Terms of Reference (TOR) for Project Reviewer Team

1. Background.

(a) Feasibility Study and Conceptual Design I) to Construct Multimodal Transport Hub at Dhaka Biman Bandar Station (DABB) & II) to Facilitate Construction of Multimodal Transport Hub at Dhaka Kamalapur Station

(I) Feasibility Study and Conceptual Design to Construct Multimodal Transport Hub at Dhaka Biman Bandar Station (DABB)

Dhaka Biman Bandar station is strategically located just around Dhaka international Airport. It is also beside the connecting point of Dhaka with North, North-West and North-East part of the country. Dhaka Biman Bandar (DABB) station is the busiest railway station after Dhaka and plays a key role in transferring passengers between Capital City and rest of the regions of the country. Though handling large number of passengers, this station has very limited facilities and requires immediate expansion and improvement. Due to its strategic importance, Government of Bangladesh is implementing several projects with different transport mode at the vicinity of the area. The DABB airport station MmTH will be connected with ongoing BRT Line 3: Airport to Gazipur to be extended up to Purbachal; Hazrat Shahjalal Airport Terminal-3; First Dhaka Elevated Expressway; Dhaka-Ashulia Elevated Expressway; Underpass between Hazi Camp, DABB and Terminals of Airport; and MRT Line 1: Airport to Kamalapur.

DABB Multimodal Hub (MmTH) project has been conceived with a view to develop an integrated multi-modal transportation facility at this location. This integration of different transport modes will enable the smooth and convenient transfer of passengers and goods among different modes of transport and help reduce traffic congestion. In addition to this, MmTH will increase passenger handling capacity of BR and increase revenue earnings through commercial activities.

The passengers of southern side of Dhaka City will use the Kamlapur Multi-modal Transport Hub. On the other hand, the passengers of northern part of Dhaka city and the inhabitants of newly built Purbachal City and other upcoming townships on the north side will use Dhaka Biman Bandar Multi-modal Transport Hub. So, the project for development of a multi-modal transport hub at existing railway station area at DABB Station has been proposed by Bangladesh Railway (BR). The Project has received in Principle Approval from CCEA on 17 October 2018.

At present 116 nos. passenger trains run to and from Dhaka Station in the Dhaka- Tongi railway corridor. All passenger trains stop at DABB station. About 60,000 passengers commute in those trains using the existing facility of DABB Station daily. Bangladesh Railway is executing several infrastructural development and rolling stock procurement projects. Some other similar projects are in plan with a view to increase the national transport share from 4% to 10% both in passengers and goods. After implementation of these projects' sectional capacity of Dhaka-Tongi section will be increased about 2.5 times of the present capacity.

Although the existing DABB Airport railway station is located only 600 m from the entrance to the existing terminal building at HSIA, there are no pedestrian facilities connecting the DABB railway station and rail passenger access to the Airport Terminal Building and rail passenger is very difficult. The new third terminal of Hazrat Shahjalal International Airport (partially opened Oct 2023, planned completion late 2024) is located several hundred metres further away than the existing DABB railway station. So, redevelopment of the Biman Bandar Railway Station Building, and Facilities to create a Multimodal Transportation Hub (MmTH) is urgently needed. Through this TA project a contextual

understanding of the construction of DABB MmTH airport railway station will be developed and detailed study will be done under investment programme.

(II) Feasibility Study and Conceptual Design to facilitate construction of Multimodal Transport Hub at Dhaka Kamalapur Station

Dhaka Railway Station at Kamalapur, which was constructed in 1969, has become insufficient to cater to current passengers' requirement. Rail tracks, supporting facilities, waiting spaces and workshops for trains are located on the middle and east part of the station, and only a narrow pedestrian deck provides a walking access between the east and west side of the station. On the other hand, Dhaka Railway station is going to be connected with Khulna and Jashore through Padma Bridge and further with Mongla port after completion of ongoing Padma Rail link and Khulna-Mongla Rail link project. Moreover, construction of two additional railway lines from Dhaka to Tongi is also under implementation through the Dhaka-Tongi 3rd and 4th line project. This improved rail line connectivity will result in an increase in the number of trains handled at Dhaka station, which will not be able to handle them properly due to limited tracks, yard, and station facilities. To utilize maximum benefit of above stated facts Remodeling of Dhaka station with larger station building has become urgent. For station yard remodeling some ancillary facilities such as workshop, train washing facilities need to be shifted to nearby station which will have no effect to train operation.

Existing Inland Container Depot ("Kamalapur ICD") occupies estimated 40.6 acres of land in the southern part of the Dhaka Railway Station at Kamalapur. Bangladesh Railway has also planned to relocate Kamalapur ICD to near Dhirasram station with greater handling and stacking capacity facility. This has created an opportunity to develop the vacant land and use it for commercial activities. Concept of Multimodal Hub (MmTH) has been developed to use existing station area and the vacant land after the relocation of the ICD. Bangladesh Railway is willing to follow the MmTH concept as several projects with different transport mode are under implementation around Dhaka Railway station. Dhaka Kamalapur Railway Station is planned to be connected to a number of interfacing transportation projects: MRT Lines 1, 2 and 4; platforms for conventional rail and a possible new airport rail line from Kamalapur to DABB airport; intercity and local buses; and retail and other high-density land uses. The Motijheel station of MRT Line 6 will also be connected to Kamalapur . The Dhaka Elevated Expressway is designed along the Atish Dipankor Road at the eastern border of the project site. BBA is also conducting Feasibility Study of "Subway" program which also assumes underground connection(s) with the MmTH.

The Bangladesh Public Private Partnership Authority (PPPA) signed a G2G Memorandum of Cooperation (MoC) with the Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT), on the 15 June 2017. The Bangladesh Cabinet Committee on Economic Affairs (CCEA) approved the project on 17 October 2018. The PPPA and MLIT renewed the MoC on the 5th October 2022. Kamlapur MmTH is a complex and challenging PPP project. To facilitate the realisation of Kamlapur MmTH project, JICA undertook a data collection survey on Kamalapur station area redevelopment with a final report date March 2022. At present, BR is working with Kajima Corporation of Japan on the development of a commercial, retail and residential facilities at the Kamalapur Station multimodal transportation hub. This TA project is taken to conduct a study for the development of the new railway station building, a new station yard layout and the relocation of existing railway facilities to enable the G2G Bangladesh Japan PPP project to proceed.

According to Kajima Corporation's conceptual layout drawing, existing Dhaka Locomotive Workshop need to relocate another place of outside Dhaka. Dhaka Diesel Workshop is an important establishment for heavy maintenance of Meter Gauge Locomotives. Without creating new Locomotive workshop, it could not be possible to abolish existing Dhaka Workshop at Kamalapur station area. Therefore, building a new workshop is the perquisite of creating Multimodal Transport Hub at Kamalapur station.

Therefore, the TA project is designed to accommodate all the above scopes for conducting Feasibility Study and Preparing Conceptual Design.

(b) Preparing for Investments in Connections to Chattogram Port, Bay Terminal, and Mirsharai National Special Economic Zone (NSEZ), Freight Locomotives, Relief Cranes and Wheel Lathe Facilities

Improvement of Dhaka-Chattogram Railway corridor is an important programme of Bangladesh Railway, aimed at enabling the railway to carry more traffic between the port and Dhaka. The main activities to be included under this programme are: (i) Conversion of Foujdarhat-CGPY meter Gauge section into Dual Gauge double track, (ii) Establishment of track machine maintenance workshop including procurement of track maintenance machine, (iii) Construction of link line to Bay terminal, and (iv) CGPY yard development. Feasibility studies of these programmes were done previously. Now, to formulate investment programmes under World Bank funding, feasibility study reports need to be reviewed and updated and ESF documents prepared, which will be done under this TA project.

Bangladesh Economic Zones Authority (BEZA) working on the Mirsharai National Special Economic Zone (NSEZ) has highlighted the need for providing logistics services and facilities to the zone and surrounding area. This large scale, mixed use economic zone already has about 35 factories operating (including a steel mill) and a number of under construction. The Mirsharai NSEZ is located 200 kilometers (km) from Dhaka, 60 km from Chattogram, 70 km from Chattogram Port and the Shah Amanat International Airport and 330 km from Sylhet.

The Mirsharai NSEZ area is not directly connected by rail. The Dhaka-Chattogram railway line running almost parallel to the highway (N1) is about 10 Kms from the proposed site. The railway link would need to be constructed early enough to ensure full operability by the opening of the Mirsharai NSEZ Logistics Hub. BEZA proposes to connect the Mirsharai NSEZ and Logistics Hub by rail to BR's Nizampur station (approximately 16 km), on Dhaka-Chattogram railway corridor.

For the World Bank to finance investments in rail facilities in these areas, their technical and economic feasibility must be confirmed, vulnerability to climate and other disasters must be assessed and mitigated, bidding documents must be prepared, and social and environmental issues must be reviewed. So, the feasibility study and conceptual design of a railway link from Nizampur Railway Station to Mirsharai NSEZ Logistics Hub will be done under this TA project.

The present holding of locomotives in Bangladesh Railway is 300 nos. (200 Meter Gauge and 100 Broad Gauge). As per Mechanical code and design specification economic life of a locomotive is 20 years but Bangladesh Railway has to run trains with 184 locomotives whose economic life has already been passed. However, 168 nos. (110 Meter Gauge and 58 Broad Gauge) locomotives are more than 30 years of old age which are still in service. The maintenance of these old age locomotives become costly, and reliability is very poor. Procurement of proposed 20 nos. MG locomotives are subjected to enhance efficient train operation and meet the demand of fast increasing freight and inter-city passenger traffic in Meter Gauge section of Bangladesh Railway. Updating the study previously done for acquiring of dedicated freight locomotives and other equipment will be undertaken under this TA project.

2. Objectives

2.1 Overall Objectives: The objective of the Green Railway Transport Project is to modernize infrastructure and improve the overall efficiency and service quality of the railway system to promote sustainable and eco-friendly transportation. The project focuses on reducing carbon emissions by shifting freight and passenger traffic from road to rail, which is more energy-efficient and less polluting. The project also emphasizes on intermodal connectivity and private sector participation to leverage investment and innovation.

2.2 Specific Objectives:

The main objectives of the TA project are to complete all necessary preparatory tasks for the readiness of the following two (2) sub-projects for implementation. The TA project shall expedite preparation in connectivity projects including feasibility study, conceptual design and preparation of tender document with other related preparatory works. The project preparatory facility will support following components A & B:

(a) Feasibility Study, and Conceptual Design for the Redevelopment of the Railway Station Building and facilities at Dhaka Biman Bandar (DABB) i.e. Airport Railway Station to create a Multimodal Transportation Hub (MmTH), (II) Feasibility Study and Conceptual Design for the Redevelopment of the Station Building & Yard, including relocating existing Operational and Maintenance facilities at Dhaka Kamalapur Railway Station to facilitate construction of Kamalapur Multimodal Transport Hub (KMmTH);

(b) Update of Feasibility Study and preparation of relevant documents for: (a) Faujdarhat to Chattogram Goods Port Yard (CGPY) rail link improvement and CGPY Yard improvement; (b) CGPY to Bay Terminal Link connectivity; (ii) Study on Procurement of Freight Locomotives, Relief Crane and Wheel Lathe facilities; (iii) Update Feasibility Study and Conceptual Design of rail link connecting logistics hub at Mirsharai National Special Economic Zone; (iv) Feasibility Study and Conceptual Design of Track Maintenance Workshop at Chattogram.

3. Description of Services

The above activities has been divided into two service Packages for conducting Feasibility Study and preparing Conceptual Design and relevant required documents as under:

(a) Package SD1: Feasibility Study and Conceptual Design I) to Construct Multimodal Transport Hub at Dhaka Biman Bandar Station (DABB) & II) to Facilitate Construction of Multimodal Transport Hub at Dhaka Kamalapur Station.

(b) Package SD2: Preparatory Facility to Improve Dhaka-Chattogram Freight Corridor.

4. Deliverables to be produced under package SD1 and SD2.

The Consultants of Package SD1 and Package SD2 shall be liable to produce and submit to the client the following reports/deliverables:

(a) Package SD1:

I) to Construct Multimodal Transport Hub at Dhaka Biman Bandar Station (DABB) &
II) to Facilitate Construction of Multimodal Transport Hub at Dhaka Kamalapur Station.

Table 1: Deliverables, Timeline and Payment Milestones

Deliverable		Time from Contract Signing
2(a). Inception report for construction of MmTH at DABB		2 months
2(b). Inception report for facilitation of construction of MmTH at Kamalapur Station	**Dhaka**	1 month
Separate Inception Reports will summarize initial findings, any changes to proposed scope, timing, or methodology of work (including regular BR / WB briefing meetings and reporting) and Quality Management Plan. Covers Task 1 of respective ToRs.		

Deliverable	Time from contract signing
3(a). Assessment report for construction of MmTH at DABB	5 months
3(b). Assessment report for facilitation of construction of MmTH at Dhaka Kamalapur Station Separate Assessment Reports will cover the results of Tasks 2 to 9. The Assessment Report shall include as live documents: a stakeholder management plan; a safety management plan; a risk management plan; a systems engineering and integration management plan.	6 months
4. Preparation of a TOD Plan for Dhaka Airport Railway Station This report, along with its documentation and drawings will cover the results of Task 10 as outlined in the relevant Terms of Reference (TOR).	6 months
5(a). Facilities Relocation Plan for construction of MmTH at DABB This report will present the analysis of options for the development of the new yard layout and functions/facilities currently located at DABB airport railway station with relocation plan. Covers Task 11 of the relevant Terms of Reference.	8 months
5(b). Facilities Relocation Plan for facilitation of construction of MmTH at Dhaka Kamalapur Station This report will present the analysis of options for relocation of functions/facilities currently located at Kamalapur station with relocation plan. Covers Task 10 of the relevant Terms of Reference.	8 months
6(a). Master Plan aligned with TOD and multimodal interfaces for construction of MmTH at DABB This report, documentation &drawings will cover the results of Task 12 of the relevant TOR	9 Months
6(b). Master Plan aligned with TOD and multimodal interfaces for facilitation of construction of MmTH at Dhaka Kamalapur Station This report, documentation &drawings will cover the results of Task 11 of the relevant TOR.	9 months
7(a). Concept Design for construction of MmTH at DABB This report, documentation and drawings will cover the results of Concept Design Task 13	10 months
7(a). Concept Design for facilitation of construction of MmTH at Dhaka Kamalapur Station This report, documentation and drawings will cover the results of Concept Design Task 12	10 months
8(a). Feasibility Study for construction of MmTH at DABB This will be bankable feasibility study reflecting inputs from all prior tasks plus task 14-17.	11 months
8(b). Feasibility Study for facilitation of construction of MmTH at Dhaka Kamalapur Station This will be bankable feasibility study reflecting inputs from all prior tasks plus task 13-16.	12 months
9(a). Technical Specifications and Bidding Documents for construction of MmTH at DABB This report will cover the results of the Technical Specifications and Bidding Documents Task 18.	12 months

Deliverable	Time from Contract Signing
9(b). Technical Specifications and Bidding Documents for facilitation of construction of MmTH at Dhaka Kamalapur Station This report will cover the results of the Technical Specifications and Bidding Documents Task 17.	14 months
10(a). Implementation Capacity for construction of MmTH at DABB This report will cover the results of the Implementation Capacity Task 19.	12 months
10(b). Implementation Capacity for facilitation of construction of MmTH at Dhaka Kamalapur Station This report will cover the results of the Implementation Capacity Task 18.	15 months

(b) **Package SD2:** Preparatory Facility to Improve Dhaka-Chattogram Freight Corridor.

Table 2: Deliverables, Timeline and Payment Milestones

Deliverable	Time from Contract Signing
Inception report Summarize initial findings, any changes to proposed scope, timing, or methodology of work, and Quality Management Plan.	1 month
Assessment Report This report will cover the results of Tasks 1-10 and will constitute the Bankable Feasibility Plan for the proposed Investments.	5 months
Technical Specifications and Bidding Documents This report will cover the results of Task 12.	7 months
Implementation Capacity This report will cover the results of Task 13.	7 months
Sustainability Improvement Plan This report will cover the results of Task 14.	9 months

A. The Project Reviewer Team (Independent Consultant)

Project Reviewer Team (PRT) as peer reviewers to review the work produced by the Consultant will be engaged by the Executive Agency. PRT will support the designated Project Director (PD) of Bangladesh Railway (BR) as peer reviewer. The PRT shall be administered by the PD.

The PRT will examine/verify feasibility studies, surveys and investigation results, and review the design, drawings, BOQ, specifications and bid documents for railway infrastructures, such as, bridge, way and works, mechanical aspects etc.

B. Rationale for engaging the Project Reviewer Team (Independent Consultant)

The key rationale for PRT shall be to assist BR with design review process, apart from other support services related to examination/verification of feasibility studies, surveys and

investigation results, drawings, BOQ, specifications and bid documents, Development Project Proforma etc.

Design Review is an internal quality assurance process for Infrastructure Works Designs that mitigates organizational and life/safety risks by ensuring design compliance with established codes and standards as cited in the BR Design Planning Manuals and associated Design Review checklists and is carried out by respective reviewer.

The purpose of this PRT is to outline the mandatory review requirements for the design of Railway Infrastructure Works, in order to mitigate organizational risk, and to ensure consistent infrastructure design quality, minimum standards of safety, and functionality of Railway infrastructure for partners and beneficiaries.

The effectiveness of the original scope of works in achieving project objectives and outcomes shall be reviewed, and the PRT will verify that the consultants have fully addressed the scope of works as outlined in their accepted proposal and accordingly supplied the required deliverable/reports as outlined in the tender brief.

C. Composition of Project Reviewer Team (Independent Consultant)

The PRT shall comprise a pool of Individual Consultants with different expertise. The selection of such individual consultants shall be decided by the Project Director, as and when the appointments shall be deemed necessary. The indicative positions and expected inputs are given in Attachment-1 and their qualifications, experience and responsibilities are given below.

Attachment1.Qualification, Experience and Responsibilities of Individual Project Reviewer Team (Independent Consultant)

Table below illustrates the minimum qualification, required experience, and also detailed responsibilities of the Project Reviewer Team.

Table: Minimum Qualification& Experience Requirement and Detailed Responsibilities

SN	Position	Qualification	Experience	Responsibility
International				
1	Peer Reviewer (Intermittent) 140 man-days	Graduation in Civil Engineering	15 years of total professional experience, 3 years international experience in transportation field, 10 years' overall experience in transportation field, 8 years' experience in similar type feasibility study and/or design projects. Work experience in ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review the reports prepared by the Consultant • Review the design, drawings, cost estimates, and bill of quantities (BOQs), technical specifications, and bid documents, prepared by the Consultant. • Review technical conditions of the contract and their compliance that will include the review and evaluation of the safeguard's compliance including site safety. • Review and advice on WB policies and procedures for project design, development and implementation, including fiduciary and safeguards. • Review construction planning, identifying key bottlenecks including traffic management, market readiness, and material availability. • Review risk management plan. • Reviewing contract variations, if any.
National				
2	Railway Track & alignment Expert	Graduation in Civil Engineering	15 years of total professional experience, 10 years' experience in transportation field (preferably in railway sector), 8 years'	• Review the reports prepared by the consultant.

SN	Position	Qualification	Experience	Responsibility
	(Intermittent) 100 man-days		experience in similar type feasibility study and/or design projects. Work experience in ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant. • Review submitted Feasibility Study and conceptual designs of railway track of the proposed components. • Review detailed drawings, Specifications, BOQ items & quantity, rate analysis related to embankment construction and Track works. • Review the details of tracks & alignments of yard, loops, main lines and connecting lines. Also review the connecting and take off points of the proposed links. • Review and advice on WB policies and procedures for project design, development and implementation, including fiduciary and safeguards. •
3	Civil Engineer (Intermittent) 100 man-days	Graduation in Civil Engineering	15 years of total professional experience, 10 years' experience in transportation field (preferably in railway sector), 8 years' experience in similar type of feasibility study and/or design projects. Work experience in ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant • Review the drawings, cost estimates, and bill of quantities (BOQs), technical specifications, and bid documents, prepared by the Consultant. • Review the engineering surveys & geotechnical investigation reports and conceptual design of civil structure.

SN	Position	Qualification	Experience	Responsibility
				• Review and advice on WB policies and procedures for project design, development and implementation, including fiduciary and safeguards.
4	Mechanical Engineer (Intermittent) 60 man-days	Graduation in Mechanical Engineering	15 years of total professional experience, 10 years' experience in transportation field (preferably in railway sector), 8 years' experience in similar type feasibility study and/or design projects. Working experience in ADB, WB, JICA or similar funding agencies would be preferable	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant • Review the designs & specification of rolling stock (locomotive/relief crane etc.) of the proposed components and electrical design of railway infrastructure specially rolling stock maintenance related infrastructure. • Review the design and relocation/establishment details of rolling stock maintenance infrastructure like loco shed, wheel lathe, wash pit etc. in the conceptual design of the station yards. • Review and discuss the design criteria and ensure conformity of the criteria • Review and advice on WB policies and procedures for project design, development and implementation, including fiduciary and safeguards
5	Railway Operation Expert (Intermittent) 70 man-days	Graduate in any discipline	15 years of total professional experience, 10 years' experience in transportation field (preferably in railway sector), 8 years' experience in similar type feasibility study and/or design projects. Work experience in	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant

SN	Position	Qualification	Experience	Responsibility
			ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review Recommended station yard layout, maintenance & operation facilities, passenger amenities, freight carrying facilities, container handling facilities etc. of the proposed components as identified during study, prepared by the Consultant. • Review the strategy to achieve universal access to the railway system, as proposed by the Consultant. • Review Consultants' Transport Planning of existing and upcoming corridors • Review Cross Border and Freight Traffic Analysis of the Consultant • Review the requirement and specification for locomotives, building on the operational plan and requirements. • Review the designs & specification of rolling stock (locomotive/relief crane etc.) of the proposed components of railway infrastructure. • Review and advice on WB procedures and guidelines regarding the project design and preparation.
6	Environment & Social Expert (Intermittent) 70 man-days	Graduate in Environmental Science/ Engineering or Social Science	15 years of total professional experience, 8 years' experience in transportation field (preferably in railway sector), 5 years' experience in similar type feasibility study and/or design projects. Work experience in	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant

SN	Position	Qualification	Experience	Responsibility
			ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review the Environment related survey and investigations carried out by the Consultant • Review EIA reports as per requirements of DOE of Bangladesh and WB. • Review land acquisition, resettlement and social issues as per the World Bank ESF policies. • Review the BOQ items of EMP proposed by the Consultant. • Review and advice on WB procedures and guidelines regarding the project design and preparation.
7	Procurement Expert (Intermittent) 50 man-days	Graduate in Engineering or law	15 years of total professional experience, 10 years' experience in transportation field (preferably in railway sector), 8 years' experience in similar type feasibility study and/or design projects. Work experience in ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Bid Document or related other documents by the Consultant • Review the bid documents for all construction packages of the proposed investment project prepared by the Consultant following the FIDIC condition of contract and the World Bank guideline. • Assist the PIU in capacity building on FIDIC condition of contract. • Advise PIU regarding the bid documents, review and suggest modification, if necessary

SN	Position	Qualification	Experience	Responsibility
				• Review and advice on WB Procurement Regulation and guidelines related to project design and implementation. •
8	System Engineer/Safety Expert (Intermittent) 50 man-days	Graduate in mechanical Engineering with additional degree in safety Engineering	12 years of total professional experience, 05 years' experience in transportation field (preferably in railway sector), 03 years' experience in similar type feasibility study and/or design projects. Work experience in ADB, WB or multilateral/ bilateral development agencies would be preferable.	• Review the reports prepared by the consultant. • Assist the Peer Reviewer and PIU in reviewing the submission of the Consultant • Review the models of railway infrastructure, including tracks, stations, bridges, tunnels, and other structures submitted by the Consultant. • Review the safety requirement for locomotives and signals. • Review all sorts of safety related issues of proposed railway infrastructure. • Review visualization, renderings, and animations of the railway infrastructure prepared by the Consultant. • Assist PIU in reviewing the construction sequencing and phasing plans based on the BIM models • Review and advice on safety features based on WB and global/ regional good practices guidelines as applicable.
9	Urban planner / TOD Expert (Intermittent)	Graduation in urban planning, traffic	12 years of total professional experience, 05 years' experience in transportation field (preferably in railway sector), 03 years'	• Review the Master Plans for both Kamalapur and Airport stations, assessing multimodal interface design, pedestrian flows, station

SN	Position	Qualification	Experience	Responsibility
	60 man-days	engineering or other related areas	experience in similar type feasibility study and/or design projects. Working experience in ADB, WB, JICA or similar funding agencies would be preferable	access, and integration with surrounding urban fabric. • Review the TOD Plan for Dhaka Airport Railway Station assessing the appropriateness of land use proposals, density, mixed-use integration, and alignment with broader urban planning in Dhaka • Assist the Peer Reviewer and PIU in reviewing relevant deliverables from an urban planning perspective, to ensure adequate multimodal connectivity and coherent urban integration. • Review and advice on WB procedures and guidelines related to design and implementation of TOD projects.
10	Junior Civil Engineer (Intermittent) 140 man-days	Graduation in Civil Engineering	08 years of total professional experience, 5 years' experience in transportation field (preferably in railway sector), 3 years' experience in similar type feasibility study and/or design projects will be preferable including working experience in ADB, WB, JICA or similar funding agencies.	• Review the reports prepared by the consultant. • Assist the Team in Miscellaneous Works. • Ensure proper document control. • Assist PIU in Progress Monitoring of the Consultant. • Ensure Coordination with the Stakeholders.