

SCHEDULE 3

O&M PERFORMANCE STANDARDS

1. General

1.1 The Project Company will deliver the Operation and Maintenance (O&M) requirements in respect of standards for the operation of the Project Road via dedicated O&M Centers.

1.2 The services to be provided are:

- (a) Staff recruitment, training and integration;
- (b) Toll Management, which including Toll collection, inspection and monitor;
- (c) Maintenance Management, which including routine inspection and clearance, preventive maintenance, periodic rehabilitation, and major maintenance;
- (d) Mechanical and Electrical (M&E) Management;
- (e) Traffic Management.

The Project Company will plan and undertake all maintenance activities to meet the requirements in this Schedule.

1.3 The Project Company will hand back the facilities in accordance with Schedule [17] (*Handback Requirements*).

1.4 In fulfillment of these services, the Project Company shall pay particular attention to:

- (a) Safety;
- (b) Environmentally friendly;
- (c) Sustainability;
- (d) Local liaison; and
- (e) Aesthetics;

2. O&M Performance Standards

O&M standards are some of the parameter related to physical condition of the Project Road and service given to the user, which used as an indicator to be seen from operator and user perspective point of view.

The proposed O&M standards parameters include, road condition (Skid resistance, roughness and number of potholes, etc.), accessibility (transaction time), mobility (response of emergency), safety (condition of traffic sign, marking, guide post/reflector, road lighting, fence, accident handling, law enforcement) and supporting units (ambulance, rescue, patrols, information and communication system), which are summarized and listed below (The measurement and criterion of PQI for pavement and Category for bridges shall comply with *Standards for Technical Condition Evaluation of Highway Bridges* and *Highway Performance Assessment Standards*):

No.	Service substance	Performance Standard			Goal for user
		Indicator	Scope	Measurement	
1	Toll Road Conditions	Road Pavement Quality of Performance Index	Whole section	PQI \geq 85 (Composite of PCI, RQI, RDI, SRI and PSSI) calculated in accordance with specified Standards	Comfort & safety
		Bridge Technical Conditions classified by Grade/Score	Viaduct section	Category \geq Category 2 or Scores \geq 80, calculated in accordance with specified Standards	Safety
2	Tolling Operation	Average transaction time	Entrance gate pass through - MTC	\leq 60s	Smooth flow
			Entrance gate pass through - ETC	\leq 20s	
			Exit gate pass through - MTC	\leq 60s	
			Exit gate pass through - ETC	\leq 20s	
			Exit gate toll collection - MTC	\leq 26s	
3	Mobility	Traffic obstruction handling	Patrol observation area	3 circles per day	Smooth flow
			From information received until arrive at location	\leq 30 min	

			Handling due to vehicle broken	Towing the vehicle to closest toll gate	
4	Safety	Traffic facility signal	Completeness and clearness of information and regulation	100% functional (In case of any defect, repairing works will be done in time with best endeavors)	Smooth & Safe
		Road Marking	Function and usefulness		
		Guide Post	Function and usefulness		
		Lighting in urban road	Function and usefulness		
		Fence	Function and usefulness		
		Accident handling	Victim of accident	Project Company provides hotlines to police and ambulance.	Safety & secure
			Accident vehicles	Identify responsibility by Traffic police; Damaged vehicle towed to the closest toll gate;	
Security and law enforcement	Whole section	Security enforcement provided by Police;	Safety & Smoothness		
5	Rescue and supporting unit	Towing vehicle	Whole section	Two towing vehicles (5-ton & 20-ton);	Safety & smoothness
		Police Patrol (GOK)	Whole section	Provided by Police	
		Toll road patrol (Project Company)	Whole section	1 Pickup	Safety & smoothness
		Fire extinguisher	Whole section	Provided by GOK	Safety
		Information system	Whole section	Main trunk road	Smooth

