# Draft Terms of Reference

**Consultancy Services for Design Review and Construction Supervision of the Construction of Kandy Multimodal Transport Terminal Development Project**

## 1. Introduction

Ministry of Highways is implementing Kandy Multimodal Transport Terminal Project (KMTTP) for Kandy city with the credit facility from World Bank. The main objective of the KMTTP is to improve Public Transport services in Kandy city as part of improving livability by supporting priority investments in infrastructure and services; organizing city functions to enhance urban transformation to respond to economic growth.

Delivering a transport system that is efficient, equitable, and environmentally sustainable and improves the overall quality of life in Kandy city, keeping with its cultural heritage is one of the priority areas of the project intervention.

There were mainly three bus terminals – namely, Goods Shed, Torrington and Clock Tower - operating for Kandy bus system which facilitated nearly 5,000 bus trips coming into the Kandy City daily. These bus trips are provided by 2,300 buses controlled by Central Province Passenger Transport Services Authority (CP-PTSA), 1,600 buses operated by Sri Lanka Transport Board (SLTB) and 300 buses controlled by National Transport Commission (NTC).

Comprehensive scientific studies carried out to improve public transport in Kandy led to the development of strategic plans for public transport development and traffic management with identification of several priority investments for improvement of transport function of the Kandy city.

The Kandy Multimodal Transport Terminal (KMTT) at the Goods Shed including a modern IT based Terminal Operation System (TOS) has been identified as one of the priority investments under the strategic Plan for the development of public transport system for Kandy city.

### 1.1. Project Background

Kandy Multimodal Transport Terminal (KMTT) will provide a facility to eliminate the spatial scattering of the three existing bus terminals in Kandy namely; Goodsshed, Clock Tower and Torrington by bringing all existing terminal operations under one roof at Goods-shed area of nearly 4.5 hectares of land adjacent to Kandy Railway Station. A terminal facility spanning over three levels, connected through an underground passageway and an overhead Skywalk.

It is expected to handle 330,000 passenger per day with over 5,000 bus trips from 193 bus routes from 13 corridors combined to 3 main bus corridors. There will be an IT based Terminal Operating System to control bus operations as well as to provide information to passengers with respect to time of departure, location of respective bus bay. Out of 5,000 bus trips, around 2,100 bus trips will be terminated at the KMTT at boarding and alighting bays. All other bus trips will be converted to touch and go trips where they will have bays to unload and pick passengers and continue the trip to the other end of the trip or back to origin. By this re-arrangement, it is expected that the demand for bus parking within the city will be reduced and parking requirements will be provided within KMTT.

With the construction, there will be 13 bays for Touch and Go, 32 bays for boarding and alighting, 2 bays for maintenance and 94 bus parking slots for bus operation. In addition to that there will be 40 parking slots for three wheelers and 40 parking slots for private cars.

As a passenger facility, all facilities required in a terminal including Public conveniences - washrooms & toilets, rest rooms, seating area, ticketing area, public information displays and centres, food and shopping outlets are provided within the terminal. There will be facilities for bus cruses and operation and administrations. There will be staircases, elevators and Lifts for the passenger vertical movement including facilities for disabled persons. Proposed underground passageways eliminate the crossing of roads by passengers.

There will be elevated pedestrian connections between Peradeniya road, William Gopallawa Mawatha and Kandy General Hospital through KMTT over Railway premises. This will provide easy and short distance movement between two roads, KMTT and Railway station. This pedestrian sky walkway will be connected to second floor level of the building where passenger concourse is located. In addition, the construction of the main canal within KMTT and open sections up to KMTT around 296m and peripheral drains will be done under the project. Further, a part of sewer line under the Kandy Waste Water Management Project within the KMTT area also falling under the scope of the Project.

The project scope of work mainly comprises of;

a) Construction of canal diversion and improvement to the existing main canal (Meda Ela) within KMTT site at the upstream and downstream ends at the designated locations;

b) Construction of main terminal building;

c) Construction of parking building;

d) Skywalk including skywalk to hospital;

e) Fuel pumping station;

f) Construction of single story arcade building;

The Concept design of KMTT was developed under Strategic Cities Development Project and those documents will be available and to be used for procuring a single contract under the Design and Build Construction scheme.

At the same time, the site for the construction of the KMTT has been prepared with diversion of utility lines such as KMC water pumping main, electrical lines and telecommunication lines based on the available design.

The work Contract for "Design and Built of Kandy Multimodal Transport Terminal "is to be awarded as a Design & Built Contract, where the contractor 's scope is as follows.

**General**

The Design & build proposer shall carryout the designs of the Kandy Multi-modal Transport Terminal facility based on the Concept design carried out by the Employer and modifications and issues indicated in the Employer's requirement. Any other amendments to the functional designs are not accepted except in the instances where it deem necessary to adopt detailed design and construction. Those amendments shall be done with the prior approval of the Employer. However, such changes will not in any way affect the building form, spatial quality of the external & internal spaces etc; and should be within the time and cost of the project and up to the satisfaction of the Employer.

**Clearing and demolishing works**

Most of the demolishing works within the Goods shed area has been completed and there are few concrete structures to be demolished for the sky walk access to Peradeniya road and 3 story railway building near William Gopallawa Mw to connect sky walk and for the construction of Arcade building near William Gopallawa Mawatha. There are two residential buildings within the land taken from Sri Lanka Railways to be demolished following the removal of residents by the employer.

## 1.2. Location of Project Road


## 1.3. Project Work Scope

The construction works mainly comprise of;

a) Mede Ela canal

The Meda Ela is the water body that drains the storm water from city area and over flow of Kandy Lake. It was originally an open natural stream and was converted into a stone/brick masonry drain in about 1920. It runs in West direction as a tunnel of about 461m, thereafter runs in a Southwesterly direction as a tunnel for another 70m and becomes an open channel at about 531m from the spillway.

It runs as an open channel up to goods shed bus stand where the proposed KMTT will be constructed and crosses the existing bus stand as covered underground section before it becomes an open channel on the other side of the bus stand. Meda Ela (Main Canal) is the major conveyance for Storm water discharge in the Kandy city and discharges its waters in to the Mahaveli River at Getambe.

With the rapid urbanization of the city, the main canal has been encroached at several places and poses a threat to flooding of the surrounding areas. The section of the covered drain in the Project area is in a poor state with the remaining masonry drain which has deteriorated requiring reconstruction and rehabilitation.

Construction and improvement work of Mede Ela consist of followings,

- Rehabilitation of about 296m of open section prior to KMTT land with suitable silt traps before it convert it to covered section
- Diversion of part of Mede Ela underground section to facilitate the foundation construction of the main building to a suitable length
- Reconstruction of the balance section of Meda Ela suitable to facilitate the terminal parking building construction and
- Improvement of small section at the end;

b) Construction of main terminal building and parking building

Construction of a functional terminal building and bus parking facilities which are connected by an internal road.

The main terminal building of the KMTT will be a three-story building The basement floor will facilitate passengers to avoid at-grade road crossings. The majority of the passenger movement will be confined to this building. The bus operation, mainly the touch and go and boarding and alighting bays will be located within the terminal building.

The parking building of the KMTT will be mainly used for bus operational and administrative activity. The level of passenger circulation within this building will be limited. All the main office areas, driver facilities, Terminal Operating System (TOS) control room and related facilities and bus parking will be located in this building. There is a possibility in development of Mezzanine floor for accommodation of all office facilities in considering level difference.

c) Skywalk;

Construction of 200-meter-long skywalk, allowing pedestrians to move safely between the railway station, hospital, and KMTT

The Skywalk is a significant feature of the KMTT, integrating the bus terminal and railway station, and directly connecting Peradeniya road entrance with William Gopallawa Entrance. It also serves as a direct connection to the Kandy hospital. Considering the new access and connection points facilitated by the skywalk, it has been conceptualized as a large pedestrian boulevard, with street like commercial and recreational activities.

d) Fuel pumping station;

There is a requirement of fuel station within KMTT for busses coming to terminal. It is expected to have 4 dispensers orientating both direction movement of buses. Underground fuel storage also to be provided.

e) Construction of Arcade building;

An Arcade building has been identified near to the William Gopallawa Mw to facilitate single rooms for railway staff and some commercial space at ground floor for value addition to the facility.

## 1.4. Project Implementation Arrangement

The Project Executing Agency (PEA) is the Ministry of Highways (MoH) and Project Implementing Agency (PIA) is the Road Development Authority (RDA). The PIA will be responsible for planning, implementation, management, supervision and coordination of the Project.

The Consulting Services are required to support the PEA and PIA in i) overall project management and technical support, and ii) to assist the PIA to implement the project. The Consultant shall be selected by the PIA using the Quality and Cost Based Selection (QCBS) by approaching the International Market adopting the process as defined in the applicable World Bank Procurement Regulations.

## 2. Scope of Services

### 2.1. General

The scope of services to be provided by the Consultant will include but will not be limited to the requirements detailed in this Section.

The Consultant will ensure that the Project is implemented economically and efficiently as per the implementation schedule, and in accordance with the Project documents, including the Loan, and other documents referred to therein.

During the implementation of the Project, continuous coordination will be required with Government authorities and local agencies for resolution of issues related to the Project. PIA will be the main coordinating agency, and the Consultant shall assist PIA wherever required, to provide technical support, by way of data, drawings, sketches, and other technical aspects of the issues.

The consultant needs to ensure that the require Health & Safety measures as proposed and accepted by the contractor in their method statements are effectvely complied with.
PIA, as the principal Employer, will however continue to have the overall responsibility, as per the applicable law.

The Consultant will perform the functions and duties of the "Engineer" as stipulated in the Civil Works Contracts (based on the World Bank's SPD for Design Build) and this Terms of Reference. In the performance of duties of the Engineer, the Consultant will ensure that the implementation of the works is in the required quality and quantity, and according to the works contract, and adhering to stipulated social and environment risk mitigation measures in the Environment and Social Management Plan (ESMP).
Monitor the compliance with the green and intelligent building requirements and promote innovative learning environments, Supervise and manage the construction with frequent site visits, carry out quality control, testing and reporting, monitor construction activities.
Conduct close full time supervision by employing capable dedicated fully qualified experts.

## 2.2 Main Task Scope

The objectives of the consultancy services are:

1. To review the relevant supporting documents submitted by KMTT Project
2. To review the detailed designs submitted by the contractor in relation to the Employer's requirement
3. To provide construction Supervision, Contract Administration and project Management services to support project implementation of the works contract as identified above.
4. To play the role of the "Engineer" and its representatives as detailed in the contract documents to ensure that high quality construction is achieved and that all work is carried out in full compliance with the engineering design, technical specifications including environmental and social management along with the other contract documents.

As the Engineer, the Consultant shall review the design with all support documents submitted by the Contractor and evaluate them for adequacy, buildability of the designs and administer the construction contracts and ensure that the works are constructed and executed in accordance with the provisions of the construction contract entered into by the Employer with the contractor who will be selected through International Competitive Bidding (ICB) based on the World Bank's standard Bidding Document for Design & Build (Single stage two envelop RFP). The Consultant shall make all engineering decisions required for the successful and timely implementation of the civil works contract subject to the powers, which are defined as being the "Engineer".

## 2.3 Design Review Stage (Phase I)

### 2.3.1 Designs Review

The selected consultant shall work closely with the Project Management Unit (PMU) of KMTTP and be responsible for overall project management and implementing the project. In additional to the responsibility of the Engineer under the civil work contract, the responsibilities of the Consultant shall include but not limited to the following:

a) Approval of "Design & Build" work plan submitted by the Contractor.

b) On the basis of the concept design and Employer's requirement, carry out a joint inspection with the Contractor, agree on the scope and extent of the design of the works, field surveys, topographical surveys, geographical surveys, laboratory tests, etc. required as described in the specifications.

c) Reviewing the detailed designs submitted by the Contractor as per the preliminary designs and requirements specified in the works contract.

The scope of works of review comprises with the following;

**a) Architectural Design Review**

Review the architect design of all works under the project including, main terminal building, Parking building skywalk, fuel station, Road design, Landscape design, arcade building, road entrance building, underpass etc. of the terminal complex.

The review needs to check all components within the land allocated and ensuring that the proposed design meet the regulation and guidelines of local authorities, functional requirements, National Transport and Sri Lanka Railway guidelines, Kandy heritage requirement etc..

**b) Structural Engineering Design Review**

Structural design review consists with the following;

- Review of the Structural Design
- Review of Structural Analysis using an independent computer model,

- Review of structural framing
- Review of structural adequacy of structural elements

Review of the design of Substructure (Foundation and Earth Retaining System, Skywalk, Canal construction etc.

**c) Building Services Design Review**

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## C.1 Electrical Engineering Design Review

Design review of Electrical System including the following;

- Review of the Electrical Design
- Review of adequacy of structural opening sizes for electrical installation and sizes of ducts
- Lighting Design review
- Design Review of Power Outlets
- Design Review of Power Distribution System
- Design Review of Lightning Protection System
- Design Review of fire detection system
- Review of Sizing of Transformers & Standby Generators

## C.2 Water Supply and Drainage Design Review

- Review of the Water Supply & Drainage Design
- Design Review of Internal Water Distribution System
- Design Review of Internal Drainage System including Sewer and Wastewater Disposal.
- Design Review of Rainwater Harvesting and Irrigation System
- Design Review of Wastewater Disposal /Treatment System
- Design Review of External Water Supply System from underground water Sump to overhead water tank including pipes and valves details and Pump room arrangement.
- Design Review of External Drainage System including Manhole and Water seal catch pit layout up to public sewer line.
- Design Review of Rain Water Drainage System of top roof slab level and surrounding the building.
- Design Review of Storm Water Disposal System at ground level up to Public Strom Water Drainage line.
- Design review of Meda Ela Storm Water canal design

### C.3 Mechanical Engineering Design Review

- Review of the Mechanical Design
- Design review of the adequacy of number of lifts provided in accordance with relevant British Standard and modern engineering practices to ensure smooth operation and passenger safety.
- Design review of Fire Protection and Detection System to comply with the relevant British Standards, (ICTAD Publication No. ICTAD /DEV-14, Fire Regulations of Sri Lanka and Recommendation of Fire Services Department of Colombo Municipal Council).
- Design Review of other mechanical services such as Air conditioning, Escalators, LP gas system, Kitchen equipment, Laundry, Boilers, etc.

### C.4 Information Communication Technology (ICT ) Designs Review

- Review of Public Addressing System
- Review of Door Access Control System
- Review of Telephone System
- Review of CCTV System
- Review of Central Clock System
- Bus operation control system and terminal management system and Operation control centre arrangements and passenger information system within the terminal and out site the terminal ( The software for the Terminal Operating System and Bus Management System to be installed at Control Center has been developed by the Employer)

### 2.3.2 Project Implementation Plan

For efficient Project management, the Consultant will introduce an effective Project Implementation Plan for communicating to all participants, including those whose interests or roles are beyond the control of the Consultant, the Project's objectives, and the methods and resources to be used in meeting them. It will be structured such that separate subordinate Project implementation plans prepared for each contract and activity reflect the requirements and structure of the overall Project Implementation Plan.

## 2.4 Construction Supervision Stage (including Defect Liability supervision and Operation Support ) – ( Phase-II )

### 2.4.1 Contract Management

The Consultant will assist PIA in the day to day supervision of the contracts, including the following, but will not be limited to**:**

i) Administer contracts under Conditions of Contract, including monitoring Contractor's progress, release of payments, management of performance securities, return of bid bonds, advance payments, commissioning proposals and warranties; manage contractual queries; and others;

ii) Advise of any needed changes to plans or specifications;

iii) Assist PIA in reviewing and examining claims arising from Contractor's in relation to time extensions for completion, additional payments, and other matters that may arise from time to time during contract implementation;

iv) Upon completion of procurement, inspection of the works/goods and certify completeness or otherwise;

v) scrutinize and approve all designs and drawings of structures, and to enable the work proposals submitted by the Contractors, in respect of their adequacy to conform to the design standards approved by PIA;

vi) The Consultant will certify the quantity of work done, its quality and the payments to be made to various agencies engaged in the implementation of the Project;

vii) The Consultant will co-ordinate, review and monitor the activities of all Contractors, suppliers and manufacturers and undertake construction supervision;

viii) The Consultant will assist PIA in ensuring tests, trials and commissioning of the system

### 2.4.2 Construction Supervision

The Consultant shall be responsible for supervising the construction of the Project, and its implementation to the desired quality, time schedule and construction cost. The Consultant will develop a suitable system ensuring the quality and time schedule for the work and reporting the same to PIA. The duties and responsibilities of the Consultant during the supervision services shall include the following, but will not be limited to:

a) Carry out a pre-construction review of the contractor’s designs for terminal building, Parking building, skywalk, arcade building design, access roads, earthworks, drainage work, pile foundations and structures

b) Review and approve contractors working drawings, method statements, programmes, and any other documents, in consultation with PMU
c) Communicate with the Employer and contractor with necessary documents.
d) Overall contract / project management and administration of the civil work contract as defined in the contract documents
e) Approve and monitor the contractor’s construction program and method statements, verifying that they are consistent with the implementation schedule for the contract packages. A suitable computer aided package shall be used for this purpose with the agreement of the Employer and the contractor
f) Day-to-day supervision of work at site by providing permanent presence of suitable qualified and experienced site supervision staff
g) Providing approval for Quality assurance plan and monitoring same to make sure implementation of the quality assurance procedures; Inspect and test all materials and works to ensure compliance with specifications and giving immediate notice to the contractor in the event that such materials and works

fail to comply with the specifications and take action to remove and correct them.

h) Inspecting site safety, quality of workmanship, preparing reports & photographs in all stages.
i) Maintaining checklists, Material list, quality reports and quality controls of material brought to the site.
j) Inspecting in-situ testing, final testing on completion & review, and forward the test reports to the Employer.
k) Review laboratory test reports and forward test reports to Employer with comments.
l) Maintain necessary daily reports (labour returns, Weather charts, material returns, plant returns etc.)
m) Monitor maintaining of the site in clean and neat manner.
n) Ensure compliance with the environment, health& safety and social impact mitigation requirements of the civil work contract
o) Evaluate claims, disputes, extensions of time, and the like, including issuing variation order as appropriate and in line with the limits placed on the project manager's authority, as well as advising the employer on all matters relating to the execution of the work
p) Adhering to regulations, codes and standard on safety stated in the contract. Conduct a complete joint review of the works with all stakeholders and PMU, as well as a safety audit, prior to handover of the site to the employer
q) Conduct weekly progress review meetings at site, prepare minutes and submit to PMU. Weekly meeting will be attended by representatives of the PMU and other relevant agencies. During meetings, keep the employer apprised of the contract components and make recommendation on how those goals and objectives can be safeguarded
r) Provide on the job training workshops to 5 members of the contractor's staff and 15 members of the PMU / CP- PTSA/ SLTB technical staff in (1) contract administration, (2) Quality assurance
s) Preparation of Monthly Progress Report and Quarterly Progress Report related to work progress to be submitted to the PMU and other relevant organizations. Format of reports to be agreed by both parties, but should cover as a minimum, project data, Updated program; payment status, S curves, Physical and financial progress, Variations, EOT, Claims, weather charts, material deliveries, construction issues, Social and environmental status and issues, health & safety issues etc.
t) Scrutinizing and certifying of as built drawings provided by the contractor
u) In addition to above, the services under the Electrical, Mechanical & ICT works includes, supervision of installation, testing and commissioning of plant and equipment including acceptance of test certificates and reports to be carried out.
v) Joint works inspections with contractors, taking measurement and certification of work done and certification of interim/final payments. Prepare an interim payment certification (IPC) submission and review schedule in consultation with the contractor, and hold joint monthly meetings with the employer to review the approved payments and agree on the submissions

w) Preparation of project completion report for PMU and for other relevant organizations
x) Maintaining continuous dialogue with MU and connected agencies to obtain assistance and approvals in utility and community assets shifting/ relocation and removal of obstructions and security clearances
y) Interfacing of the financial reports generated by the consultant, to Financial Management Implementation Support (FMIS) of the PMU
z) The Consultant shall, if so required by the employer, provide the following additional service within the contract amount: (i) preparer reports, including technical appraisals, additional contract documentation, and /or reviewing and commenting on the contractor's proposals, as may be required for any additional work required for the successful completion of the project.
aa) Instruct to contractor to prepare operating & maintenance manuals.
bb) Prepare handing over documents, checklists and snag lists.
cc) Inspect the defects and rectification works during the defect Liability period (Maintenance period). This item is not included in the fee proposal and will be carried out on request at a cost.

### 2.4.3 Site Visits

The Consultant shall visit construction sites and monitor the Contractor's activities for quality assurance, for conformity to Contract specifications and time frame. Although the responsibility for correctness, completeness and adequacy of the Works constructed by the Contractors and for compliance with statutory obligations remain with the Contractors, the Consultant will ensure that any deficiency in the performance of the Contractor is rectified in a timely manner. The Consultant shall inform PMU of their findings and recommendations resulting from the site visits.

The Consultant shall monitor Contractor's activities to minimize adverse effects on public safety, traffic, residential and commercial activity, and the environment.

## 2.5 Others

### 2.5.1 Testing and Commissioning

a) All testing and commissioning approvals/ observations/plans/programs as specified in the Design & Built contract document.

To ensure that all necessary pre-commissioning checks are carried out as necessary for the plant, equipment and buildings, Ensure that all final accounts are satisfactorily settled in accordance with the contract conditions. Ensure that all necessary operations & maintenance manuals, drawings, plans and other instructions are supplied to the client. Monitor the work during the defects liability period. The consultant shall produce the "KMTT Project Closure" report at the end of defect liability period.

To assist the operator to revise or modify any features that need changes to satisfy the objectives of the terminal and associated features for further two years.

### 2.5.2 Safeguard Compliance Monitoring

The Consultant's responsibilities shall include, but not limited to:

General

a) Keep a register of technical supervision, recording volumes of works performed by the contractor, comments on construction quality, and remedial actions for elimination of defects on daily basis (the register shall be maintained according to the local instructions for keeping supervision records)

b) Compile baseline data for all performance targets and indicators as early as possible, but no later than first quarter of the construction mobilization

c) Measure progress at the project mid-term and completion stages

d) Monitor compliance of the project with the provisions preventing discrimination in employment, enforcing gender equality, and reducing risks of spread of communicable deceases; preventing human trafficking

e) Oversee the proper implementation of the environment and social management plan by the Contractors

f) Ensure that the construction methods proposed by the contractor for carrying out the works are satisfactory, with particular reference to the technical requirements of sound environmental standard on the basis of WB's Environmental Guidelines for selected infrastructure development project and the Environmental Assessment (IEE) and Environmental and Social Management Plans (ESMP) prepared for the project.

g) Provide and document results in quarterly progress reports

h) Prepare periodic monitoring reports, monthly and quarterly and submit to PMU and facilitate grievance redress in the case of social related issues

i) Ensure that the implementation the recommendations made by the Central Environmental Authority and the other stake holder agencies for carrying out the works are satisfactory, with particular reference to the technical requirements of national environmental standards.

### 2.5.3 Environmental and Social Requirements

The Environmental and Social requirements have been based on The World Bank Environmental and Social Framework. Accordingly, project has completed the Environmental and Social Impact Assessment and resettlement action Plan for all resettlement activities of the project. Both reports have already been published in Ministry web site. Accordingly,

Environmental and Social Commitment Plan has been prepared on which all parties involved in the project have to commit and adhere in implementation of the project. Environmental Safeguard Measures are given below.

### 2.5.4 Environmental and Social Commitment Plan

1. The Government of Sri Lanka will be implementing the Kandy Multimodal Transport Terminal Project (the Project), with the involvement of the following Ministries/agencies/units: Ministry of Highways. The International Development Association (hereinafter the Bank/the Association) has agreed to provide financing for the Project.

2. The Government of Sri Lanka will implement material measures and actions so that the Project is implemented in accordance with the Environmental and Social Standards (ESSs). This Environmental and Social Commitment Plan (ESCP) sets out the material measures and actions, any specific documents or plans, as well as the timing for each of these.

3. The Government of Sri Lanka will also comply with the provisions of any other E&S documents required under the ESF and referred to in this ESCP, such as Environmental and Social Management Plans (ESMP), Resettlement Action Plans (RAP), and Stakeholder Engagement Plans (SEP), and the timelines specified in those E&S documents.

4. The Government of Sri Lanka is responsible for compliance with all requirements of the ESCP even when implementation of specific measures and actions is conducted by the Ministry, referenced in 1 above.

5. Implementation of the material measures and actions set out in this ESCP will be monitored and reported to the Bank by the Government of Sri Lanka as required by the ESCP and the conditions of the legal agreement, and the Bank will monitor and assess progress and completion of the material measures and actions throughout implementation of the Project.

6. As agreed by the Bank and the Government of Sri Lanka, this ESCP may be revised from time to time during Project implementation, to reflect adaptive management of Project changes and unforeseen circumstances or in response to assessment of Project performance conducted under the ESCP itself. In such circumstances, the Ministry of Highways will agree to the changes with the Bank and will update the ESCP to reflect such changes. Agreement on changes to the ESCP will be documented through the exchange of letters signed between the Bank and the Ministry of Highways. The Ministry of Highways will promptly disclose the updated ESCP.

7. Where Project changes, unforeseen circumstances, or Project performance result in changes to the risks and impacts during Project implementation, the Government of Sri Lanka shall provide additional funds, if needed, to implement actions and measures to address such risks and impacts.

**Table 1 : Material Measures and Actions**

| No. | Material Measures and Actions | Timeframe | Responsible Entity/Authority |
|---|---|---|---|
| **MONITORING AND REPORTING** | | | |
| **A** | **REGULAR REPORTING** | | |
| | • Prepare & submit to the Bank regular monitoring reports on the environmental, social, health and safety issues & performance of the Project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(s). | Every six months, within 15 days of the end of the six-month period | Supervision Consultant, |
| | • Engage stakeholders and third parties (independent experts, local communities, and NGOs) to complement or verify PMU's own monitoring activities. | Every quarter, within 15 days of the quarter | Supervision consultant |
| | • Collaborate with other agencies and third parties who are responsible for managing specific risks and impacts and implementing mitigation measures to establish such mitigation measures. | Throughout project implementation | Supervision consultant |
| **B** | **INCIDENTS AND ACCIDENTS** | | |
| | • Promptly notify the Bank through PMU of any incident, including GBV, or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers. | Within 24 hours of the incident taking place | Supervision consultant, |
| | • Provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate. | Within 3 days of the incident/accident taking place | Supervision consultant/ Contractor |
| | • Prepare a report on the incident or accident and propose any measures to prevent its recurrence. | Within 7 days of the incident/accident taking place | Supervision consultant/ Contractor |
| **C** | **CONTRACTOR'S MONTHLY REPORTS** | | |
| | • Ensure that contractors submit their monthly performance reports, including implementation of the ESMP, to the PMU. | Monthly, within 5 days of end of the month | Supervision Consultant |

| No. | Material Measures and Actions | Timeframe | Responsible Entity/Authority |
|---|---|---|---|
| **ESS1: ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS** | | | |
| **1.1** | **ORGANIZATIONAL STRUCTURE** | | |
| **1.2** | **ENVIRONMENTAL AND SOCIAL ASSESSMENT** | | |
| | • Support the PMU to update, adopt, and implement, the Environmental and Social Management Plan that has been prepared for the Project in line with the finalized design, in a manner acceptable to the Bank. | At finalization of civil works designs, and implement through civil works | Supervision Consultant |
| | • Incorporate climate and disaster risks-related elements/measures into the project design. | Finalization of detailed project design | Supervision Consultant, Contractor, PMU |
| | • Ensure carryout a crack survey to establish the baseline condition of structures in the buffer zone (100m radius from project boundary) prior to commencement of construction. | Prior to commencement of civil works | Supervision Consultant |
| **1.3** | **MANAGEMENT TOOLS AND INSTRUMENTS** | | |
| | • Implement ESMP to manage project's environmental and social risks and impacts in accordance with the timeframes specified and review the status of implementation of ESCP as part of ESF monitoring and reporting. | Throughout the construction period | Supervision Consultant |
| | • Monitor and evaluate the implementation of the ESMP, including Contractor's ESMP. | Monthly, within 5 days of end of month | Supervision Consultant |
| **1.4** | **MANAGEMENT OF CONTRACTORS** | | |
| | • Include relevant sections of the ESMP, SEP, LMP (that will fall under the purview of the contractor) in the bidding documents. | Prior to tender publishing | PMU E&S Staff, Supervision Consultant |
| | • Ensure the contractor submits to the PMU the following plans, in a form that is acceptable to the client and in line with the client's ESIA/ESMP<br>o Contractor's ESMP<br>o Waste Management and Disposal Plan<br>o Health and Safety Plan<br>o Road safety monitoring plan<br>o Traffic management plan | At finalization of detail designs prior to the contractor being mobilized at site and before commencement of any civil works | Supervision Consultant |
| | • Carry out regular monitoring to ensure that all contractors engaged on the project operate in a manner consistent with the requirements of the ESSs, including the specific requirements set out in the ESCP. | Throughout the construction period | Supervision Consultant |

| No. | Material Measures and Actions | Timeframe | Responsible Entity/Authority |
|---|---|---|---|
| **ESS2: LABOR AND WORKING CONDITIONS** | | | |
| **2.1** | **LABOR MANAGEMENT PROCEDURES** | | |
| | • Implement the labor management procedures (LMP) prepared in accordance with the requirements of national law and ESS2, which clearly spells out the (i) terms and conditions of employment; (ii) measures to ensure nondiscrimination and equal opportunity; (iii) provisions to form workers' organizations; and (iv) prevention of child and forced labor | Throughout the project period | Supervision Consultant and Contractor |
| **2.2** | **GRIEVANCE MECHANISM FOR PROJECT WORKERS** | | |
| | • Ensure establishment, maintain, and operate a grievance redress mechanism for Project workers to raise workplace concerns, as described in the LMP and consistent with ESS2. | Information relating to GRM to be disseminated to project workers prior to commencement of any works<br>Effective GRM for workers maintained throughout project implementation. | Supervision Consultant |
| **2.3** | **OCCUPATIONAL HEALTH AND SAFETY (OHS) MEASURES** | | |
| | • Ensure Prepare, adopt, and implement a Health and Safety Plan as specified in the ESMP including emergency prevention and preparedness specified in 1.2 above. | Prior to commencement of civil works and throughout project implementation | Supervision Consultant |
| **ESS3: RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT** | | | |
| **3.1** | • Ensure preparation of GHG emission assessment and mitigation plan for the construction phase. | Prior to the commencement of the civil works contract | Supervision Consultant |
| **3.2** | • Develop measures to ensure KMTT is designed, constructed and operated with environmentally sound systems for solid/wastewater collection and disposal | Design & construction stage | Supervision Consultant and Contractor |
| **3.3** | • Adopt and implement resource efficiency measures in design, construction and operation of the KMTT, as per green design criteria and measures outlined in the ESMP.<br>• Obtain the Green Building Accreditation for KMTT from UDA. Ensure that final building designs and construction methods are aligned with accreditation criteria and that application for accreditation be filed at the end of project closure | Throughout final design preparation and implementation | PMU E&S Staff, Supervision Consultant and Contractor. |

| No. | Material Measures and Actions | Timeframe | Responsible Entity/Authority |
|---|---|---|---|
| **ESS4: COMMUNITY HEALTH AND SAFETY** | | | |
| **4.1** | **COMMUNITY HEALTH AND SAFETY** | | |
| | • Recruit a health and safety expert to the contractor's team to obtain specialist guidance on managing anticipated safety risks throughout the construction and operational phases through appropriate designs, construction methods and operational mechanisms. | With the commencement of the civil works contract | Contractor, Supervision Consultant and PMU |
| | • Evaluate the risks and impacts of the project on the health and safety of communities, and incorporate mitigation measures into the project specific Health and Safety Plan to avoid (i) safety risks causing from structural elements of the project and; (ii) incremental risks of public's potential exposure to operational accidents or natural hazards, including extreme weather events; | Prior to the commencement of the civil works contract | PMU E&S Staff, Supervision Consultant and contractor |
| | • Ensure preparation and implementation of an emergency response plan during construction and operation phases of the project. | Prior to commencement of civil works | Supervision Consultant /Contractor |
| | • Conduct independent reviews throughout the stages of project design, construction, operation, and decommissioning particularly when structural elements or components of a project area are situated in high-risk locations, including those with risk of extreme weather or slow onset events, and their failure or malfunction may threaten the safety of communities. | During construction stage | Supervision Consultant and Contractor |
| | • Establish and implement appropriate quality management systems to anticipate and minimize risks and impacts of services provided by project on community health and safety. | Throughout the project period | Supervision Consultant and contractor |
| | • Incorporate sufficient mitigation measures in the final ESMP to avoid health and safety risks on communities, including GBV risks, that may be caused from behavior of project workers, labor influx, and emergency situations. | Prior to the commencement of the civil works | Supervision Consultant and contractor |
| | • Incorporate adequate mitigation measures into the ESMP to avoid or minimize the potential for community exposure to water-borne, water based, water-related, and vector-borne diseases and communicable and non-communicable diseases, that could result from project activities, taking into consideration the higher sensitivity of vulnerable groups. | Prior to the commencement of the civil works | Supervision Consultant and contractor |
| **4.2** | **TRAFFIC AND ROAD SAFETY** | | |
| | • Ensure Development and implementation a traffic management plan including technically and financially feasible road safety measures | Prior to commencement of civil works | Supervision Consultant |

| No. | Material Measures and Actions | Timeframe | Responsible Entity/Authority |
|---|---|---|---|
| | throughout project life cycle to avoid potential traffic and road safety risks to workers, communities, and road users. | | |
| **4.3** | **GENDER BASED VIOLENCE (GBV) AND SEXUAL EXPLOITATION AND ABUSE (SEA)** | | |
| | • Incorporate appropriate measures, based on GBV risk assessment as recommended in World Bank's Good Practice Note, to both Contractor's ESMP and the contractual agreements. | Prior to commencement of civil works | Supervision Consultant |
| **ESS5: LAND ACQUISTION, RESTRICTIONS ON LAND USE AND INVOLUNTARY RESETTLEMENT** | | | |
| **5.1** | **RESETTLEMENT PLAN** | | |
| **5.2** | **COMMUNITY ENGAGEMENT** | | |
| **5.3** | **COMPENSATION AND BENEFITS FOR AFFECTED PERSONS** | | |
| **5.4** | **GRIEVANCE REDRESS MECHANISM (see under ESS10)** | | |
| **ESS6: BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES** | | | |
| | • Develop and adopt appropriate measures in the ESMP to prevent contamination of the Meda Ela from the construction of the proposed infrastructure. | Prior to commencement of civil works | Supervision Consultant, Contractor |
| **ESS7: INDIGENOUS PEOPLES/SUB-SAHARAN AFRICAN HISTORICALLY UNDERSERVED TRADITIONAL LOCAL COMMUNITIES** | | | |
| | ***Not applicable to KMTT*** | | |
| **ESS8: CULTURAL HERITAGE** | | | |
| | • Implement the chance find procedures in the ESMP for chance find archaeological objects encountered during construction with expert recommendations from the Department of Archaeology as necessary. | During construction period | Supervision Consultant, Contractor |
| **ESS9: FINANCIAL INTERMEDIARIES** | | | |
| | ***Not applicable to KMTT*** | | |
| **ESS10: STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE** | | | |
| **10.1** | **STAKEHOLDER ENGAGEMENT PLAN (SEP) PREPARATION AND IMPLEMENTATION** | | |
| **10.2** | **GRIEVANCE REDRESS MECHANISM** | | |
| **CAPACITY SUPPORT (TRAINING)** | | | |
| | • Provide training to contractors and project workers on (i) occupational health and safety (OHS); (ii) labor management procedures (LMP); (iii) emergency prevention and preparedness and response arrangements to emergency situations; and (iv) prevention of gender-based violence and sexual exploitation and abuse (v) Chance find procedures for archaeological assets | At contract mobilization and repeated during project implementation as needed. | Supervision Consultant, Contractor |

### 2.5.5 Coordination with other agencies:

The Consultant shall liaise with relevant government authorities and other stakeholders concerned with the project implementation

# 3.0 Implementation Schedule

## 3.1. Implementation Schedule

The Project will be completed within 60 months from the commencement date of consulting services. The implementation schedule of the Project is shown in Table 2 below.

**Table 2: Project Implementation Schedule**

| Consultant Services | Duration | First(1) Year | | | | Second(2) Year | | | | Third(3) Year | | | | Forth(4) Year | | | | Fifth(5) Year | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 | 57 | 60 |
| Design Review( DR) | 4M | | | | | | | | | | | | | | | | | | | | |
| Land Acquisition & Resetlement | 12M | | | | | | | | | | | | | | | | | | | | |
| Construction Supervision(CS) | 32M | | | | | | | | | | | | | | | | | | | | |
| Defect Liability Supervision and Operation Support(DLS&OS) | 24M | | | | | | | | | | | | | | | | | | | | |

## 3.2 Staffing Requirement

Consultant's Team shall be made up of a Team Leader and minimum Staff Positions and Person-Months, selected from suitable expatriate and local professionals, would be required to effectively perform the Consultant service in all the areas of work comprising the Project. Consultants are free to bid in their proposals the staffing requirements to comply with these Draft Terms of Reference, which would include the cost effective determination of staff inputs.

Estimated time inputs as follows,

Phase I -Design Review (Lump Sum):

- Key Experts – 62 person months
- Non - Key Experts - 6 person-months

Phase II – Construction Supervision including Defects Liability Supervision and Operation Support (Time Based)

- Key Experts – 685 person months
- Non - Key Experts - 252 person-months

## 4. Reports and Schedule of Deliverables

Monthly meetings shall be held with the key staff of the consultant including the Team Leader, representatives of contractors and representatives of the client to review the progress of construction works. The meeting minutes and monthly progress reports shall be prepared and submitted by the consultant to the PMU on an agreed format. A quarterly review and co-ordination meeting with the key staff of the consultant including the Team Leader, contractor and Project Director of PMU will be held to review the progress of the construction works. During the meeting the consultant shall also provide a presentation encompassing all major components of the project and analyzing the construction period using Microsoft Power Point/ Multimedia presentation. Quarterly progress reports shall be submitted by the consultant to the PMU on an agreed format.

Following key reports/ outputs shall be delivered by the consultant as per timeline indicated against each item. In addition, the consultant shall comply fully with the reporting requirement in the works contract, where applicable and content acceptable to PIA and World Bank, as described in the Table 5.

## Table 5: Reports and Schedule of Deliverables

| No. | | No. of Copies | Schedule |
|---|---|---|---|
| **Design Review Stage ( Phase-01)** | | | |
| 1 | Inception Report | 7 | Within 4.0 weeks after commencement date |
| 2 | Minutes of weekly site meetings | 7 | Within 2 days of the meeting |
| 3 | Draft Design Review Reports | 7 | Within 7 working days from the submissions made by the Contractor |
| 4 | Final Design Review Reports | 7 | 7 working days after receiving comments on draft design review reports |
| 5 | Monthly Progress Report including Quality Assurance reports and the environmental and social compliance report | 7 | Within 10 days of each calendar month |
| 6 | Approved contractor's Quality Assurance plan | 7 | 2 weeks from the receipt of the plan |
| 7 | Quarterly progress reports | 7 | Within 10 days of each calendar month |
| 8 | Other Reports if required by PIA | 7 | If required |
| **Construction Supervision Stage ( Phase – II)** | | | |
| 1 | Inception Report | 7 | Within 4.0 weeks after commencement date |
| 2 | Monthly Report | 7 | Within 10 days of each calendar month |
| 3 | Quarterly Progress Report | 7 | Within 20$^{th}$ day of month following the quarter |
| 4 | Monthly Certificates for Payments | | |
| 5 | Reports after reviewing on the following from Contractor / Client<br>(i) Handbooks,<br>(ii) Operation and Maintenance manuals<br>(iii) Spare parts lists for items of plant and equipment<br>(iv) Warranties and guarantees of all items installed.<br>(v) Originals of licenses related to all application packages<br>(vi) All user guides and manuals<br>(vii) Maintenance manuals and schedules<br>(viii) All warranty documents related to hardware peripherals , apparatus, equipment's etc.,<br>(ix) All system configuration details<br>(x) All safety guidelines and safety plans<br>(xi) All system expandable plans and system design drawings | | |

| | | | |
|---|---|---|---|
| 6 | All the Contractor's reports in respect of the Contractor's Detailed Engineering Designs including all the calculations, with the Consultants approval. | | |
| 7 | As-Built Drawings. | | |
| 8 | Minutes of the meetings. | | |
| 9 | Maintenance Manual | 7 | Within two months of handing over |
| 10 | Final Reports | 7 | At the end of services |
| 11 | Project Completion Report | 7 | Within 2 months after the Completion date of the respective civil work Contracts. |
| 12 | Other Reports if required by World Bank and PIA | 7 | If required |

## 5. Facilities to be provided by PIA

The PIA will provide the following assistance to the Consultant:

a. Provide assistance to obtain the necessary visas, work permits and to comply with any other requirements for the purpose of undertaking the consultancy services;

b. Provide liaison with other Government offices and departments as required for facilitating the Consultant's work

c. Provide relevant project-related documents / background information as follows:

i. Public Transport Design & Operations Management Plan & Strategic Traffic Demand Management & Design Plan for Kandy: PT Volume I (DIMTS, 2016) – [Annex E.1 (Arch)]
ii. Public Transport Design & Operations Management Plan & Strategic Traffic Demand Management & Design Plan for Kandy: PT Annexure Volume II (DIMTS, 2016) – [Annex E.2 (Arch)]
iii. Detailed Design Report for Terminal Operating System, February 2017, by DIMTS -[Annex E.3 (Arch]
iv. Design brief - supplementary submittal for RFP (SCDP, 2016) - [Annex E.4 (Arch)]
v. Design Development Report of KMTT-Volume 1 April 2019- (Revision) and Volume II - [Annex E.5 (Arch)]
vi. Copy of signed contract with the contractor including a set of specifications and tender drawings
vii. All relevant data, including survey plans (hard copies and soft copy in

AutoCAD 2017 formats)

d. Assigning of liaising engineers to coordinate design when required according to consultant's requests
e. Assistance in coordinating with utility agencies

f. Issuance of permits necessary for the consultant's member to enter state/ private lands to conduct field survey when required
g. Assistance in obtaining approval for traffic diversion plans

h. The Consultant should provide including following facilities within their own contract.
    1. Vehicles for the Consultant
    2. Office for the Consultant
    3. Housing for the Consultant

## 6. Training of Client Personals:

Building capacity for key stakeholders involved in the overall terminal management, operation and maintenance of the KMTT through the provision of training, technical assistance.