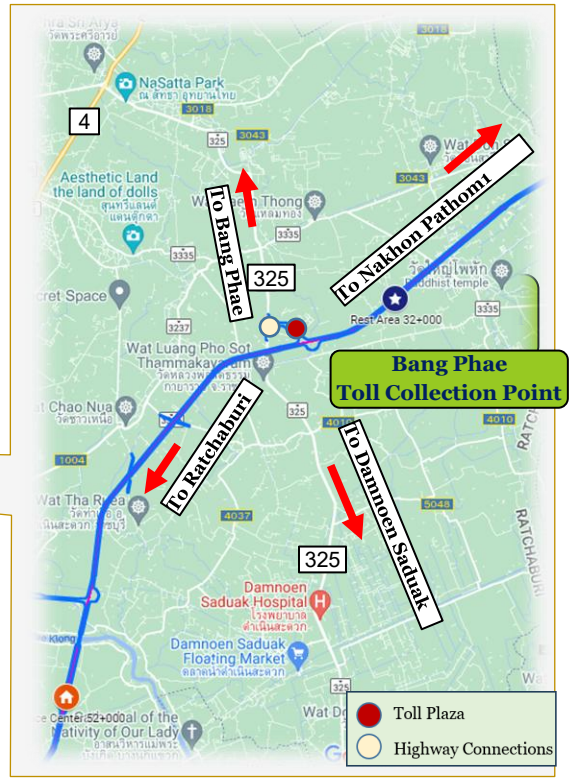
Bang Phae Interchange



- This is the interchange connecting to Highway No.325.
- Its function is to serve traffic in Bang Phae and Damnoen Saduak districts of Ratchaburi province.

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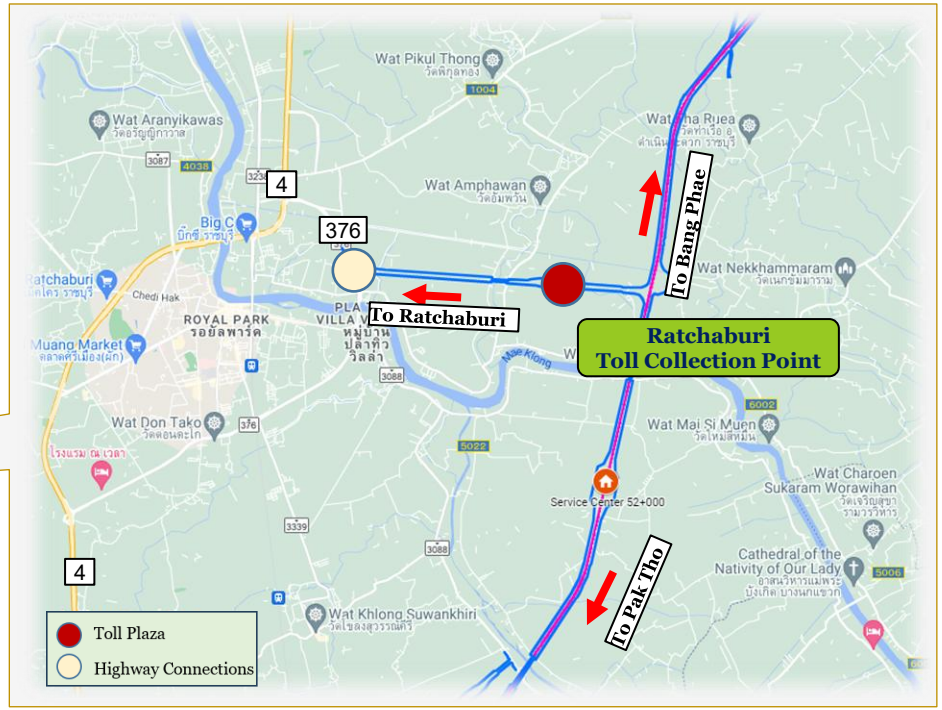
Ratchaburi Interchange



- This is the interchange connecting to Ratchaburi Bypass Road.
- Its function is to serve traffic in Mueang districts of Ratchaburi province.

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Wat Phleng Interchange

- This is the interchange connecting to Highway No.3088.
- Its function is to serve traffic in Wat Phleng and Mueang districts of Ratchaburi province.

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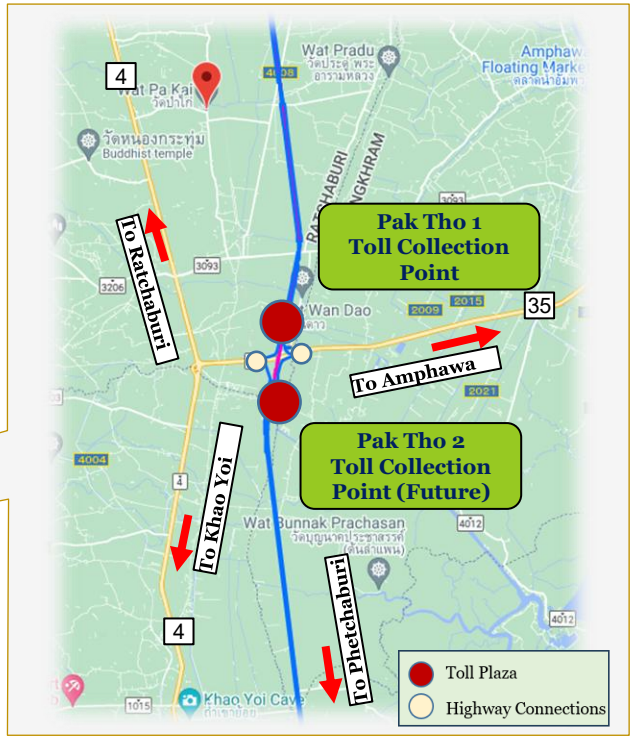
Pak Tho Interchange



- This is the interchange connecting to Highway No.35 (Rama 2 Road).
- Its function is to serve traffic in Pak Tho and Mueang districts of Samut Songkhram province.

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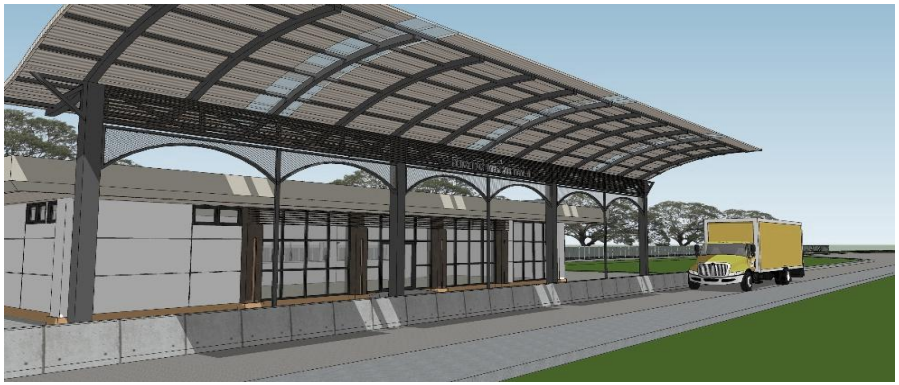
Toll Collection System & Weighing Station

Toll Collection System :

- Distance Base Toll Collection System (Closed System)
- Type of Toll Collection :
  - Manual Toll Lane (MTC)
  - Multilane Free Flow (M-Flow)



Weighing Station :

- Weigh in Motion System (WIM)
- Static Weighing System (SWS)

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Rest Area

A **Service Area : Km. 16**

- **Area size approximately 25 rai.**

B **Rest Stop : Km. 32**

- **Area size approximately 10 rai.**

C **Service Center : Km. 56**

- **Area size approximately 40 rai.**

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Project Phase and Cost

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Project Phases

Phase 1 : Design and Construction (3-6 years)

Phase 2 : Operation and Maintenance (Maximum of 30 years)

2

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Project Phase and Cost

Phase 1 : Civil work Construction

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Phase 1 : Civil work Construction

- The project design is a **4-6 lane at-grade and elevated motorway**, with 3.6 meters lane with outer shoulder and inner shoulder**, with 2 lane service roads along the route** with 3.00 meters lane with shoulders on each side

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Toll collection system

Toll collection system : **Close System**, in which users pay at the exiting ramps and the toll fees are classified based on vehicle types.

- **Manual Toll Lane (MTC)**
- **Multi lane free flow System (M-Flow)**

There are 6 **Toll Collection Point** as follow :

- 1. Nakhonchaisri
- 2. Talat Chinda
- 3. Bang Phae
- 4. Ratchaburi
- 5. Wat Phleng
- 6. Pak Tho-1

Traffic Management and Control System

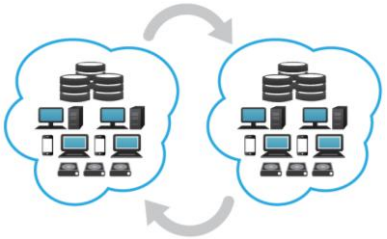
Designed to **ensure efficiency and safety for road users**, which shall include but not limited to the following;

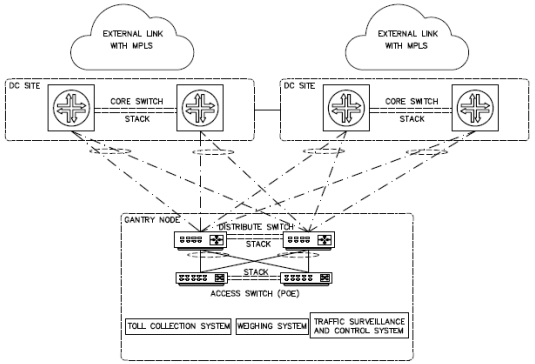
- Traffic Data Collection System
- Radio Communication System
- Emergency Telephone System
- Closed–Circuit Television System (CCTV)
- Variable Message Sign
- Automated Speed Enforcement System

Phase 1 : System Work Construction and Installation

Asset Management System

Communication Network System





Power Distribution System

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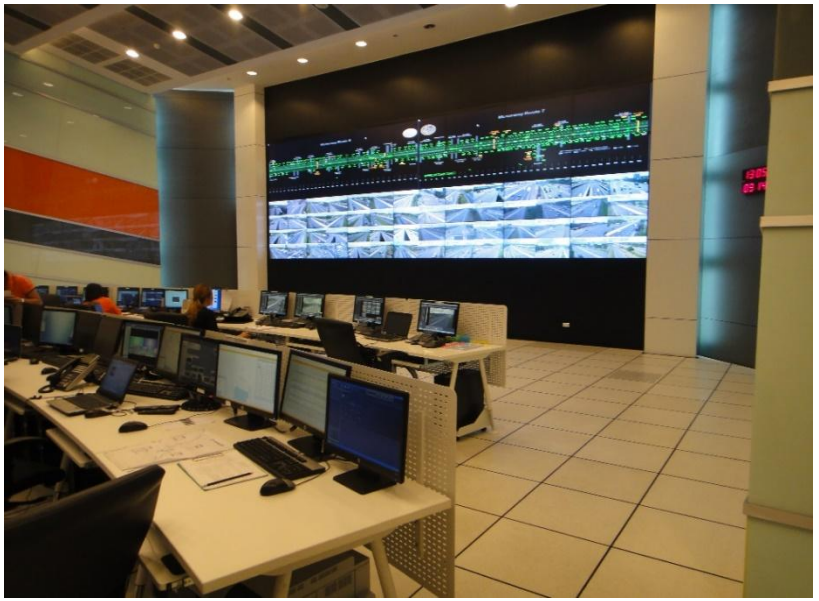
Central Control Building (CCB)



- The Central Control Building (CCB) shall be **located in Ratchaburi Toll Collection Point.**

- It will serve as a central traffic control center for **managing traffic flow** and **facilitating motorists** to ensure their safety.

Operation and Maintenance Center

The Operation and Maintenance Center shall be **located in Ratchaburi Interchange**, The Private Sector shall provide for

- **overall management and administration**.
- **for storage** of maintenance and repair materials, equipment, machine, as well as the yard area for stacking or heaping of materials to be used.

Operation And Maintenance Center

Operation And Maintenance Unit

Phase 1 : System Work Construction and Installation

Agency Buildings

The Private Party shall design and construct the Agency Buildings including various buildings as follows

(a) DOH' s Superintendent office at Ratchaburi toll Collection Point

(b) Highway Police Station at Ratchaburi toll Collection Point

(c) Rescue Building at Talat Chinda, Pak Tho-1 and Tha Yang toll Collection Point

(c) Agency Residence at Ratchaburi Interchange

Rest Area Project

The Private Party shall design and construct the Rest Area in accordance with DOH standards, with the responsibilities split as detailed below:

Private Sector Responsibilities	Government Sector Responsibilities
• Design and construction of all building structures and core infrastructure. • Full hardscape and extensive softscape (landscaping) within the boundary. • Design and installation of all primary on-site utility systems (electric, water, drainage) within the Rest Area perimeter.	• Initial clearing, grading, and earthwork preparation. • Perimeter fencing and secure area definition. • Provision of necessary off-site Service Roads. • Extension and connection of main utilities (Electricity, Water, Drainage) from the Public Drainage Canal to the Rest Area boundary.

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Project Phase and Cost

Phase 2 : Operation & Maintenance

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Phase 2 : Operation

Toll Operation & Management

The private sector shall be responsible for toll operation and management using **Closed toll collection system** with a capability of **vehicle classification**, and toll fees will be **collected at the exits**.

Automated Speed Enforcement

the private sector shall **provide and operate automated speed detectors**, as well as facilitate and coordinate with government officers

Customer Service Center

shall be operated by the private sector to **provide all necessary services of the project**, such as M-Flow registration, providing traveler information, receiving and managing any transaction complaints.

Traffic Surveillance and Detection and Dynamic Traveler Information

The private sector shall perform the action of **observing traffic conditions**, detecting incidents, and assembling information through automated processes for traffic operation efficiency and analysis.

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Phase 2 : Operation

Traffic Incident Management

The private sector shall **offer traveler assistance service for all incident and emergency cases** to ensure safety and convenience of travelers

Highway Police Support

The private sector shall provide supporting staffs, vehicles, and related equipment to **support the highway police's operations, as specified**.

Call Center Service

Call Center Services / Emergency Telephone Number shall be **available all the time (24/7)** in order to provide all necessary emergency messages, such as route guidance and traffic information, and to receive any emergency messages from travelers.

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Civil Work Maintenance

Highway Maintenance

The private sector shall **maintain all the roadway in a good condition**. A preventive maintenance shall be applied to ensure safety and serviceability of the project.

Super and Sub Structure Maintenance

The private sector shall **maintain both super and sub structure of the project**, aligned with DOH's standards and protocols, to ensure their sufficient and safe conditions.

System Work Maintenance

The private sector shall **consistently implement system work maintenance**, together with a preparation of **maintenance plan** to ensure system work serviceability. The system work **spare parts** shall be sufficiently maintained to the demand for replacement and ensure operation service level.

Rest Area

OPERATION

MANAGEMENT COST

- Property Management Contract
- Maintenance Services
- Security Services
- Cleaning Services
- Gardening Services

DIRECT COST

- Electricity Cost
- Water Cost
- Telephone / Internet Cost
- Waste Collection Cost
- Septic Waste Pumping Cost

INDIRECT COST

- Office Supplies & Consumables
- Project Insurance Cost

MAINTENANCE

ROUTINE MAINTENANCE (ANNUAL)

- General Maintenance Works
- Pavement Maintenance Works
- Fuel Station Maintenance

PERIODIC MAINTENANCE (LIFECYCLE-BASED)

- Internal Roads and Parking Area Rehabilitation
- Landscape and Softscape Area Rehabilitation
- Building Rehabilitation
- Fuel Station Rehabilitation
- Building Systems and Operational Equipment Rehabilitation
- Pedestrian Overpass Rehabilitation

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Investment Cost

Investment Cost
62,700 Million baht

- Land acquisition and compensation
  12,800 Million baht
- Design & Supervision
  700 Million baht
- Civil Work
  44,400 Million baht
- Rest Area
  1,300 Million baht
- System Work
  3,500 Million baht

Remark : The project investment cost presented is a preliminary estimate and is currently being updated to reflect current economic conditions.




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Operation & Maintenance Cost

Operation & Maintenance Cost
56,103 Million baht

Figures are of preliminary and indicative only, base on the Public Sector Comparator ***(PSC) scheme assumption 30 years***

Start-up Cost
3 Million baht

Operation Cost (Main road)
28,400 Million baht

Maintenance Cost (Main road)
25,200 Million baht

Operation Cost (Rest Area)
1,300 Million baht

Maintenance Cost (Rest Area)
1,200 Million baht

Remark : The project investment cost presented is a preliminary estimate and is currently being updated to reflect current economic conditions.




Project Cost

Project Cost
118,803
Million baht

Figures are of preliminary and indicative only, base on the Public Sector Comparator **(PSC) scheme assumption 30 years**

Investment Cost
62,700 Million baht

Land acquisition and compensation
12,800 Million baht

Detail & Supervision
700 Million baht

Civil Work
44,400 Million baht

System Work
3,500 Million baht

Rest Area
1,300 Million baht

Operation & Maintenance Cost
56,103 Million baht

Start-up Cost
3 Million baht

Operation Cost
29,700 Million baht

Maintenance Cost
26,400 Million baht

<u>Remark</u> : The project investment cost presented is a preliminary estimate and is currently being updated to reflect current economic conditions.

Project Development Timeline

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Project Development Timeline

2026

PPP Appraisal Report to be completed

2027

Project Approval and PPP Selection Process

2028 - 2033

Construction

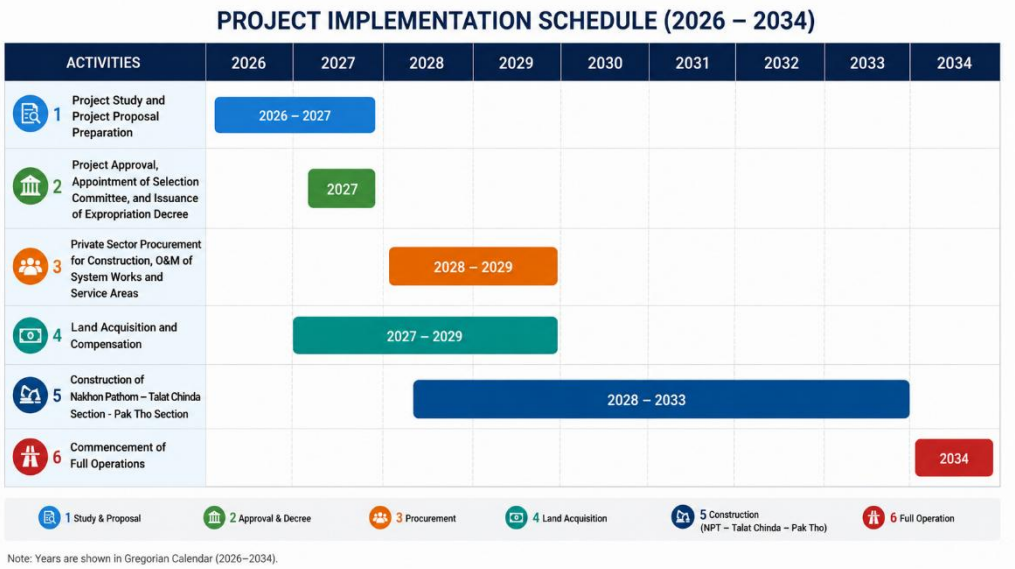
- Civil Work : 5 Years
- System Works and Service Area : 3 Years

2027 - 2029

Land Acquisition and Compensation

2034

Operation Commencement



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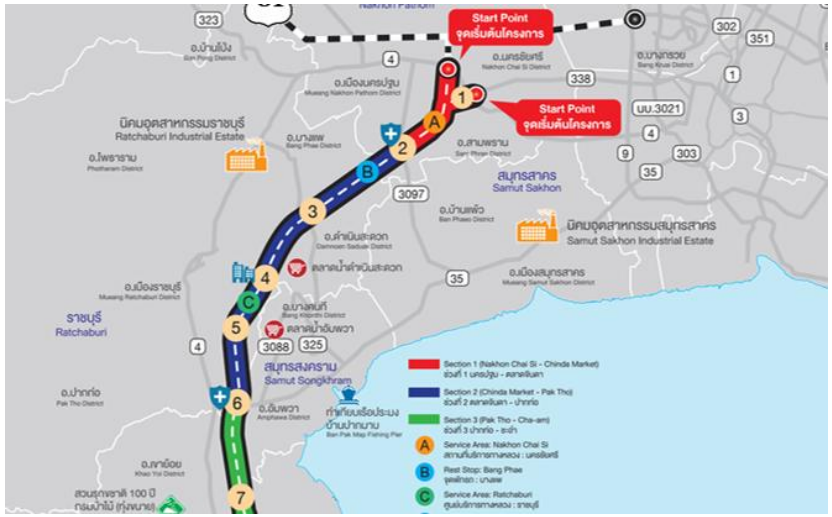
Rest Area Development Timeline



Rest Area Development Timeline

The Private Sector shall be entitled to develop and operate each site in phases. The development phasing, including the investment timeline and the area developed in each phase, is currently under consideration and will be determined by the Department of Highways.

The development and subsequent expansion of the Rest Areas shall comply with the requirements of the Department of Highways and all applicable laws, regulations, and rules.

Site			Total Area (Approx.)
A	Km.16	Outbound	25 rai
Service Area	(Approx.)	Inbound	25 rai
B	Km.32	Outbound	10 rai
Rest Stop	(Approx.)	Inbound	10 rai
C	Km.56	Outbound	40 rai
Service Center	(Approx.)	Inbound	40 rai

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Project Readiness

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Project Readiness

(1) Consistency and Readiness of Other Projects

- Connect to the Bang Yai - Kanchanaburi Intercity Motorway Project (M81)
- Connect to the Cha Am - Chumphon Intercity Motorway Project (M8)

(2) Readiness regarding the acquisition of property rights or land expropriation

- DOH will enact Royal Decree for the expropriation of land required for the development of the Project

(3) Legal Readiness

- Registration of Highways: DOH will register Motorway No.8 as special highways
- Law enactment relating to collection of Toll Fees: DOH will proceed with the enactment of Ministerial Regulations Prescribing fees for Use of Highways by Auto Vehicles on Motorway No. 8, and will issue the Notification of Department of Highway regarding Determination of Toll Fee Payment by Electronic Means on Motorway No. 8
- Standard of Rest Area: DOH has already issued Department of Highways Regulations RE: Standards and Characteristics of Rest Areas in Motorways and Concession Highways B.E. 2566

(4) Environmental Readiness

Project Feasibility

Traffic Demand and Toll Revenue Forecast

Assumption

- The base model was prepared to simulate and replicate exciting traffic condition along the corridor was used in the **forecast over 2034 to 2063 with the defined assumptions**.
- Population growth and economic activity of the area such as **GDP growth**.
- **All future projects in the study area** are included.
- Traffic forecasts have been **applied for each type of vehicles.**

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Toll Rate

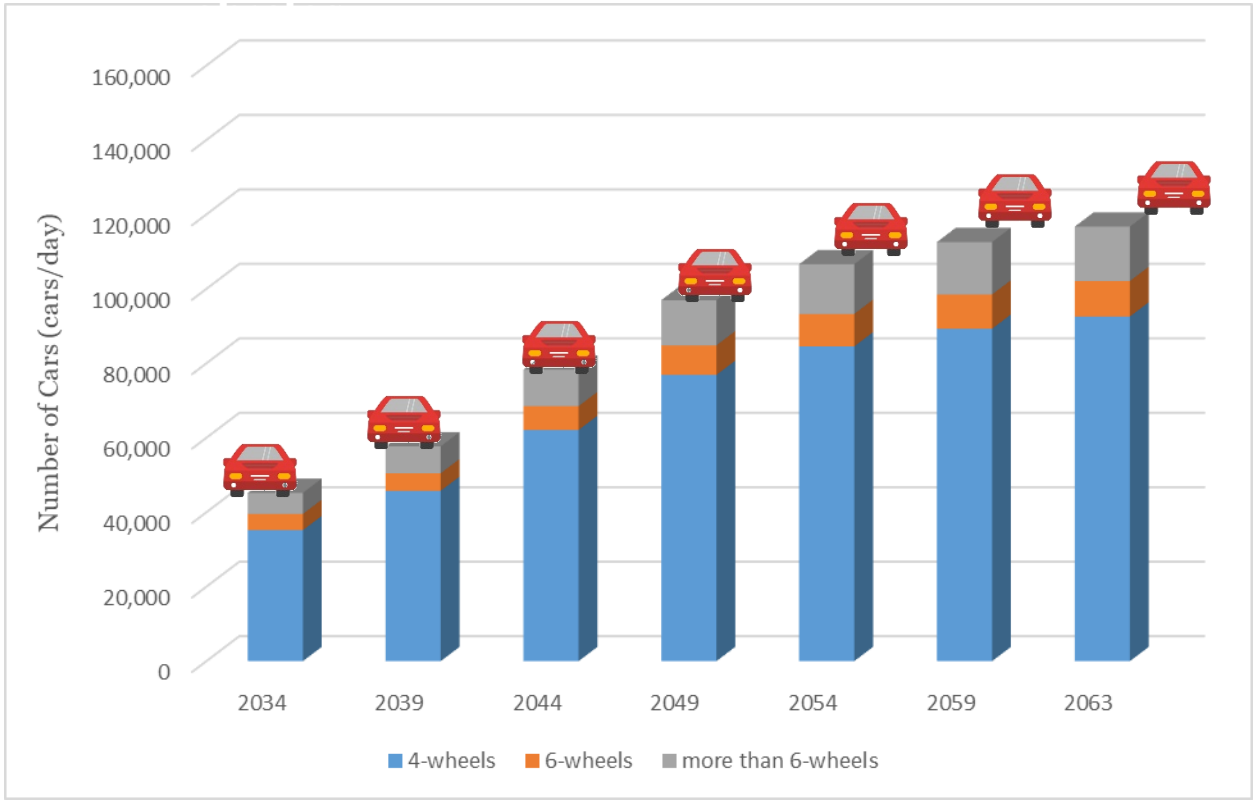
- The toll collection system shall be an closed toll system, in which users pay at the exiting and the toll fees is classified based on vehicle types

Remark : Toll Rate at Current Prices

Traffic Demand Forecast

The project is expected to have an average traffic volume of **45,204 vehicles per day** when its operation starts **(in 2034). In 2063**, the traffic is predicted to reach approximately **116,726 vehicles per day**

Total Traffic (30 years) **959 million vehicles**



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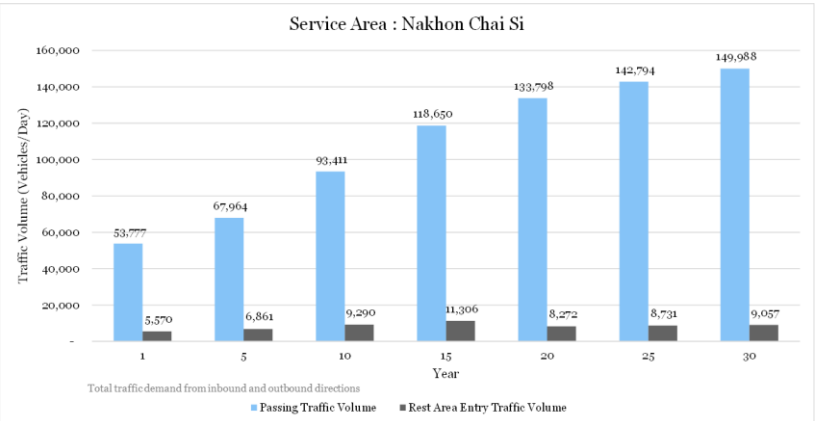
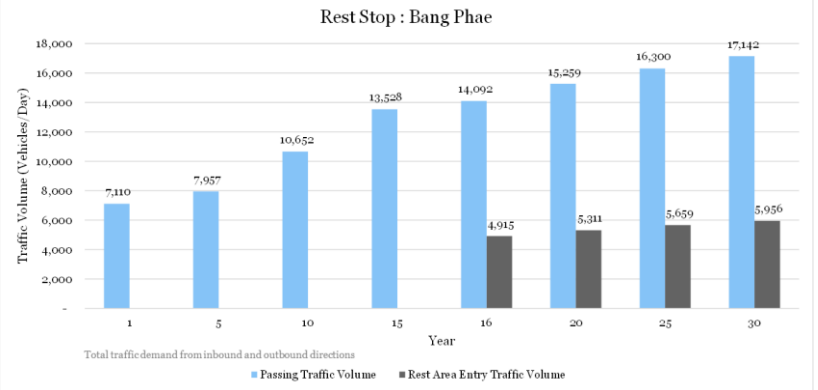
Traffic Demand Forecast



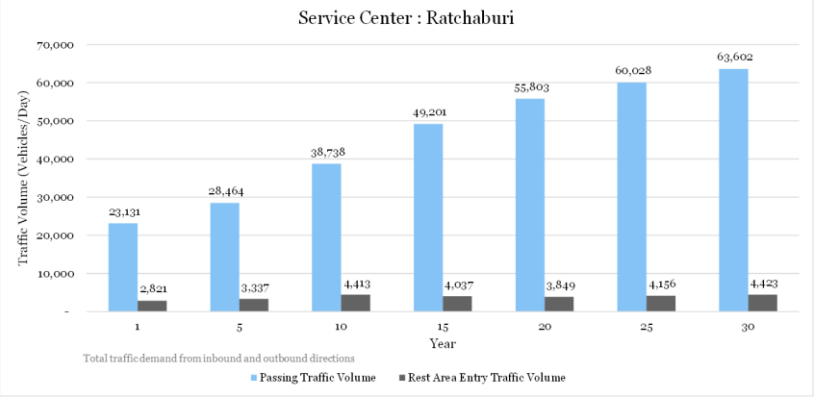
Service Area Km.16 (Approx.)

At the start of operation in 2034 (Year 1), the project is expected to have an average passing traffic volume of **53,777 vehicles per day** and an average rest area entry traffic volume of **5,570 vehicles per day**. By 2063 (Year 30), passing traffic is projected to increase to approximately **149,988 vehicles per day**, while rest area entry traffic is expected to reach **9,057 vehicles per day.**



Rest Stop Km.32 (Approx.)

At the start of operation in 2048 (Year 15), the project is expected to have an average passing traffic volume of **14,092 vehicles per day** and an average rest area entry traffic volume of **4,915 vehicles per day**. By 2063 (Year 30), passing traffic is projected to increase to approximately **17,142 vehicles per day**, while rest area entry traffic is expected to reach **5,956 vehicles per day.**



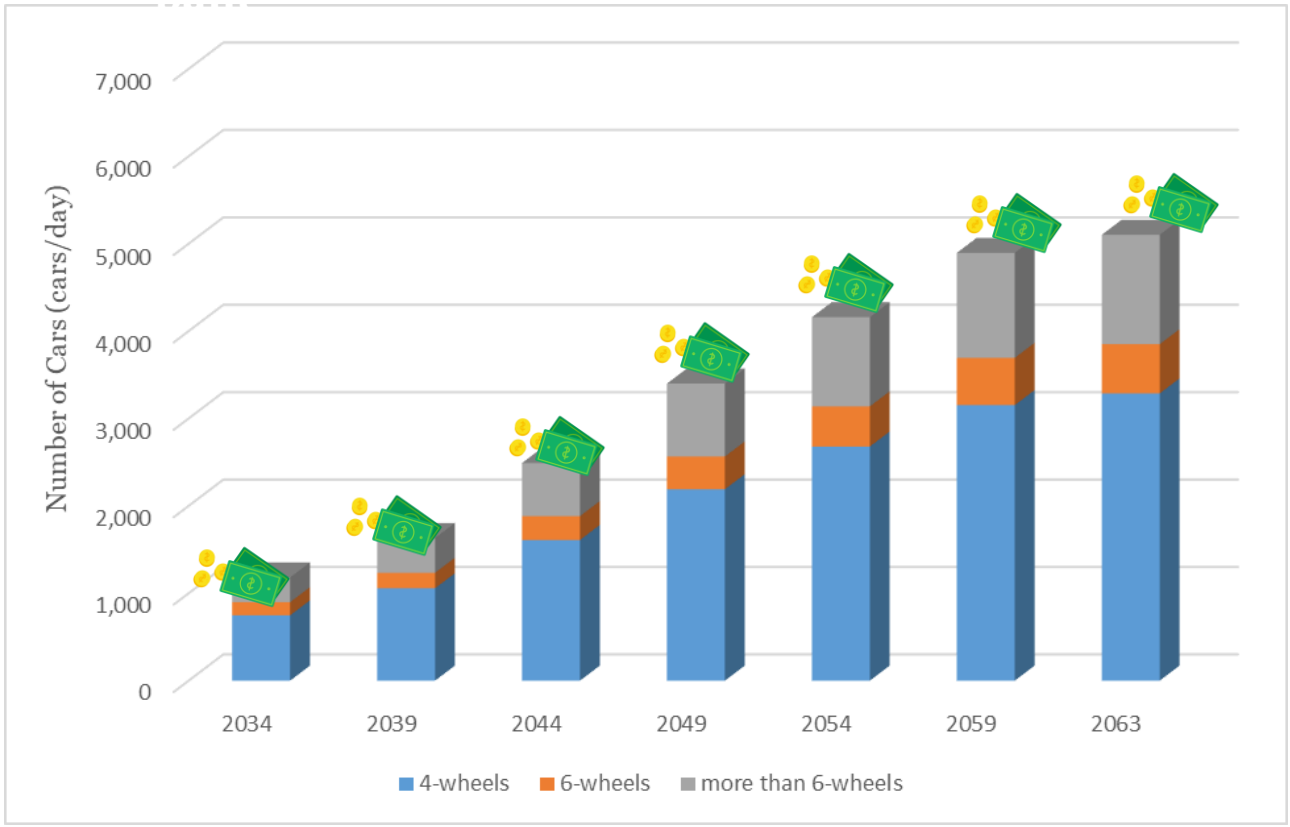
Service Center Km.56 (Approx.)

At the start of operation in 2048 (Year 15), the project is expected to have an average passing traffic volume of **14,092 vehicles per day** and an average rest area entry traffic volume of **4,915 vehicles per day**. By 2063 (Year 30), passing traffic is projected to increase to approximately **17,142 vehicles per day**, while rest area entry traffic is expected to reach **5,956 vehicles per day.**

Toll Revenue Forecast

the project is expected to have the toll revenue of approximately **1,181 million baht per year (in 2034). In 2063,** the toll revenue of about **5,101 million baht per year.**

Total Revenue (30 yeas) **93,202 million baht**



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Rest Area Project Revenue Assumption

Rental rate

- Rental rate increases by 12% every 3 years during 2034–2042
- From 2043 onwards, rental rate increases by 10% every 3 years

Commercial Revenues

- Includes food and beverage (F&B), drive-thru, convenience stores, and lifestyle shops, such as souvenirs
- Occupancy rate: 75% in Year 1, 80% in Year 2, and 85% from Year 3 onwards

Fuel Station and EV Charging Revenues

- Estimated from rental income of fuel station and EV charging areas

Other Revenues

- Advertising space rental revenue
- Revenue from rental of booth areas and event spaces

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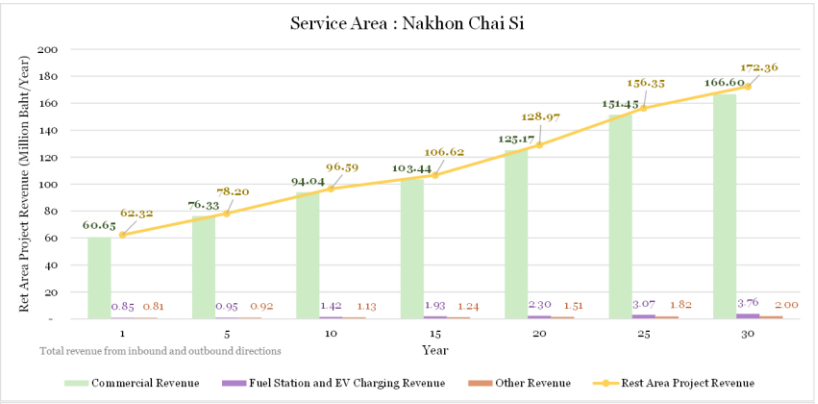
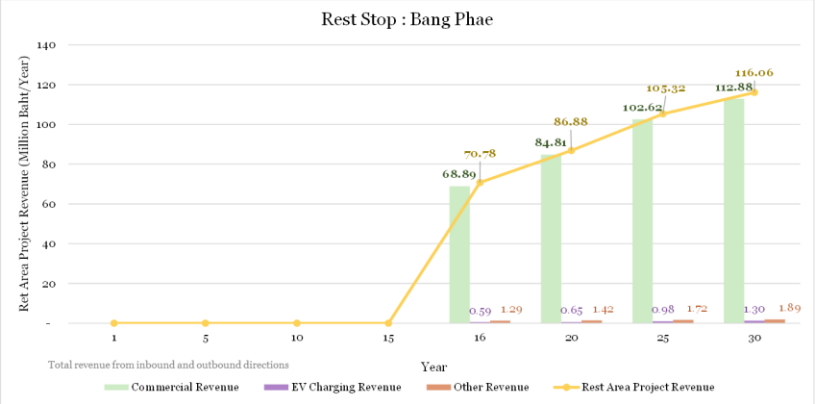
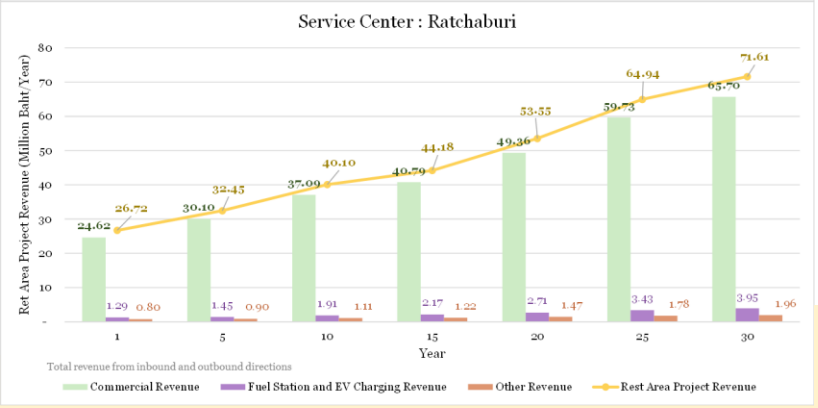
Revenue Forecast







Revenue Forecast (Million)

Revenue	Service Area Km.16 (Approx.)	Rest Stop Km.32 (Approx.)	Service Center Km.56 (Approx.)	Total
Commercial Revenue	3,355.20	1,399.77	1,324.21	6,079.18
Fuel Station and EV Charging Revenue	63.16	13.78	73.38	150.32
Other Revenue	40.47	23.64	39.62	103.73
Total	3,458.83	1,437.19	1,437.21	6,333.23

Service area revenue comprises commercial revenue of THB 6,079 million, fuel station and EV charging revenue of THB 150 million, and other revenue of THB 103 million, with total revenue of THB 6,333 million.

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Economic Analysis

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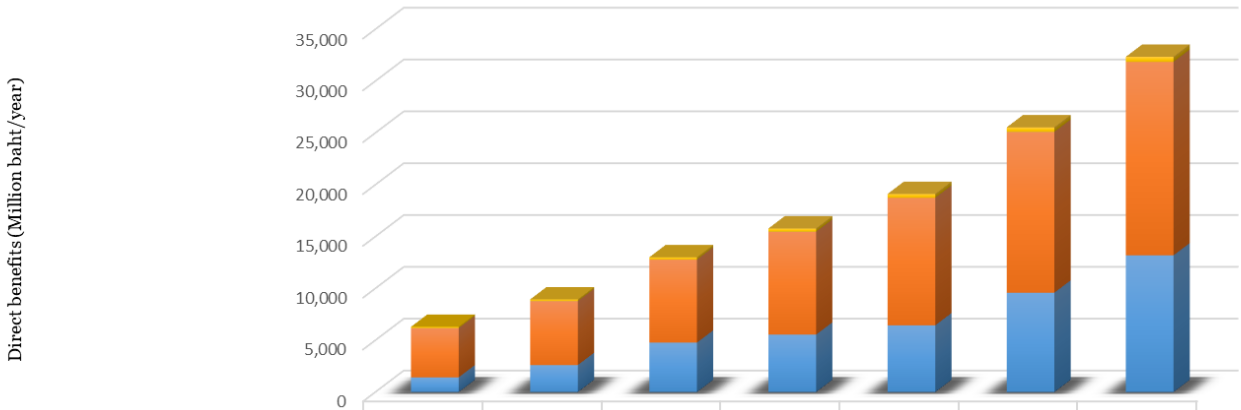
Economic Feasibility analysis

Direct benefits

- *Vehicle Operating Cost Saving*
- *Travel Time Saving*
- *Accident Cost Saving*
- *Safety Benefits*
- *Comfort and Convenience Benefits*

Economic benefits

- Economic Internal Rate of Return (EIRR) **12%**
- Net Present Value (NPV) **57,000 Million baht***
- Benefit Cost Ratio (B/C ratio) **2.1**



	2034	2039	2044	2049	2054	2059	2063
Comfort&Convenience and Safety Benefits	122.41	168.36	226.90	317.51	375.77	442.70	489.48
ACC Saving	5	5	6	7	7	7	7
VOT Saving	4,746	6,162	7,999	9,917	12,296	15,502	18,659
VOC Saving	1,426	2,610	4,777	5,546	6,440	9,592	13,193

Remark : Discount Rate 7%

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Financial Analysis

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Financial Analysis

Financial Assumptions	
Project development period	37 years (A.D. 2527–2063)
- Construction period (including land acquisition) - Operation and maintenance period	7 years (A.D. 2027–2033) 30 years (A.D. 2034–2063)
Discount rate (Government perspective)	3.00%
Total Cost*	**97,142.87 mn**
CAPEX (Land acquisition, Civil work, System work)	65,677.14 mn
OPEX	31,465.73 mn
Total Revenue	**94,180.27 mn**

*Remark : * The project investment cost presented is a preliminary estimate and is currently being updated to reflect current economic conditions.*

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Financial Analysis

Financial Results	
Project FIRR	(0.20%)
Project NPV at discount rate of 3.00%	(29,277.05)
B/C Ratio at discount rate of 3.00%	0.61x
Project Payback Period	After 30 years

Project Risk Analysis

Project Risk Analysis

1 Construction

- Protest project construction
- Project Construction Protest Risk
- Construction Cost Overrun Risk
- Construction Delay Risk
- Construction Quality Risk Construction Site Health and Safety Risk
- Design and Construction Quality Risk
- Pollution and Safety Hazard Risk during Construction

2 Operation

- Traffic Demand Risk
- Risk of Inability to Increase Toll Rates
- Operating Cost / Maintenance Cost Overrun Risk
- Risk of User Volume Below Projections
- Risk of Insufficient Facilities for User Demand Risk of Commercial Space Leasing Revenue Below Projections
- Management Inefficiency Risk

3 General

- Legal and Regulatory Risk
- Financial Risk (e.g., interest rates, inflation, and exchange rates, where applicable)
- Force Majeure Risk
- Political Risk
- Government Policy Uncertainty Risk
- Macroeconomic Volatility Risk
- Natural Disaster Risk

Public-Private Partnership (PPP) Options

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Public-Private Partnership (PPP) Framework

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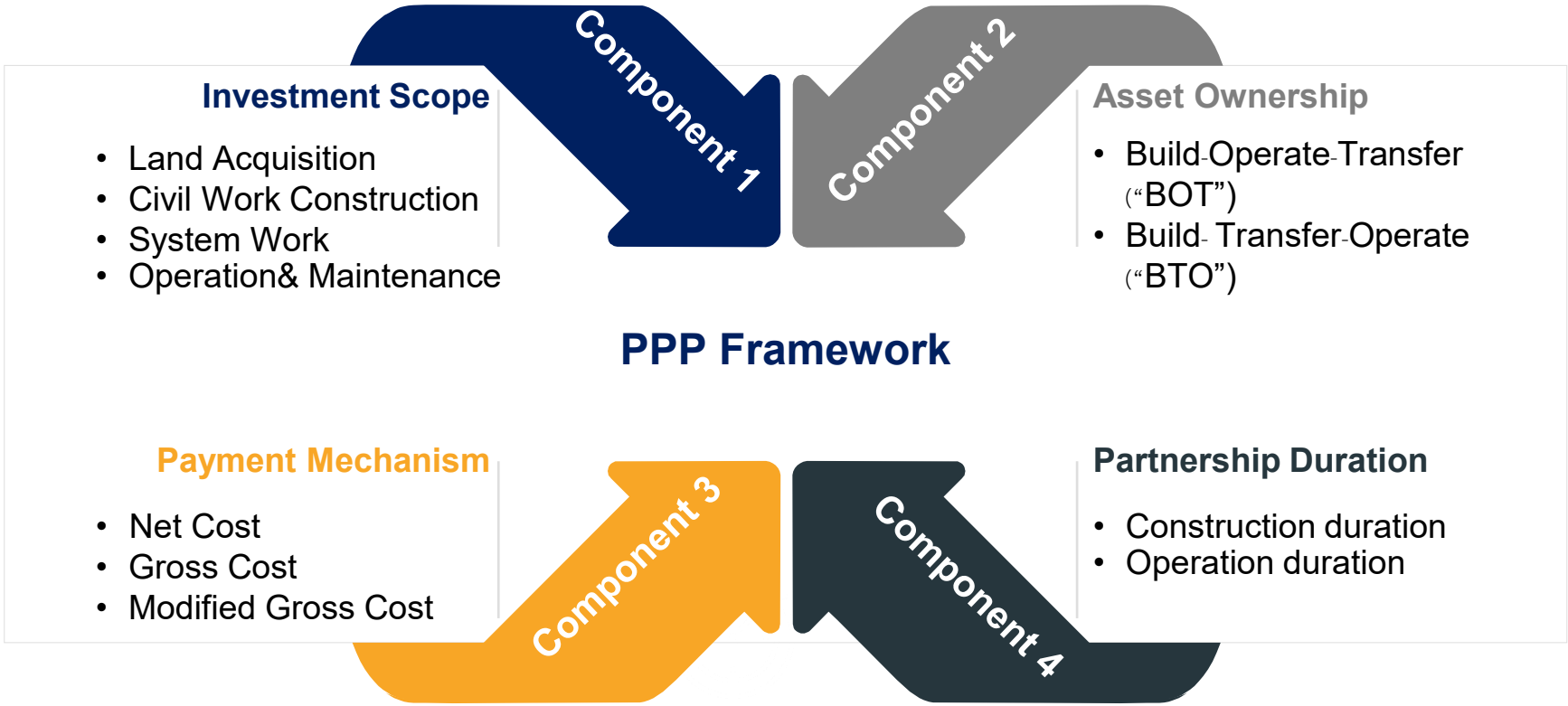
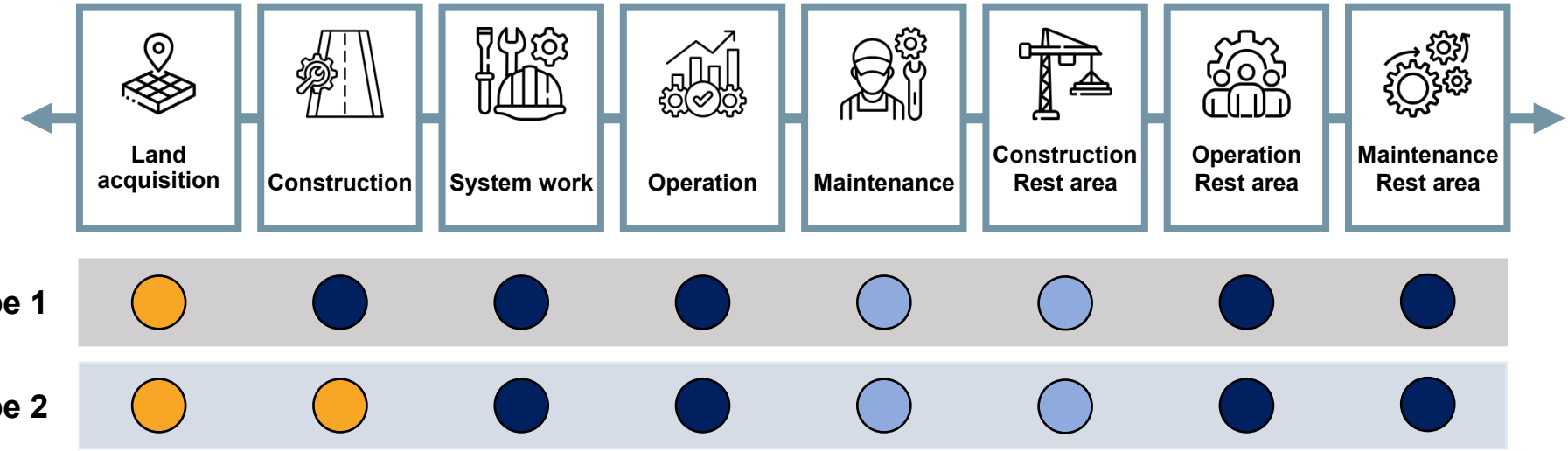
PPP Framework

The PPP scheme will depend on the following components



Note: The results presented are preliminary and subject to changes.

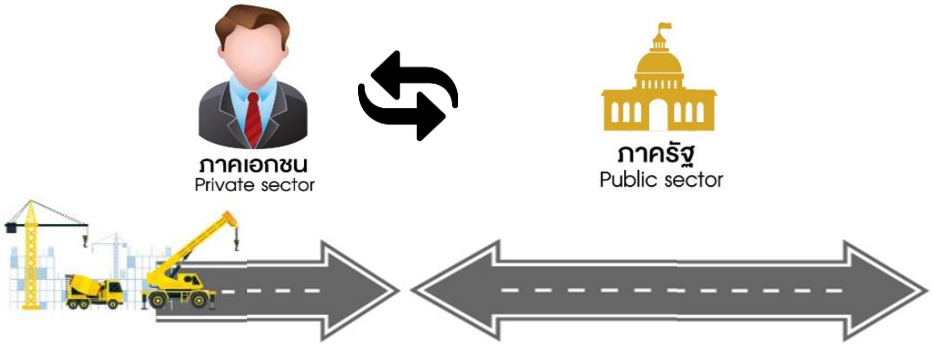
Investment scope



Note: The results presented are preliminary and subject to changes.

Asset Ownership Options

Option 1: Build- Transfer- Operate (“BTO”)

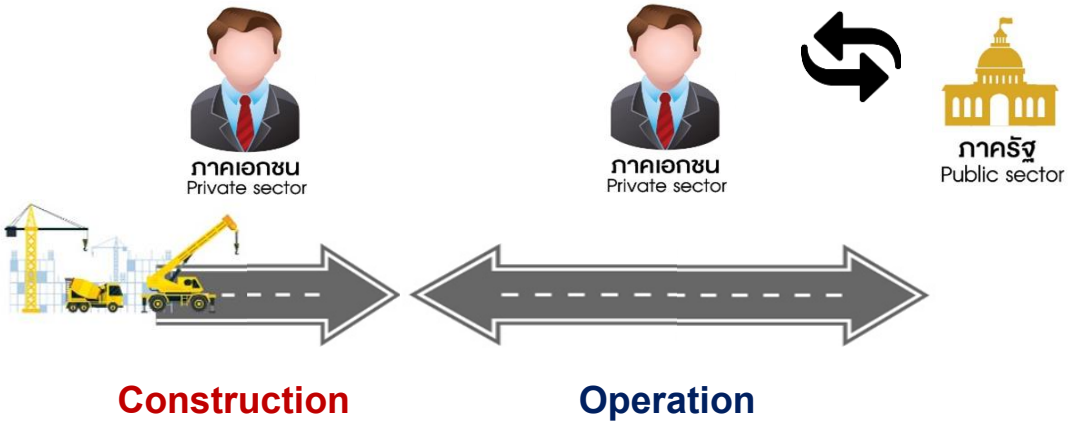


Under the Build-Transfer-Operate (BTO) scheme: The project’s asset will be transferred to the public sector upon construction completion.

Note: The results presented are preliminary and subject to changes.

Asset Ownership Options

Option 2: Build- Operate-Transfer (“BOT”)



Under the Build-Operate-Transfer (BOT) scheme: The project’s asset will be transferred to the public sector at the end of partnership duration

Note: The results presented are preliminary and subject to changes.

PPP Payment Mechanism

Option 1: PPP Net Cost

- The private sector collects toll revenue and non-toll revenue.
- The private sector may be entitled to receive co-investment (subsidy) from the government or share project revenue with the government.

Note: The results presented are preliminary and subject to changes.

PPP Payment Mechanism

Option 2: PPP Gross Cost

- The private sector collects toll revenue on behalf of the government and receives availability payment from the government in return for providing the project.
- The private sector is entitled to non-toll revenue.

Note: The results presented are preliminary and subject to changes.

PPP Payment Mechanism

Option 3: PPP Modified Gross Cost

- The private sector collects toll revenue on behalf of the government and receives availability payment from the government in return for providing the project.

- The private sector is entitled to non-toll revenue **and receives additional incentive payments based on toll revenue collected (i.e. 5% of toll revenue).**

Note: The results presented are preliminary and subject to changes.

PPP Partnership Duration

7 Years

Up to 30 Years

Construction
(Include land acquisition)

Operation

Note: The results presented are preliminary and subject to changes.

Project Scopes and Contract Period

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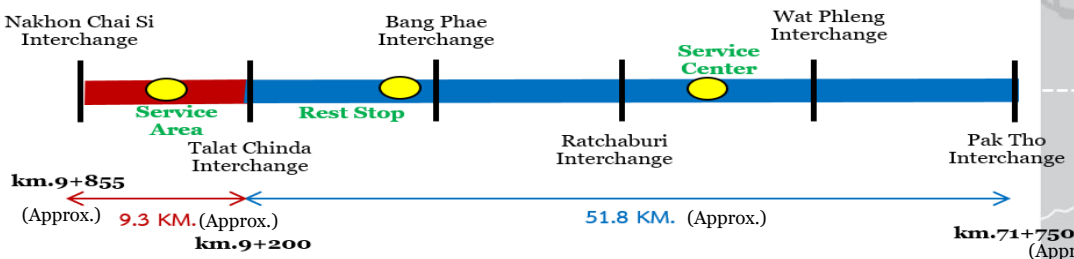
Project Scopes and Contract Period

Project Scope of Investment



	M8 Nakhon Pathom – Pak Tho
1. Land Acquisition and Compensation	DOH
2. Civil Work Construction	
2.1 Main Road	DOH / Private Sector
2.2 Service Road	DOH / Private Sector
2.3 Rest Area	Private Sector
3. System Work Construction and Installation	DOH / Private Sector
4. Operation and Maintenance	
4.1 Main Road	Private Sector
4.2 Service Road	DOH
4.3 Rest Area	Private Sector

The Contract period is within **30 years** after the commencement of commercial operation date

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Potential PPP Options

Option	Investment scope	Asset Ownership	Payment Mechanism	Partnership Duration
1	Scope 1 (Private sector invests in civil work, system work, and rest area)	Build-Transfer-Operate (BTO)	PPP Net Cost	Fixed 30 years (excluding construction period)
2			PPP Gross Cost	
3			PPP Modified Gross Cost	
1	Scope 2 (Private sector invests in system work and rest area)	Build-Transfer-Operate (BTO)	PPP Net Cost	
2			PPP Gross Cost	
3			PPP Modified Gross Cost	

Note: The results presented are preliminary and subject to changes.

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Financial Analysis PPP

Financial Assumptions (Excluding Rest Area)

Item	Net Cost	Gross Cost	Modified Gross Cost
Project Development Period Assumptions			
Project development period - Construction period (including land acquisition) - Operation and maintenance period	**37 years (A.D. 2527–2063)** 7 years (A.D. 2027–2033) 30 years (A.D. 2034–2063)		
Financial Assumptions			
Expected Equity IRR	9.00%	8.00%	8.25%
WACC	5.59%	5.29%	5.29%
Discount rate (Government perspective)	3.00%		
Gearing Ratio	2.50x	3.00x	3.00x
Debt Tenor	20 years		
Interest Rate	5.41%	4.91%	4.91%
Grace Period	Civil Work Phase 1: 2 years Civil Work Phase 2: 1 year System Work: 0 year		
Commitment Fee	0.50% of undisbursed loan amount		
Arrangement Fee	2.00% of total loan amount		

Note: The results presented are preliminary and subject to changes.

Private Sector Investment in Civil Work & System Work (Excluding Rest Area)

Item	PPP Net Cost		PPP Gross Cost		PPP Modified Gross Cost	
	Public	Private	Public	Private	Public	Private
Financial Assumptions						
Project development period Construction period (include land acquisition) Operation and maintenance period	**37 years (A.D. 2527–2063)** 7 years (A.D. 2027–2033) 30 years (A.D. 2034–2063)					
Cost CAPEX OPEX	13,090.30 1,913.44	46,527.07 26,665.31	13,090.30 1,913.44	13,090.30 25,795.93	60,752.47 1,913.44	46,527.07 25,795.93
Revenue	-	87,876.64	87,876.64	-	83,482.81	4,393.83
Financial Results						
Private sector's financial return						
Equity IRR	9.00%		8.00%		8.25%	
Project IRR	7.39%		6.32%		6.42%	
Project NPV	7,788.90		3,974.78		4,432.57	
Project Payback Period	10		10		10	
Project B/C Ratio	1.15		1.08		1.09	

Note: The results presented are preliminary and subject to changes.

Private Sector Investment in System Work (Excluding Rest Area)

Item	PPP Net Cost		PPP Gross Cost		PPP Modified Gross Cost	
	Public	Private	Public	Private	Public	Private
Financial Assumptions						
Project development period Construction period (include land acquisition) Operation and maintenance period	**37 years (A.D. 2527–2063)** 7 years (A.D. 2027–2033) 30 years (A.D. 2034–2063)					
Cost CAPEX OPEX	60,752.47 1,913.44	3,638.10 26,665.31	60,752.47 1,913.44	3,638.10 25,795.93	60,752.47 1,913.44	3,638.10 25,795.93
Revenue	-	87,876.64	87,876.64	-	83,482.81	4,393.83
Financial Results						
Private sector's financial return						
Equity IRR	9.00%		8.00%		8.25%	
Project IRR	8.19%		5.74%		5.99%	
Project NPV	1,401.02		85.18		149.27	
Project Payback Period	15		12		12	
Project B/C Ratio	1.06		1.01		1.01	

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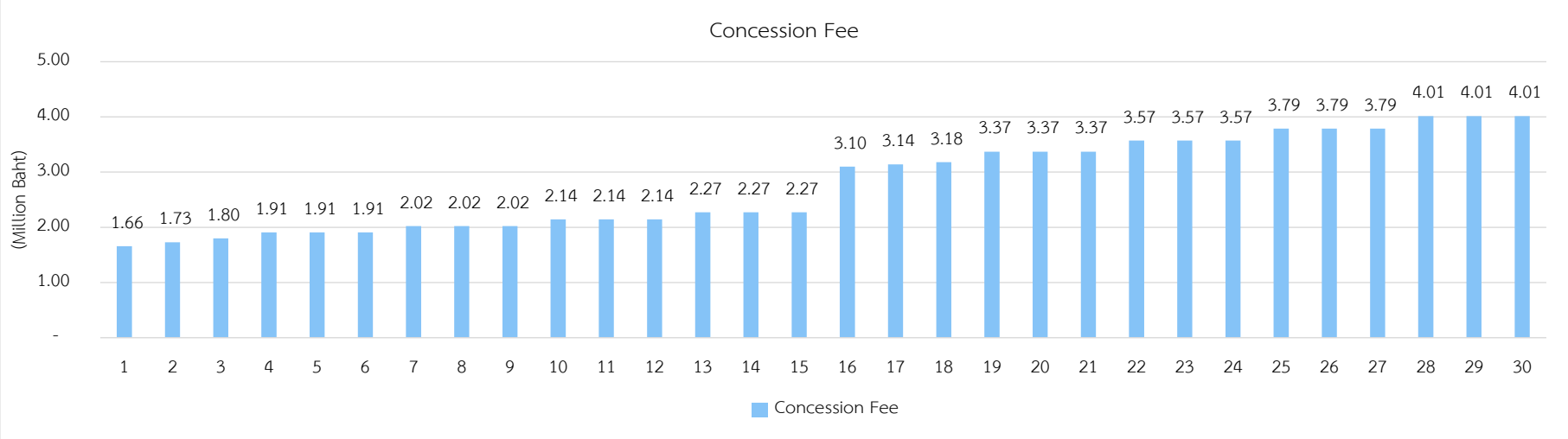
Note: The results presented are preliminary and subject to changes.

Financial Returns

The private sector 's return for Rest Area Investment and Operation is as follows

Assumptions	Net Cost
Total Project Costs	**3,496.83**
- Investment Cost	1,800.24
- O&M Cost	1,612.73
- Concession Fee	83.86
Total Revenue	**6,333.22**
- Commercial Area Rental Revenue	6,079.18
- Fuel Service Station and EV Charging Station Rental Revenue	150.31
- Other Revenue	103.73

Financial Return	
Project NPV	280.62
Equity NPV	50.65
Project IRR	8.43
Equity IRR	11.32
Project Payback Period	13.00
Equity Payback Period	14.00



Note: The rest area will be operated under the PPP Net Cost Model regardless of the main road PPP model.

To reduce the burden on the government budget

Rasing fund through

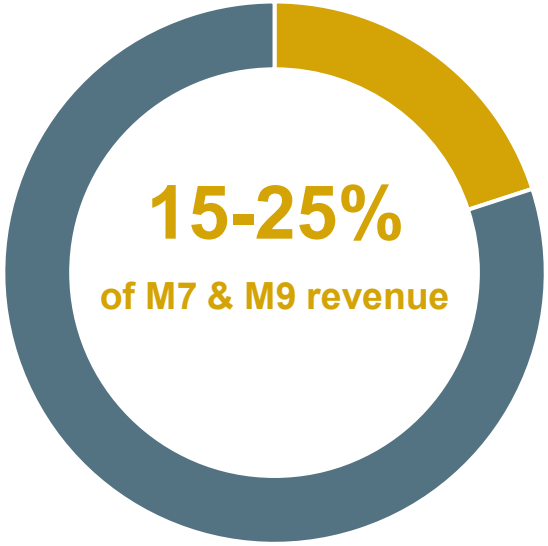
Estimated amount

3 - 4 Billion THB

Thailand Future Fund

TFFIF

กองทุนรวมโครงสร้างพื้นฐานเพื่ออนาคตประเทศไทย



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Readiness of relevant government agencies in formulating and implementing the project

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Readiness of relevant government agencies

- ***The Department of Highways*** *has coordinated with relevant utility agencies involved in the project*, including the Electricity Generating Authority of Thailand (EGAT), the Provincial Electricity Authority (PEA), the Provincial Waterworks Authority (PWA), and National Telecom Public Company Limited (NT), regarding utility relocation and other project-related matters.

- ***The Department of Highways*** *has also completed the Environmental Impact Assessment (EIA) study and has coordinated with relevant local authorities and stakeholders* to present the project information and ensure that they are informed of the project.

Q&A session

รับฟังความคิดเห็นและตอบข้อซักถาม