Public Private Partnerships for the

Bang Khun Thian - Pak Tho

Intercity Motorway Project (Bang Khun Thian - Ban Phaeo Section)

M82

Project Scope

Department of Highways encourages the private sector to employ its range of experience and expertise by investing in this joint public-private partnership project. The scope of the public-private partnership is as follows:

Scope of Public Investment

Land acquisition: Department of Highways will be responsible for all land acquisition throughout the project.

Civil work: Department of Highways will be responsible for construction of civil work, i.e. the roadway and the elevated structure (connecting to the EXAT's Rama III - Dao Khanong - Western Bangkok Outer Ring Expressway) from the Bang Khun Thian Toll Plaza to Maha Chai 1 Toll Plaza, with a total approximate length of 10 kilometers.

Scope of Private Investment

Remaining civil work: The private sector will be responsible for financial sourcing, design and construction of remaining civil work, i.e. the roadway and structures from the Maha Chai 1 Toll Plaza to the Ban Phaeo Toll Plaza, comprising a total approximate length of 15 kilometers.

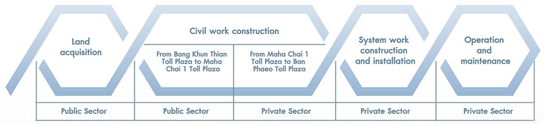
System work construction and installation: The private sector will be responsible for the construction and installation of system work, i.e. toll collection system, traffic management & control system, and construction of related facilities and buildings. All system is required to interconnect with the DOH's central control center and support seamless transportation interoperability with the Exat's Rama III - Dao Khanong - Western Bangkok Outer Ring Expressway.

Operation and maintenance: The private sector will be responsible for toll collection and its management, as well as traffic management and control for the whole project, which is constructed by both the public and private sector.

Public Private Partnership Scheme

1.Scope of Works

The scope of works of this project is divided into 4 main categories: land acquisition, civil work construction (road work and structure work), system work construction and installation, operation and maintenance

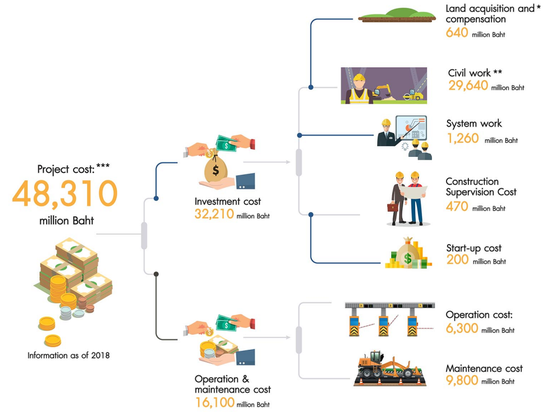


2.Asset Ownership

The asset ownership scheme of the project is Build-Transfer-Operate (BTO). Upon construction completion, the ownership of project asset sshall be transferred to the public sector, while the private investor will be granted the right to manage and maintain the assets during the contract period.

Project Duration and Cost

As a major infrastructure project, which requires time, investment capital, and diverse expertises, Department of Highways provides an opportunity for private participation in this project, as follows:



Remarks * The public sector will be responsible for all land acquisition throughout the project
** The public sector will be responsible for road and structure work construction form EXAT's Bang Khun Thian Toll Plaza to Maha Chai 1 Toll Plaza for a distance of 10 km. with the investment cost of 10,500 million baht.
*** Figures are of preliminary and indicative only, based on the Public Sector Comparator (PSC) scheme assumption.

3. Payment Mechanisms

There are three payment mechanism alternatives: PPP Net Cost, PPP Gross Cost, and PPP Modified Gross Cost, each of which is described below.

PPP Net Cost

Private sector has the ownership over toll revenue and/or non-toll revenue. The private sector might be required to pay concession fee or revenue sharing to the public sector as agreed.

PPP Gross Cost

The public sector has the ownership over toll revenue, while the private sector collects and hands over toll revenue to the public sector. In this scheme, the private sector will receive availability payment (AP) from the public sector under service quality terms and conditions. The ownership of non-toll revenue is subject to appropriate condition as agreed.

PPP Modified Gross Cost

Similar to the PPP Gross cost, PPP Modified Gross Cost provides the private sector with additional return, under specified conditions to incentivize its service opportunity. The ownership of non-toll revenue is subject to appropriate conditions.

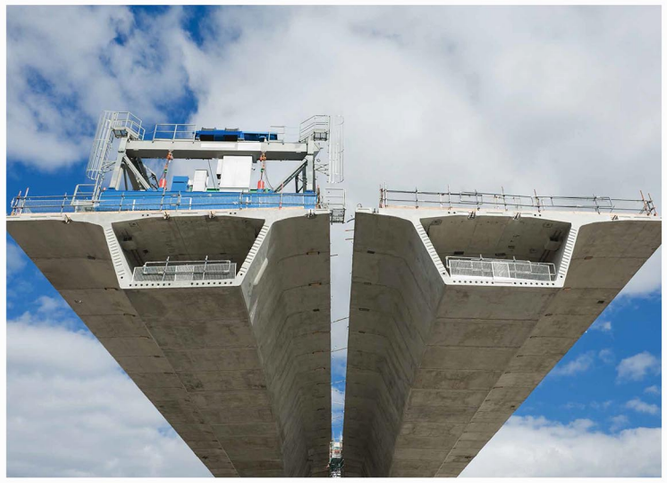
4. PPP Contract Period

The Contract period is up to 30 years after the commencement of commercial operation date.

Scope of the Project

Bang Khun Thian - Pak Tho Intercity Motorway Project, Bang Khun Thian - Ban Phaeo Section is designed to be an elevated toll road over Highway no. 35 (Rama II road) with fully controlled access along the entire route, and all the project componens are designed to meet the DOH's intercity motorway standards. The project scope of work could be divided into 2 phases as follows.

Phase 1 (Design and Construction)



1. Civil Work

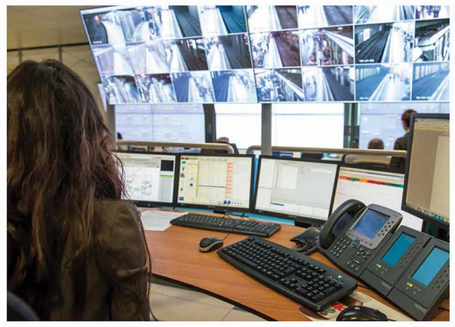
The project design is an elevated toll road on the Highway No. 35 (Rama II road) with total length of 25 kilometers. The DOH is responsible for the construction of 10 Kilometers, and the private sector does the other 15 Kilometers. The project is a six-lane elevated roadway (3 lanes for each directions), with 3.6 meters for lane width, 2.0 meters for outer shoulder and 1.0 meter for inner shoulder.

2. System Work

The private sector is responsible for the financing, construction, and installation of the system works for the entire project.

Toll Collection System

The toll collection system of the project shall be a closed system, a distance - based fee comprising 2 types of collection systems: Manual toll collection (MTC) system and Electronic toll collection (ETC). It consists of 6 toll plazas, namely the Phan Thai Norasing Toll Plaza, Maha Chai 1 Toll Plaza, Maha Chai 2 Toll Plaza, Samut Sakhon 1 Toll Plaza, Samut Sakhon 2 Toll Plaza, and Ban Phaeo Toll Plaza. The toll collection system includes, for example, Toll Plaza and Roadside Equipment, Toll Control Building, Toll Plaza Computerized System, Head Quarter System and Toll Monitoring and Management System.



Traffic Management and Control System

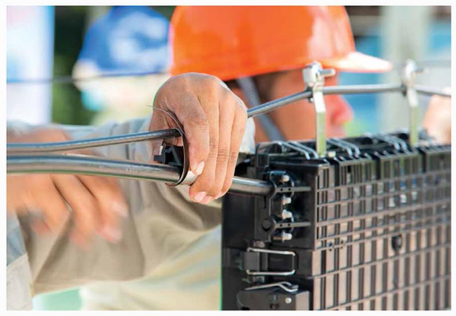
The Traffic Management and Control System shall be designed to ensure efficiency and safety for road users, which shall include but not limited to the following; Traffic Data Collection System, Closed – Circuit Television System (CCTV), Radio Communication System, Variable Message Sign, Emergency Telephone System, Automated Speed Enforcement System, and Vehicle Weight Control System.

Central Control Building (CCB)

As a complex of facilities under the DOH's Project Management Office, the Central Control Building (CCB) shall be located at the north of Highway no. 35 at the Tha Chin River. It will serve as a central traffic control center for managing traffic flow and facilitating motorists to ensuring their safety.

Asset Management System

The asset management system shall be provided by the private sector to do the asset inventory data, record asset maintenance and replacement, collect statistical data, and data analyze at the network level a maintenance plan.



Communication Network

The private sector shall provide a sufficient communication network, a fiber optical network with the required specification, to ensure efficiency of data trasfer among the computer network systems and immediately response capabilities.

Power Distribution System

The private sector shall provide power supply/distribution system that connects from local PEA provided system, including line extension(s) to supply eletricity power to each toll plaza area and any related system work locations. In addition, the private sector shall also provide enough power generators and UPS systems, which allows the orderly shutdown of the electricity,

Phase 2 (Operation and Maintenance)

The private sector shall be required to conduct operation and maintenance of all assets to be provided by both public and private.

Operation

Toll Operation & Management

The private sector shall be responsible for all operations and management. A closed toll operation system (a distance based fee system) with a capability of vehicle classification, associated with the DOH's standard, shall be applied.

Automated Speed Enforcement

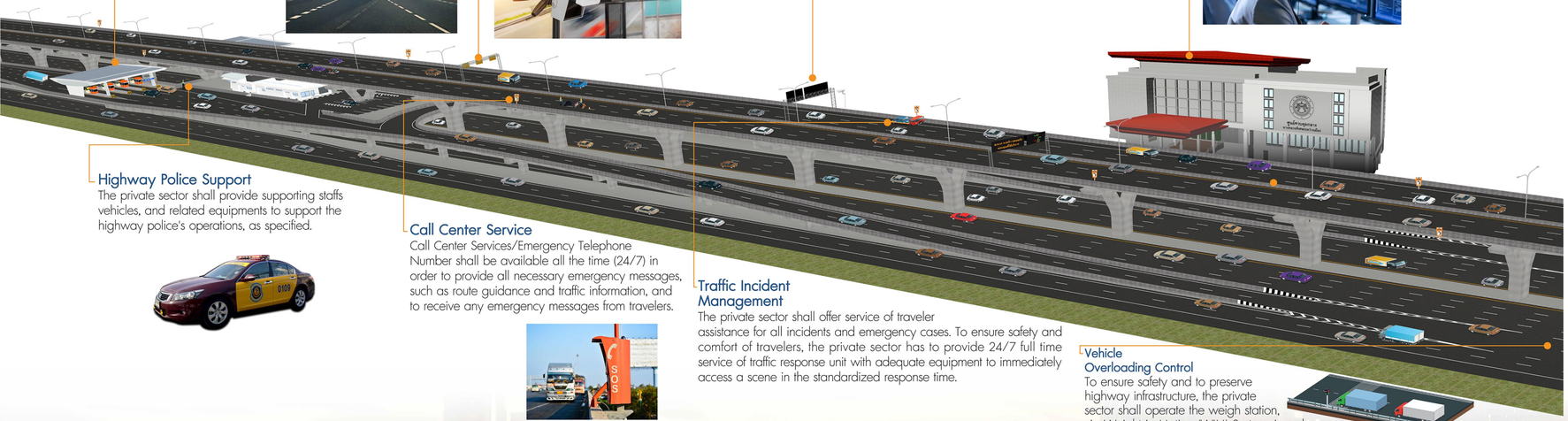
To ensure speed enforcement, the private sector shall provide and operate automated speed detectors, as well as coordinate with and facilitate goverment officer to perform speed enforcement implementation.

Traffic Surveillance and Detection and Dynamic Traveller 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. The private sector may adopt a new cutting edge technology of Visual Traffic Surveillance, such as CCTV cameras and automated traffic detections. A central traffic operation center shall be operated by the private sector as a center of traffic monitoring and control. To disseminate realtime traveler information, Dynamic Message Sign may be used.

Customer Service Center

Customer Service Center shall be operated by the private sector to provide all necessary service of the project, such as M-Pass Transponder Tag distribution, providing traveler information, revieveing and managing any transaction complaints.



Highway Police Support

The private sector shall provide supporting staffs vehicles, and related equipments 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.

Traffic Incident Management

The private sector shall offer service of traveler assistance for all incidents and emergency cases. To ensure safety and comfort of travelers, the private sector has to provide 24/7 full time service of traffic response unit with adequate equipment to immediately access a scene in the standardized response time.

Vehicle Overloading Control

To ensure safety and to preserve highway infrastructure, the private sector shall operate the weigh station, via Weight in Motion (WIM) System, in order to monitor and screen out the overloaded truck

Maintenance

The private sector shall provide full maintenance of the entire project, of which consists those constructed by the public and private sectors. To maintain the service level, the private sector is required to provide enough tool, equipment and all necessary spare parts to maintain efficient service level at all time. The project maintenance can be categorized in 2 groups as follow: (1) civil work maintenance and (2) system work maintenance.

1. Civil Work Maintenance

Highway Maintenance

The private sector shall maintain the pavement surface, roadway structure and substructure. Such the activities include maintenance of surface roughness and smoothness of asphalt concrete pavement, joint sealant of concrete pavement, street light maintenance, traffic instrument and pavement marking maintenance, for instance. 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 protocals, to ensure their sufficient and safe conditions. The maintenance activities include, for example, drainage system maintenance, bearing pad/plate lubrication and replacement, expansion joint maintenance and replacement, and crack sealing of pavement and structure.

2. 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.