**Republic of Turkey**

**Ministry of Transport and Infrastructure**

 **Rail Logistics Improvement Project (RLIP)**

**TERMS OF REFERENCE**

**For Engineering Design Review, Preparation of Bidding Documents for Civil Works, and Construction Supervision of Last-Mile Rail and Road Infrastructure Connectivity
to/from Filyos Port and Filyos Industrial Zone**

1. Introduction and Background

The Republic of Turkey achieved strong economic and social development performance since 2000, leading to increased employment and incomes. More recently, growing economic vulnerabilities and a more challenging external environment are threatening to undermine these achievements. Turkey has maintained a long-term focus on implementing ambitious reforms in many areas, and government programs have targeted vulnerable groups and disadvantaged regions. The poverty incidence more than halved over 2002-15, and extreme poverty fell even faster. During this time, Turkey urbanized dramatically, maintained strong macroeconomic and fiscal policy frameworks, opened up to foreign trade and finance, harmonized many laws and regulations with European Union (EU) standards, and greatly expanded access to public services.

Turkey, owing to her advantageous geostrategic positioning between Europe and Asia, has a strong potential to become a major regional logistics hub. Nevertheless, failure to develop the physical infrastructure of railways and maritime transport in a timely manner in response to the increased demand for transportation, inadequate institutional capacity and the current fact that highway transportation is the most efficient transportation mode for door-to-door transportation, have led to the intensification of freight and passenger transportation on the road network.

Turkey’s global standing in logistics performance has deteriorated over the past six years, signaling an urgent need to attain further improvements and reverse this negative trend. As early as 2012, Turkey was ranked as the 27th best-performing economy in international logistics by the World Bank’s Logistics Performance Index (LPI), a position that has steadily weakened since—to 30th in 2014, 34th in 2016, and 47th today. Much of the lost ground stems from relative under-performance in infrastructure provision and small market scale as well as the quality of logistics services, particularly in the railways.

Improvements in containerized rail intermodal transport and other forms of rail-based logistics are expected to boost economic dynamism and support job creation in Turkey. By enhancing access to domestic and international markets through improved connectivity, railway infrastructure investments are recognized as direct drivers of rail adoption and indirect drivers of sustainable economic growth. These investments are becoming even more strategically relevant now as a policy lever to support Turkey’s medium- and long-term economic recovery in the aftermath of the Covid-19 pandemic.

The **Rail Logistics Improvement Project** (hereafter referred to, interchangeably, as “RLIP” or “the Project”), financed by the World Bank and implemented by the Ministry of Transport and Infrastructure (MoTI) through its Directorate-General of Infrastructure Investments (DGII), aims to increase rail freight efficiency in Turkey by improving last-mile rail infrastructure connectivity (LMC), enhancing the operational efficiency of rail-enabled logistics centers, and strengthening institutional capacity in the rail intermodal and freight logistics sector. The project is developed around three main components:

* **Component 1: Construction of Railway Branch Lines and Multimodal Connections at Priority Network Nodes**, including the provision of last-mile rail (and in select cases, road/multimodal) connectivity at well-prioritized portions of the Turkish railway network. The initial focus of Component 1 is the provision of last-mile rail and road connectivity to/from the greenfield maritime port of Filyos on the Black Sea Coast, and the provision of last-mile rail connectivity to/from key industrial zones adjacent to Iskenderun Bay in the Çukurova region. Additional network nodes to be connected to the main railway network at the last mile will be identified during project implementation.
* **Component 2: Feasibility Studies, Detailed Engineering Designs, Environmental and Social Documentation, and Construction Supervision for Rail Last-mile Connectivity Infrastructure at Additional Freight Nodes**, including consulting services to produce Feasibility Studies—including the environmental and social dimensions of project feasibility—for 12 potential last-mile rail (and, where necessary, complementary road/multimodal) connectivity infrastructure subprojects at pre-identified freight generation-attraction nodes currently disconnected from the national railway network. Engineering designs and environmental and social safeguards instruments will also be produced for a subset of these subprojects. Approximately 2-3 subprojects will be selected for construction under Component 1, based on findings from FS, detailed engineering designs, and environmental and social safeguards documentation.
* **Component 3: Phase 2 Covid-19 Response Support, Institutional Strengthening, Capacity Building, and Project Implementation Support**, including consulting services to provide technical assistance and capacity building in the following areas: (i) support to MoTI to diagnose the medium- and long-term impacts of Covid-19 on multimodal logistics on the demand and supply sides, and design public, public-private, and/or purely private interventions, including interventions aimed to tackle behavioral and occupational aspects of risk prevention, to mitigate these impacts; (ii) support to DGII on the uniformization of rail technical standards across the national rail network; (iii) support to MoTI [DGII, DGTSR (Directorate-General of Transportation Services Regulation), TCDD (Directorate General of Turkish State Railways)] on the preparation of a strategy document for rail freight sector performance improvement; and (iv) support to TCDD through the development of an operational and management model for rail-enabled logistics centers consistent with international best practice, properly contextualized to the Turkish environment.

MoTI’s **Directorate-General of Infrastructure Investments (DGII)** has been given overall implementation responsibility of RLIP and will serve as its implementing agency at the working level. A **Project Implementation Unit (PIU)** has been established within DGII to oversee all aspects of project implementation across all 3 components. It is expected that RLIP will be implemented over a period of approximately 6 years, between July 2020 and December 2026.

1. Objective of the Assignment

The objective of this assignment is to provide support to DGII and the DGII PIU in the preparation and implementation of the Filyos Port last-mile rail and road infrastructure connectivity civil works under Component 1 of the project (hereafter referred to, interchangeably, as “the Filyos subproject” or “the subproject”).

Specifically, the assignment will provide the above support through two major tasks:

1. **Engineering Design Review and Update and Preparation of Bidding Documents for Civil Works.** The Consultant will review and, as necessary, expand, improve and/or update the existing engineering design for these works, **which were** **commissioned by DGII and delivered in 2019**, including drawings, technical specifications and bill of quantities, and prepare bidding documents for civil works based on the updated design;
2. **Construction Supervision.** The Consultant will provide construction/implementation supervision and contract management consulting services during the execution of the updated engineering design and associated civil works. Per the Project’s Procurement Plan, it is expected that the Filyos subproject civil works will be implemented under a single contract, to be competitively tendered through International Competitive Bidding. The contract may be awarded to one or multiple contractors (in the latter case, under a joint venture), and it may include sub-contractors.

Reviewing and updating the existing engineering design is necessary for 3 primary reasons:

1. The elapsed time since the design was produced makes it necessary to review it to ensure it is updated relative to current conditions on the ground;
2. It is necessary to ensure that the design is sufficiently detailed to successfully implement the FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (Red Book – 2017); and
3. There is a need to ensure that the design is consistent with the Filyos subproject’s environmental and social (E&S) documentation—Environmental and Social Impact Assessment (ESIA), Environmental, Social Management Plan (ESMP), and Resettlement Action Plan (RAP), Labor Management Procedure (LMP) and Stakeholder Engagement Plan (SEP)—which were developed by DGII during the period December 2019-May 2020, after the existing engineering design had been completed.

The design review process is also intended to strengthen the quality of the design: to ensure it is ‘construction-ready’; it adheres to national and/or international design standards applicable; it reflects good international engineering and construction practice, particularly vis-à-vis the EU, including measures to incorporate climate change adaptation and other resilience features into the design to address site-specific risks and natural hazards, such as flooding and seismic activity risk; and that it yields value-for-money to the Government of Turkey (GoT). The Consultant will then prepare bidding documents for civil works based on the revised design and reflective of the findings and guidance of the subproject’s environmental and social documentation.

The Consultant will provide construction supervision and contract management services as the “Engineer” as specified in the FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (Red Book – 2017), in accordance with accepted international practice, including but not limited to: survey and setting out checks; certification of contractor’s periodic claims; quality control of materials and workmanship; inspection of works; identification/preparation/review/assessment of variation orders; issuance of site instructions to the contractor(s); assessment of contractor(s’) suggestions and claims for additional works/costs; assessment of delays; monitoring of environmental, social, occupational health and safety, gender based violence (GBV), cultural heritage, community safety, and biodiversity impact risks; monitoring of all proper permits; assessment of operational performance of constructed infrastructure; monitoring non-compliances identified during inspections of the work, both through internal and external processes; and confirmation of satisfactory contract close-out, including during the Defects Notification Period as applicable.

1. Scope of Work for Engineering Design Review and Preparation of Bidding Documents

The engineering design review and preparation of bidding documents phase of the assignment will build on the existing engineering design for last-mile rail and road infrastructure connectivity to/from Filyos Port and its adjacent Industrial Zone, by conducting the following tasks:

* Confirm the technical quality and adequacy of topographic surveys, geotechnical surveys, soil investigations, and any other physical surveys of the subproject landscape necessary to inform the existing design, and carry out new surveys, either partially or fully, where gaps are identified to ensure up-to-date information is reflected in the engineering design for all works;
* Confirm the design review is in compliance with the assessments of biodiversity and other potential environmental impacts of the subproject (such as on cultural heritage sites and protected areas) as explained and elaborated in the existing ESIA and ESMP, and incorporate any necessary risk mitigation measures into the engineering design;
* Review the existing design documentation as to all technical content and assess its fitness of purpose, strengths and weaknesses, advantages and disadvantages, and the extent to which the design (a) adheres to any and all applicable national and/or international engineering standards, and (b) is consistent with good international design and construction practice. Based on gaps identified by this review, the Consultant will make adjustments, updates, expansion of content, and improvements to the design as deemed necessary to strengthen the design for use in the procurement process and eventual construction phase, to achieve the project development objectives[[1]](#footnote-2). At a minimum, this review should assess and improve the overall quality of the following inputs to and components of the existing engineering design:
* Rail branching lines and road/highway alignment plans and overall layout, including proper assessment of intersecting roads, stations, port berthing and cargo handling areas, adjacent industrial zone areas, and any other kind of facilities or points of interest in the subproject vicinity;
* Rail branching lines and road/highway alignment plans showing cross-sections, elevation, dimensions and similar operating parameters, and engineering supporting features such as bridges, culverts, drainage systems, over/under-passes, sub-stations, etc.;
* Detailed plans for civil works, for example as to the use and location of access roads, borrow pits, quarries, spoil containment areas, dykes, materials, depth of borings and other critical infrastructure resilience parameters, and other works setting out details, reference points and benchmarks, cross-sections, and typical construction details;
* Plans showing the deployment of signalization, electrification facilities (if any), and other operating equipment in typical detail at the detailed design level;
* Layouts, dimensions, operating parameters, and facility distribution and functionality of any railway/multimodal stations involved, including inter-connections between rail, road, and the maritime port, storage areas, cargo loading/unloading areas, shunting areas, road truck-in/truck-out facilities, and any ancillary facilities such as water treatment facilities, drainage systems, and pollution containment areas/equipment;
* Drawings showing the benchmarks/demarcation lines and stake out positions relating to resettlement activities in line with the existing regulations;
* Rail traffic management and road safety interventions, including a road safety audit of the existing design;
* Construction methods and schedules, including confirmation/determination of most cost-effective construction methods and equipment/personnel needs, packaging of works, and accompanying schedules;
* Bills of quantities and detailed cost estimates, including analysis of inputs and prices for items such as labor, materials, equipment, tax, overhead, profit, etc.; breakdown of costs for implementation of the ESMP for the subproject; breakdown of the foreign currency and local currency requirements, and related disbursement schedules; and
* Consistency of construction approaches, work areas, and right-of-way, with provisions of the subproject’s existing ESIA, ESMP, and RAP.
* Prepare tender documents using the most updated World Bank’s Standard Procurement Document i.e. Request for Bids – Works (without Prequalification) applicable, including relevant supporting documents such as instructions to tenderers, draft contract documents, conditions of contract; general and technical specifications, BOQs, and relevant drawings.
* Fully reflect in the detailed design the findings from the subproject’s E&S documentation, including compliance with applicable Turkish Government authority permits and approvals, as well as the findings from additional studies, to be conducted by the DGII PIU, as mandated by the ESIA and ESMP.
* Ensure that the subproject’s ESIA and ESMP is updated and revised in case the design review leads to changes resulting in additional environmental permit/approval and/or additional environmental and social assessment studies. Implement the management of change process as defined under the ESMP.

The details of the above tasks are presented in **Annex 1** of this Terms of Reference (ToR).

1. Scope of Work for Construction Supervision Services

The Consultant will supervise the construction of Filyos Port last-mile rail and road infrastructure connectivity civil works in accordance with the updated and revised engineering design and respective ESMP, including all ESMP sub-management plans.

Construction Works will include 4.3 km of last-mile dual carriageway highway connectivity and 13.3 km of last-mile double-track rail connectivity , including on-dock rail and two intermodal stations, between the Filyos port complex and the main national highway and railway linehaul. The rail connection, with a design speed of 60 km/h, will have a maximum inclination of 1.5%, with 300m minimum horizontal and 5,000m vertical curvature. The existing Gökçeler Rail Station will be expanded to 900m2, while a new Filyos Port Rail Station (1,100m2) will be built within the scope of the project. The project involves 13m-span, 11m high, and 387m long separate rail and road bridges as the most critical construction item, as well as 7 rail box culverts, 2 additional rail underpasses and bridges, and 1 road box culvert, which will provide reinforced flood protection. It also includes a multi-layer road interchange that will provide connection to the main highway line.

The detailed tasks for construction supervision services are presented in Annex 2 of this ToR.

1. Consultant Inputs

The successful fulfillment of the scope of services requires professional qualification in the fields of railway and highway engineering and associated facilities such as bridges, stations, terminals, and shunting yards (including drainage, structural, soils and materials engineering); transport engineering; road safety; flood control, infrastructure resilience, and disaster risk mitigation; construction methods engineering; environmental, social, occupational health and safety, and community safety mitigation; construction and contract management; and related fields.

It is anticipated that key professional staff of the Consultant’s team may include a combination of international and Turkish professional, as follows:

The Consultant shall assemble a team capable of implementing an integrated approach to engineering design, infrastructure resilience, and the attainment of desired outcomes in terms of construction quality; technical, social, and environmental risk mitigation; and value-for-money. The team shall have **at least** the following key experts (or equivalent combination of expertise):

* Project Team Leader
* Senior Railways Engineer
* Senior Highway Engineer
* Geotechnical Engineer
* Structural Engineer
* Mechanical Design Engineer
* Integrated Systems Design Engineer
* Chief Resident Engineer
* Procurement, Contract & Claims Specialist
* Civil Site Engineer (2 assignments)
* Mechanical Site Engineer
* Electrification Site Engineer
* Signalization and Telecommunication Site Engineer
* Railway Superstructure Expert
* Bridge and Precast Expert
* Rail Welding Expert
* Architect
* Quality Control/Assurance Engineer (3 assignments)
* Survey Engineer (2 assignments)
* Planning & Scheduling Engineer
* Social Specialist
* Environmental Specialist
* Biodiversity Specialist
* Occupational Health and Safety Specialist
* Archeologist

This **core team** shall be supported by other professionals (such as topographers, electrical/civil/mechanical technicians, accountant, documentation expert, translators, and any other engineers in relevant fields) as proposed by the Consultant. These additional profiles must indicate whether they are to be regarded as long-term/short-term and senior/junior so that it is clear which fee rate in the budget breakdown will apply to each profile.

All staff must be independent and free from conflicts of interest in the responsibilities accorded to them. As the final reports will be produced in both English and Turkish, the Consultant may wish to consider having translators on the team or propose a viable alternative for reliable and high-quality translation.

The Consultant shall employ personnel fully qualified and capable of performing all aspects of the Employer’s specific needs and requirements for the Services as outlined herein to the satisfaction of the Employer during the entire period of the Services. The Consultant shall clearly indicate the location (Home Office/Site/etc.) of proposed key staff in the proposal. The Project Team Leader or his/her designated substitute is required to be on Site during the supervision of the construction works.

The descriptions below provide further details on the roles, responsibilities, and required qualifications of the core team positions, including both the design review/bidding documents and construction supervision phases, as applicable:

The **Project Team Leader**, in addition to defining and supervising the activities of other members of the consultancy team and liaising with the PIU, is expected to provide key technical inputs, conduct quality assurance, ascertain consistency of results across individual tasks, and be the day-to-day single point of contact and party ultimately responsible to the Employer for the design review and construction supervision work. The Project Team Leader shall be a senior civil engineer holding a suitable graduate degree (MS or above) and have at least 20 years general working experience. The Project Team Leader shall have minimum 8 years of specific experience in a position for the management of construction supervision as Project Manager, Team Leader or equivalent position in the implementation of infrastructure projects implemented under FIDIC Conditions of Contract, preferably in railway sector. The Project Team Leader shall be fluent in written and spoken English.

The **Senior Railway Engineer’s** main responsibilities for the design review will include data confirmation and collection, including carrying out any required additional surveys; identifying critical engineering requirements and/or shortcoming in the existing design requiring improvements, and recommending cost-effective and sustainable technical measures for improvement; and reflecting findings from the environmental and social documents into the engineering designs for railway lines and stations. During the supervision phase, the Senior Railway Engineer will provide supervision and monitoring services in superstructure, infrastructure and integrated systems works within the context of railways to ensure strong construction outcomes by the contractor(s) with adequate technical, environmental, social, occupational, and community risk mitigation measures in place and observed throughout. In addition to holding a relevant university degree, the Senior Railway Engineer must have more than 15 years of general professional experience and minimum 8 years of specific experience in design and/or supervision and/or construction of railway and associated multimodal structures and facilities on similar detailed engineering design and construction tasks. The Senior Railway Engineer shall be fluent in written and spoken English.

The **Senior Highway Engineer** will assess all aspects of the highway/road portion of the existing design, corroborate and if necessary gather additional technical survey data, assess the proposed alignment relative to conditions on the ground and ESIA findings, assess adequacy of proposed design and construction approaches, and suggest improvements based on national and international best practice. During the supervision phase, The Senior Highway Engineer will provide supervision and monitoring services in superstructure, infrastructure works within the context of roads to ensure strong construction outcomes by the contractor(s) with adequate technical, environmental, social, occupational, and community risk mitigation measures in place and observed throughout. He/she should hold a university degree in civil engineering and should have at least 15 years of general professional experience and at least 8 years of specific experience in the design and/or supervision and/or construction of roads and associated works, with experience working with multimodal structures and connectivity infrastructure of similar profile (for example in connection with maritime ports). The Highway Railway Engineer shall be fluent in written and spoken English.

The **Geotechnical Engineer** will check and review design’s geotechnical reports for structures, geotechnical surveys. During the supervision phase, the Geotechnical Engineer will provide supervision and monitoring services in geotechnical fields to ensure strong construction outcomes by the contractor(s) with adequate technical, environmental, social, occupational, and community risk mitigation measures in place and observed throughout. In addition to holding a civil engineering degree, he/she must have at least 12 years of general professional experience and at least 8 years of specific experience in railway or highway construction projects . MS degree in geotechnical engineering will be an asset.

The **Structural Engineer** will, inter alia, review soil conditions data to assess their adequacy and the way the data inform the highway and railway design; upgrade engineering design of existing structures for resiliency against climate change impacts, extreme weather events, and non-climate natural disasters such as seismic activity; and assess the overall integrity of the proposed structures as well as their likely functionality and expected life span. In addition to holding a civil engineering degree, the Structural Engineer should have at least 12 years of general professional experience with at least 8 years of specific experience in structural design of railway or highway construction projects. MS degree in structural engineering will be an asset.

The **Mechanical Design Engineer** will assess the design of the mechanical works and mechanical specifications. In addition to holding a relevant university degree, he/she must be a versatile Mechanical Engineer having more than 10 years of general professional experience with at least 6 years of specific experience of working on similar detailed engineering design studies.

The **Integrated Systems Design Engineer** will assess the design of the electrification signalization and telecommunication works. In addition to holding a relevant university degree, he/she must be a versatile Electrical/Electronics Engineer with more than 10 years of general professional experience including minimum 5 years extensive experience of working on railway engineering design studies.

The **Chief Resident Engineer** will be a university graduate (preferably with a post-graduate degree) in civil engineering, and professionally qualified. At least 15 years of field working experience in broad-based construction management covering civil, structural, geotechnical engineering, with specific experience in at least 3 construction projects in senior positions over extended periods. Experience in construction management of large multilateral funded projects is preferred. Proven experience in multi-agency liaison and reporting and excellent communication ability and advanced computer skills. The Chief Resident Engineer shall be fluent in written and spoken English.

The **Procurement,** **Contract & Claims Specialist** will be responsible, during the engineering design review and bidding document preparation phase, for preparing bidding documents in accordance with the World Bank Procurement Regulations and the most current World Bank Procurement Documents applicable. The preparation of all bidding documents will be subject to clearance by both the PIU/DGII and the World Bank. During construction supervision, the Procurement, Contract & Claims Specialist will be responsible for contract management and processing of contractor(s’) claims. In addition to holding a relevant university degree with more than 12 years of general professional experience, he/she must have at least 8 years specific experience related to civil works procurement and/or contract administration and/or and claim handling on construction projects, under FIDIC Conditions of Contract for Construction. The Procurement, Contract & Claims Specialist shall be fluent in written and spoken English.

The **Civil Site Engineer** will be a university graduate in civil engineering. At least 10 years of general professional experience and 5 years of specific experience in railway construction projects is required. The Civil Site Engineer will provide supervision and monitoring services in civil works of the project.

The **Mechanical Site Engineer** will be a university graduate in mechanical engineering. At least 10 years of general professional experience and 5 years of specific experience in railway construction projects is required. The Mechanical Site Engineer will provide supervision and monitoring services in mechanical works of the project.

The **Electrification Site Engineer** will be a university graduate in electrical engineering. At least 12 years of general professional experience and at least 6 years of specific field working experience in railway construction projects is required. The Electrification Site Engineer will provide supervision and monitoring services in electrification works of the project.

The **Signalization and Telecommunication Site Engineer** will be a university graduate in electrical/electronics engineering. At least 10 years of general professional experience and 5 years of specific experience in railway construction projects is required. The Signalization and Telecommunication Site Engineer will provide supervision and monitoring services in signalization and telecommunication works of the project.

The **Railway Superstructure Expert** will be a university graduate in civil or railway engineering. At least 10 years of general professional experience and 5 years of specific experience in railway construction projects is required. The Railway Superstructure Expert will provide supervision and monitoring services for railway superstructure works of the project.

The **Bridge and Precast Expert** will be a university graduate in civil engineering. MS degree in structural engineering will be an asset. At least 12 years of general professional experience and at least 6 years of specific field working experience in highway and/or railway construction projects with specific experience on construction of bridges is required. The Bridge and Precast Expert will be responsible for supervision and monitoring related to highway and railway bridges and precast construction works.

The **Rail** **Welding Expert** will be a university graduate in a relevant engineering discipline with certification on welding. At least 10 years of general professional experience and at least 5 years of specific field working experience on welding is required. The Welding Expert will be responsible for supervision and monitoring related to rail welding works.

The **Architect** will be a university graduate in architecture. At least 10 years of general professional experience and 5 years of specific experience in construction projects is required. The Architect will be responsible for design review, supervision and monitoring of architectural aspects of the project.

The **Quality Control/Assurance Expert** will be university degree in a relevant engineering discipline, at least 12 years of general professional experience and at least 8 years of field working experience in infrastructure projects is required. The Quality Control/Assurance Expert will be responsible for tests of construction material samples, monitoring quality assurance plans and quality control tests being conducted in the project. The Quality Control/Assurance Expert shall be fluent in written and spoken English.

The **Survey Engineer** will be a university graduate in topographical engineering. At least 10 years of general professional experience, and at least 6 years of field working experience in linear construction projects is required. The Survey Engineer will provide supervision and monitoring services for surveying works of the project.

The **Planning & Scheduling Engineer** will be a university graduate in civil engineering. At least 10 years of general professional experience and at least 6 years of specific working experience in construction projects is required. The Planning & Scheduling Engineer will be responsible for managing the project planning and following and reporting regarding the project schedule as well controlling progress payments and final account processes of the project. The Planning & Scheduling Engineer shall be fluent in written and spoken English.

The **Social Specialist** will be responsible for ensuring that the proposed design incorporates the findings from and is consistent with the project’s ESIA, ESMP, Resettlement Action Plan (RAP) and Labor Management Procedure (LMP) as it relates to socio-economic and cultural factors that shape local communities in the area of impact, incorporating issues such as land acquisition, resettlement, livelihoods, labor management/working conditions and community health and safety. The Social Specialist will ensure that engagement activities with stakeholders are carried out in line with project Stakeholder Engagement Plan (SEP) (considering prevailing Covid-19 restrictions) and that stakeholders are made aware and have access to the project’s grievance mechanism. The specialist will oversee labor issues including worker grievances in line with LMP. During construction supervision, the Social Specialist will monitor and report on project performance as to social outcomes in accordance with the implementation requirements of the ESIA, ESMP, RAP, LMP and SEP. The Social Specialist is expected to have at least 12 years of general professional experience with at least 8 years of working experience on similar projects. The Social Specialist shall be fluent in written and spoken English.

The **Environmental Specialist** will be responsible for ensuring that the proposed design incorporates the findings from and is consistent with the project’s ESIA and ESMP as it relates to environmental issues, including the protection of biodiversity through mitigation measures proposed by these documents and the gathering of additional data on biodiversity and similar issues that remain pending and did not inform the existing design, as explained in the ESIA. During construction supervision, the Environmental Specialist will monitor—and report accordingly—the environmental performance of the project as it relates to the implementation requirements of the ESIA, ESMP, and associated sub-management plans, including site-specific ESMPs adopted by contractor(s). The Environmental Specialist is expected to have expertise in environmental engineering, biodiversity in water, marine and terrestrial ecosystems, and soil, water and air pollution, and water, air, and soil quality modeling; and have at least 12 years of general professional experience with at least 8 years of directly relevant experience in the field and significant internationalworking experience on similar projects. The Environmental Specialist shall be fluent in written and spoken English.

The **Biodiversity Specialist** will be responsible for ensuring that the ESIA and ESMPs and the respective sub-management plans (particularly those related to biodiversity) are duly implemented on site. This specialist will have particular expertise on international requirements on biodiversity, and preferably be experienced in International Financial Institution (IFI)-funded projects, and railway projects as well as national legislation. A university degree in biology or relevant field is required with a minimum of 12 years general professional experience and 8 years of specific field experience. This specialist can be assigned in the team on a part-time basis provided that he/she is present on the site when the activities can pose risk to sensitive areas with respect to biodiversity and at critical times such as migration, breeding seasons of the protected species, as will be identified in the respective biodiversity action plan and referring to the proposed construction schedule. The Biodiversity Specialist shall be fluent in written and spoken English.

The **Occupational Health and Safety (OHS) Specialist** will be responsible for assisting the design review process in proposing risk mitigation measures to ensure the design safety in the project infrastructure consistent with best industry practices, and preparing the required bidding OHS documents, which will be agreed with DGII/PIU. During construction supervision, the OHS Specialist will be responsible for managing and monitoring the occupational health and safety measures adopted at the project level in line with national and World Bank guidelines (Environmental, Health and Safety [EHS], Environmental and Social Framework [ESF], etc.), and for carrying out risk assessments to determine and mitigate possible OHS risks during construction. The OHS Specialist is expected to have at least 12 years of general experience, as well, minimum 8 years of specific experience in health and safety issues of construction projects. Knowledge of international best OHS practices and standards will be preferable. The OHS Specialist shall be fluent in written and spoken English.

The **Archeologist** will assist the design review process in proposing risk mitigation measures to manage the project’s exposure to cultural heritage sites and other sites of cultural value that must be preserved and protected. During the construction supervision phase, the Archeologist will oversee contractor practices as regards cultural heritage protection and assess and help minimize risks accordingly, consistent with the engineering design and the provisions of the ESIA, ESMP, and associated sub-management plans. He/she will be familiar with the requirements of Turkish law and World Bank policy in this respect. A university degree in archeology or related field is required, with a minimum of 12 years general professional experience and 8 years of specific field experience on similar projects, preferably linear construction projects. Having experience on IFI-funded projects and work experience in Turkey will be assets. The Archeologist shall be fluent in written and spoken English.

1. Duration of Assignment

**The Consultant is expected to provide services for a period of approximately 4.5 years from contract signing, through late 2025.** It is expected that the design review and bidding documents preparation work will be conducted during the first six(6) months of this period. This will be followed by the procurement process for contractor(s), which are expected to be mobilized by May 2022 and carry out construction between mid-year 2022 and late 2025. The winning Consultant will be expected to be available to support all of these processes as explained in this ToR.

For the effective use of Consultant’s resources, the Employer and the Consultant shall review the key and non-key expert input required for the next six(6) months of the Services starting from the effectiveness date of the Contract and based on the agreed staff plan, and the Consultant shall mobilize its personnel and be paid accordingly. This review shall be done every six(6) months throughout the duration of the Consultation Services. Depending on the implementation period of the facility and satisfactory performance of the Consultant as determined by the Employer, the Consultants may be requested to perform additional services downstream based on the terms and unit prices of the original Contract.

For the construction supervision phase of the assignment, and specifically during the post-works Defects Notification Period, a full-time presence of the Consultant’s team is not required. Instead, select visits of key staff, made flexibly on request of and in consultation with the PIU, would be sufficient. At the end of the regular construction period of the contract(s), before start of the Defects Notification Period, the Consultant shall prepare an indicative program for these visits for approval by the PIU. It is advisable that the site engineer(s) have at least monthly meetings with the contractor(s) during this period and stay in frequent contact with the PIU and the Chief Resident Engineer to advise on inputs needed.

1. Reporting

For the **Design Review phase**, the Consultant will be expected to produce the following:

* Inception Report (2 weeks after start)
* Design Assessment Report (3 months after start)
* Updated Detailed Engineering Design and Bidding Documents (6 months after start)
* Final Report (6 months after start)

All reports will be delivered in hard and soft-copy formats, in English and in Turkish, including drawings, designs, models, analyses, cost estimates and implementation plans for each aspect of the project. The bidding documents will be prepared in English based on the World Bank’s applicable Standard Procurement Documents. All deliverables will be subject to comments and feedback by the PIU, DGII, and other relevant MoTI sub-agencies (including TCDD), and the World Bank.

All data obtained during the execution of the study, from surveys to final report, shall be reported to the PIU in appropriate electronic formats proposed by the Consultant and agreed by the PIU, including partially or wholly detailed description/instructions of any survey methodologies.

The Consultant shall include in their reports detailed annexes explaining all assumptions and showing all calculations. Electronic copies of spreadsheets showing all calculations and raw data inputs should also be submitted.

For the **Construction Supervision phase**, the Consultant will provide, at a minimum, the following:

1. **Monthly Reports.** The Consultant shall prepare, at the end of each month, a brief progress report summarizing the work accomplished by the supervision team during the reporting period, supported by relevant media (photographs, video, etc.), drawings, and physical and financial progress charts. The report will also outline any problems encountered, whether administrative, technical (including environmental and social) or financial, and give recommendations on how these problems may be overcome. The report will provide an update on the status of implementation of the ESMP, including sub-management plans and OHS compliance. A brief summary of the progress of the works will be prepared for all ongoing works at the contract level, outlining problems encountered and recommended solutions. More frequent and less elaborate reporting, such as weekly workplans and checks of progress against the previous weekly work plan, can be provided based on agreement between the Consultant and the PIU during implementation.
2. **Quarterly and Periodic Reports.** The Consultant shall prepare a comprehensive report summarizing all activities of the subproject at the end of each quarter, and at any other time as considered necessary by the Employer, for example in case of delays in the construction works or in the event of technical or contractual difficulties. Such reports shall summarize not only the activities of the Consultant’s Team, but also the progress of the Works contract; all contract variations; change orders; the status of contractor claim(s), if any; status of the implementation of the environmental and social mitigation measures and OHS compliance, as per the respective ESMP and sub-management plans including RAP; brief descriptions of the technical and contractual problems being encountered; and other relevant information under the civil works contract.

The Consultant shall support the Employer in the management of the construction contract for the Works throughout its duration as to progress against the Contract Management Plan. The Consultant shall monitor the key performance indicators and report to the Employer successful compliance of both contracting parties with contractual provisions and progress. The Consultant’s report shall identify the potential risks that may cause time and cost overruns of the Works contract and determine their mitigation measures.

1. **Final Completion Reports.** The Consultant shall prepare a comprehensive Final Completion Report for each of the construction contract(s) which reaches a stage of substantial completion during the period of the services. These reports, which must be submitted immediately after the provisional hand-over of each contract, shall summarize the method of construction, the construction supervision performed, recommendations for future projects of similar nature to be undertaken by DGII, summarizing the construction activities, total effect of contract changes, claims or dispute or any other substantive matters having an effect on the amount, cost, and progress of the work shall be submitted. The reports should also summarize the environmental, social, and OHS compliance of the contractor(s) throughout the contract implementation, and certify that all finalization works such as sites rehabilitation, landscaping, removal of equipment and auxiliary infrastructure and proper management of waste materials have been duly implemented as per the respective ESMP and associated sub-management plans. The Project Manager shall summarize and consolidate in a single Team Final Report the key information from all supervision Final Completion Reports.

In addition, the Consultant will check and finalize ‘As Built Drawings’ prepared by the contractor(s), within one month after completion of construction on each contract, and submit same to the PIU, as well as final details of the project completed together with all data, records, field books, etc., properly indexed. A full set of as built drawings should also be provided in electronic format acceptable to the PIU.

1. Copyright and Use of Documents and Publications

Copyright of all drawings, reports, specifications, bills of quantities, calculations, software, models, source code and object code and other documents provided by the Consultant in connection with the assignment shall vest in DGII. The Consultant shall indemnify DGII against any claims associated with any action, claim, suit or demand arising out of or in respect of any breach of any intellectual property rights relating to the provision of the consulting services. The Consultant may with the prior consent of DGII publish, either alone or in conjunction with others, articles, photographs and other illustrations relating to the project.

1. Professional Standard of Care

In performing the services the Consultant shall exercise the degree of skill, care, and diligence normally exercised by members of the Consultant’s profession performing services of a similar nature, in accordance with the ethics of the Consultant’s profession.

Annex 1. Detailed Tasks Required for Engineering Design Review and
Preparation of Bidding Documents for Civil Works

The Consultant will carry out a review, improvement, and update of the existing engineering designs for last-mile rail and road infrastructure connectivity to/from Filyos Port and adjacent Industrial Zone. The Consultant will then prepare bidding documents for civil works to be used in the procurement process to mobilize the contractor(s) for the construction of these last-mile infrastructure connectivity facilities. The final output of this work will be a final, ‘construction-ready’ detailed engineering design as required for the successful implementation of the FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (Red Book – 2017); and a set of bidding documents prepared in accordance with the World Bank’s most updated Standard Procurement Document, i.e. Request for Bids – Works (Without Prequalification) with all technical specifications.

The specific tasks under the detailed engineering design portion of the assignment will be as follows:

TASK 1: Review of Existing Survey Findings and Data

The Consultant will review the output and data from any topographic, geotechnical, soil, material, and any other surveys that were conducted as part of the preparation of the existing engineering design, in order to assess the robustness of the surveys and the accuracy of their output vis-à-vis actual conditions on the ground. This review will support the process of refining the horizontal and vertical alignments and cross-sections of the railway and road connections and associated structures (such as railway stations) to then enable a review of construction quantities and need for land acquisition.

Review of the geotechnical and soil investigations should include review of borings, soundings, field testing, soil sampling, rock coring and the laboratory testing of recovered samples. The Consultant will assess the mechanical characteristics of the subsoil layers to confirm whether they have the required accuracy and the way they inform the design of the works. The Consultant will review the status and adequacy of the boring schedule. The Consultant will also corroborate that the geotechnical investigation work conducted for the existing design is consistent with stipulations in national law and international standards.

The Consultant will review data from any materials survey conducted to support the existing design, to identify the sources and quality of construction materials required for construction of the works. Where possible, bulk materials should be transported to the site of the works in pre-identified routes, and the existence and adequacy of proposed stockpile areas should be assessed as well. The status of material sources will need to be assessed for concrete aggregates, rock and other fill materials. The Consultant will corroborate whether adequate sampling was carried out at potential sources and whether the appropriate testing was carried out to ensure compliance with the design specifications. To the extent that any critical testing is missing in the existing design, the Consultant will conduct it if it is deemed necessary for completion and/or improvement of the existing design. In addition to materials sources, the Consultant shall review the status and design of suitable areas for environmentally acceptable disposal of discarded materials.

TASK 2: Review of Detailed Design Documents

The Consultant will review the content, technical quality, adequacy for construction, and consistency with Turkish and international standards and good engineering practice of all detailed design documents including main reports, design drawings, and calculation sheets. The Consultant will be responsible for updating these detailed design documents as necessary based on the authority permits, the findings from the environmental and social impact assessment (ESIA), Resettlement Action Plan (RAP), and Environmental and Social Management Plan (ESMP) for the Filyos subproject, which were prepared by the PIU during December 2019-May 2020, cleared by the World Bank, and publicly disclosed in May 2020, as well as the seasonal assessments as proposed by ESMP and conducted by PIU.

TASK 3: Unit Rate Descriptions (Preamble) Analysis

The Consultant will review and update as necessary the unit rate descriptions (Preamble) for the construction of railway branch lines, railway stations, highway lanes and bridges, rail-road-port connections, and other works to be constructed, including taxes and customs duties, taking into account either (a) official unit rate descriptions (Preamble) as developed and published by the Ministry of Environment and Urbanization (MoEU) of the Republic of Turkey and/or the Ministry of Transport and Infrastructure (MoTI) of the Republic of Turkey; or (b) unit rate descriptions (Preamble) of similar works recently undertaken in Turkey, or (c) both, as applicable, based on guidance by the PIU.

TASK 4: Cost Estimates

The Consultant will review the adequacy and accuracy of the existing bills of quantities and detailed cost estimates for civil works, broken down into foreign (direct and indirect) and local components as well as taxes and customs duties, and update them as necessary based on the review, findings, and revisions made under all preceding tasks.

TASK 5: Construction Schedules

In consultation with the PIU, the Consultant will review and assess the feasibility and adequacy of the proposed construction schedules, showing anticipated rate of progress of works and expenditures. The schedules will reflect seasonal climatic effects at the work sites, any environmental and social constraints such as protected areas, cultural heritage sites, seasonal implications due to biodiversity features existing on the site, any implications from Covid-19 related measures, and will take into account typical outputs of projects of similar nature.

TASK 6: Bidding Documents and Procurement Support

The Consultant will prepare bidding documents for the subproject according to the requirements of the GoT and World Bank Procurement Framework, with incorporation of relevant Environmental, Health, and Safety (EHS) and gender based violence (GBV) provisions applicable from the ESMP and its sub-management plans including RAP into the tender package.

Specifically, the Consultant will prepare tender drawings, civil work plans, longitudinal profiles, cross-sections, structural plans, and other details necessary to describe the scope of works to potential bidders and contribute to the eventual success of the ensuing works by the winning bidder(s). Civil works plans should include all existing features, expected land-take based on plotted earthwork limits and further right-of-way where different from existing.

During the ensuing procurement process, the Consultant will assist the Employer in the bid evaluation process as necessary, for example by providing advice on the adequacy of technical proposals to successfully implement the engineering design and carry out construction. Furthermore, the Consultant will assist the Employer as necessary in the preparation of the construction contract for signature.

**Annex 2. Detailed Tasks Required for Provision of Construction Supervision Services**

**TASK 1: Mobilization and Setup**

This Sub-Task comprises the following activities:

1. Mobilize supervision team members.

2. Review construction contract documents and outline (a) pertinent initial activities to be complied with by the construction contractor(s), and (b) obligations of DGII PIU (the Employer) to the construction contractor(s), if any. Also bring to the attention of the Employer any potential contractual issues that warrant their early resolution.

3. Establish the project office and facilities for the consulting services on site (in addition to any permanent presence in Ankara).

4. Review and coordinate overall and detailed work program featuring all pertinent activities and critical paths.

5. Prepare the project organization and continue to upgrade and update such chart. Also establish and maintain the lines of authority and communication and coordination procedures necessary to ensure orderly and unimpeded progress of the work.

6. Establish document control and filing system for the project office, including official correspondence, drawings, site instructions, variation orders, diaries and all site records. Establish the channels and modes of communication.

7. Develop program management and tracking system, using computer software such as Microsoft Project to schedule and monitor all aspects of construction activities.

**TASK 2: Contract Administration**

Assist the Employer on all aspects of preparing and administrating the implementation of subprojects and their related civil works, including the following tasks:

1. Review, comment, and recommend for approval the construction contractor(s)’ proposed implementation schedule and programs, including periodic updates as the works proceed. Assist in resolving possible conflicts in the work plans and schedules of the construction contractor(s). Monitor the schedule and propose alternative schedules and work plans, which may be necessary to compensate for any critical lack of construction contractor(s’) performance.

2. Examine, check, comment, and recommend for approval (in full or in part) or rejection by DGII PIU any construction contractor(s’) proposed detailed design changes for permanent work; any approved changes will necessarily require the written consent of DGII PIU.

3. Check and approve the construction contractor(s’) proposals for procurement of materials and equipment for incorporation into the permanent works, according to approved specifications and their appropriateness/adequacy.

4. Carry out inspection and witness testing at source of materials and equipment to be incorporated into the permanent work.

5. Monitor and report on physical progress of the works and financial disbursements.

6. Certify the construction contractor(s’) claims for progress payments and issue payment certificates.

7. Advise on the construction contractor(s’) requests for variation orders and prepare the issue of such variation orders after approval of the Employer.

8. Advise on any difficulties and disputes that may arise during construction of the works, propose solutions to them, and assist in the implementation of the solutions.

9. Examine, evaluate and recommend on any claims for additional time or payment submitted by the contractor(s).

10. Check and approve (a) as-built drawings, and (b) operation and maintenance manuals submitted by the contractor(s).

11. Certify partial, substantial and final completion of the works in accordance with provisions of the contract, including certification of stage and final acceptance tests.

12. Throughout the duration of the Project implementation stage, assist, as and if necessary, on liaising with provincial, city and local authorities and utility agencies/companies;; and regularly report to DGII on progress and other matters relating to subproject implementation.

13. Assist the Employer as may be necessary in meeting its obligations under the World Bank loan.

14. Assist the Employer in receiving and apprising World Bank review missions.

**TASK 3: Construction Supervision**

At all times, maintain sufficient site-based staff, including not only engineering but also environmental (including biodiversity), cultural heritage, occupational health and safety, and social staff, with clear allocation of duties, to supervise day-to-day construction of the works to complement the Contract Administration tasks listed above.

Generally, the Consultant shall ensure works are carried out as designed to an acceptable quality in accordance with the specifications and drawings. The Consultant will perform construction supervision tasks as specified in the FDIC type Works contract in the role of “Engineer”, including but not limited to the following tasks:

* 1. Interpret all drawings and specifications as may be required to ensure compliance of the construction contractor(s) with all provisions of the contract documents.
	2. Review, verify and approve the engineering documents and drawings prepared by the contractor(s) to ensure compliance with technical specifications and good industry practice during construction.
	3. Develop manuals pertaining to subproject quality assurance and quality control, train resident engineer(s) in applying the manuals.
	4. Check that all permanent works are constructed according to approved designs and specifications and issue “approval to proceed” memoranda based on approval of the construction contractor(s’) proposals for the construction of each item of the works. Report to PIU, with substantiation, any rejection of works that are not, or cannot be made, acceptable.
	5. Check and approve the construction contractor(s’) proposals for temporary works and construction methods.
	6. Establish field survey control, as required, in accordance with the construction contract. Checking the construction contractor(s’) setting out to ensure that work complies with the tolerances established by the contract documents and to ensure proper control of construction.
	7. Check that the construction contractor(s’) proposals accord with statutory or otherwise approved requirements for maintaining workers’ occupational health and public health, workers’ and community safety, and workers’ welfare and for compliance with approved measures to mitigate adverse environmental and social impacts in the vicinity of the works.
	8. Maintain daily site diaries of each Construction Contract including progress and performance, recording all unusual occurrences which may reflect on either the progress or performance, such as any incident or accident which has a significant adverse effect on the environment, the affected communities, the public and workers, public health outbreaks, weather, fire, civil commotion, strikes, lack of materials, uncontrollable interference from exterior sources, and other similar events.
	9. Cooperate with the Employer and the construction contractor(s) in matters relating to permits, licenses, right-of-way, and similar matters, which are within the authority of the Employer.
	10. Ensure that the construction contractor(s) have valid permission to access construction sites before work commences, and that their site occupation program complies with conditions applicable to that permission.
	11. In addition to ongoing monitoring, it is a normal practice of the Supervision Consultant to hold two meetings a month with the contractor(s). These site meetings will discuss key contractual matters – progress of works, technical performance, compliance with environmental and social requirements of the project(including biodiversity, cultural heritage, and occupational health and safety), costs, variations, time schedules, programming of upcoming works, difficulties encountered, and any other matters affecting works implementation or contractual matters.
	12. Minutes of all meetings to be submitted to the Employer in the monthly project report.
	13. Make and keep records of condition surveys at each site prior to commencement of construction.
	14. Maintain, as appropriate, at the site and/or at the office record copies of the civil works contract, engineering drawings, vendor catalogues and drawings, codes and standards, survey records, work measurements, test logs, samples, revisions, variation order information, and related documents. Distribute them as required.
	15. Assist the construction contractor(s) in developing alternative methods to overcome unforeseen obstacles to the performance or progress.
	16. Revise contract drawings as may be required to ensure compliance with the contract documents.
	17. Revise contract specifications when necessary for the proper guidance and coordination of selected materials and equipment conforming to the contract documents.
	18. Carry out additional investigations and surveys including revision of contract designs or provision of new design changes if it is deemed necessary during the construction.
	19. Check that the construction contractor(s) maintains adequate numbers of professionally and technically qualified staff, as may be specified in their contract, and with proper work tools and equipment, as well as proper personal protective equipment (PPE) to execute the works in a proper and safe manner.
	20. Ensure that the construction contractor(s) maintains adequate facilities for workers and their occupational health, as well as that of the surrounding communities, and report on any significant event/incidence accordingly and in an urgent manner.
	21. Keep daily records of the progress of works at construction site.
	22. Supervise, approve and keep records of, all site tests of the works according to the specifications. The Consultant shall approve an appropriate testing laboratory for all tests required and discuss the various testing requirements stipulated in its documents with the personnel of the laboratory. The Consultant shall give at least 24 hours prior notice to the laboratory for all tests, which are required to be undertaken by the latter. All samples shall be properly labeled in accordance with the requirements of the laboratory and the Consultant shall be responsible for the delivery of all samples for testing and for the collection of all test reports. All tests shall be performed at laboratory acceptable to the Consultant and Employer. The Consultants shall be responsible for interpreting the results received, instructing the repetition or the implementation of additional tests and taking whatever action necessary to ensure compliance with the contract requirements.
	23. Check and verify the construction contractor’s(s’) periodic measurements of completed work and maintain and update such records. Conduct survey to determine actual quantities of work where necessary and to be accomplished by the construction contractor(s).
	24. Assist the Employer in the coordination with other agencies to solve the problems on traffic, public nuisance and others as may arise from construction.
	25. Attend to, and report on, public complaints concerning execution of the works.
	26. Examine, approve and supervise all temporary and permanent traffic management proposals of the contractor and ensure that interruption to movement of all road users is kept to a minimum.
	27. Propose and present for the approval of the Employer any changes to the contract documents the Employer may deem necessary, providing information on any effects the changes may have on contract costs and time, and prepare all necessary change/variation orders including alteration of plans, specifications and other details for the approval of the Employer. The Consultant shall review and report on any financial claims submitted by the contractor(s) within 5 business days of receipt of such claims’ submission.
	28. Inform the Employer of problems or potential problems that may arise in connection with the construction contract and make recommendations for possible solutions.
	29. Coordinate and supervise all service/utility diversions and relocations required to facilitate the timely completion of the contract.
	30. Coordinate activities with various stakeholders including local authorities, communities and other consultants.
	31. Ensure that co-ordination and public awareness is maintained at all times
	32. Ensure that complaints from the public and other stakeholders are attended to expeditiously and take the necessary action to resolve any conflicts arising and each complaint is registered in the grievance mechanism of the Employer.
	33. Ensure that the contractor(s) does not involve child labor for the execution of the civil works contract in accordance with the provisions of the contract agreement.
	34. Regarding HIV/AIDs, gender-based violence, sexual and physical harassment, and human trafficking—monitor that the contractor(s) complies and carries out required actions as provided in the contract document, such as awareness and education of laborers and workers in relation to Code of Conduct.
	35. The Employer will authorize all additional services, other than minor extras that do not materially affect the scope of the supervision work, at the rates established in the construction supervision contract, or at rates mutually agreed upon when the services require the use of specialists not listed in the contract

**TASK4: Environmental and Social Aspects**

This task consists of the performance monitoring of environmental and social aspects prior to and during the construction of works to ensure that environmental and social requirements of the contract documents, and of the overall project, are met.

The Consultant shall coordinate this work as necessary with other consultants as may be mobilized by the PIU, and with external parties such as the World Bank. The monitoring of environmental and social aspects task includes the following sub-activities:

1. The Consultant shall ensure that the construction contractor(s) carries out the construction works in accordance with the contract documents and with the Site-specific Contractor-level Environmental and Social Management Plan (C-ESMP) and any other documents applicable (such as relevant sub-management plans). As a part of construction supervision tasks, the Consultant shall also supervise construction contractor’s(s’) implementation of environmental and social risk mitigation measures as identified in the project-specific environmental and social assessment documents such as ESIA, ESMP,RAP, LMP and SEP.

2. The Consultant will be responsible for assisting DGII with supervision of the implementation of social aspects of the project as part of its overall supervision responsibilities, in accordance with such documents as the ESIA, ESMP, RAP, LMP and SEP.

3. Since most adverse environmental aspects of the project will be mitigated through contract provisions under the supervision of the implementing agency, the construction supervisory team will play a key role in ensuring effective environmental management takes place during project implementation through day-to-day monitoring of contractor(s’) compliance with the environmental and social requirements of the contract.

4. The Consultant will witness the water, soil, noise and air quality and other elements of environment as relevant, for sampling and testing pre- and post-construction (at sites and in accredited laboratory) by the Construction Contractors to create an environmental database.

5. The monitoring activities will be recorded and reported periodically (weekly, monthly etc. as requested) to PIU/DGII.

6. If the construction contractor(s) is(are) found to be non-compliant with the ESIA, ESMP and associated sub-management plans, and/or RAP, LMP and SEP requirements, the Consultant shall file a non-conformity report and any relevant payment orders should be put on hold, until non-compliance issues are remedied satisfactorily.

7. The Consultant will coordinate with the Communication/Stakeholder Engagement Specialist of the PIU to ensure that the stakeholder consultations are carried out and their feedbacks are incorporated in the project planning and implementation.

8. The consultant will coordinate with the Communications/Stakeholder Engagement Specialist of the PIU to ensure that all project-related grievances/complaints are reported, recorded, and addressed in a timely manner.

**TASK 5: Defects Notification Period**

During the 12-month Defects Notification Period, there are several obligations of the contractor(s), which require attendance by the Consultant. During this Period, the Consultant is obliged to carry out any outstanding work that is specified in the (Partial) Completion Certificates, issued when (a part of) the works has been substantially completed and handed over to the Employer.

This Task comprises, but is not limited to, the following activities:

1. Check all construction and installation that has to be remedied and finalized, as identified in the (Partial) Completion Certificates.

2. Instruct the contractor(s) to rectify, and check the proper remediation of, any defects that appear during the Defects Notification Period.

3. Scrutinize and verify all statements of completion including financial statements submitted by the contractor(s) during the Defects Notification Period, and advise the Employer on their acceptability or on rectification required.

4. Upon completion of the Defects Notification Period and remediation and completion of all works to the satisfaction of the Employer, prepare a Defects Notification Certificate for issuance to the contractor, indicating that he has satisfactorily carried out the works, and is entitled to final payments under the contract.

5. Depending on the details of the conditions of the construction contract, the contractor(s) then submits his Final Statement indicating the final values of the work constructed, and the final sums to which he is entitled. The Consultant will thus scrutinize and verify this Final Statement and, upon acceptance by the Employer, prepare a Final Certificate to be issued to the contractor.

6. Advise the Employer on any outstanding claim, variation, or change order.

7. Assist and advise the Employer on the handling of any case of arbitration and litigation subsequent to the construction contract.

8. Review and recommend on any outstanding issue related to the Operation and Maintenance manuals for the equipment and installations, as prepared by the contractor(s).

9. Review and advise on any outstanding issue related to final As-Built drawings, as prepared by the contractor(s).

10. Prepare and submit a Final Completion Report to the Employer, summarizing the important features of the works, including construction schedules, reasons for deviations from the schedules, overviews of claims and variation orders, and including inventory of documents and records prepared during the construction period, that are handed over to Employer.

**TASK 6: M&E Framework Support and Other Supporting Activities**

This Task comprises the following activities:

1. Assist the Employer in the **periodic measurement and tracking of project performance indicators** as stipulated in the Monitoring & Evaluation (M&E) Framework of the project[[2]](#footnote-3).
2. Assist the Employer in the start-up of contract for the subproject.
3. Assist in coordination with the construction contractor(s).
4. Assist or participate, as requested, in support of the implementation of complementary activities to the construction works, such as those mandated under the Environmental and Social Management Plan (including associated sub-management plans), the Resettlement Action Plan, and any stakeholder engagement initiatives, such as Open Doors Days and the like.
5. Prepare various reports as outlined in the main section of these Terms of Reference, including the report on monitoring of the key performance indicators of the Construction Contract(s). Such reports shall be delivered to the Employer semi-annually during the performance of the Construction Contract(s).
1. For a full description of the project, its development objectives, and the way provision of last-mile infrastructure connectivity at Filyos Port is expected to contribute to those objectives, see RLIP’s Project Appraisal Document, available at:

<http://documents1.worldbank.org/curated/en/223371593828212937/pdf/Turkey-Rail-Logistics-Improvement-Project.pdf>. [↑](#footnote-ref-2)
2. See Section VII of RLIP’s Project Appraisal Document for details, available at: <http://documents1.worldbank.org/curated/en/223371593828212937/pdf/Turkey-Rail-Logistics-Improvement-Project.pdf>. [↑](#footnote-ref-3)