

**TÜRKİYE CLIMATE AND DISASTER RESILIENT CITIES
(CDRC) PROJECT**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
(ESMP)**

**Kartal Intersection and Link Roads Construction Project of
Kayseri Metropolitan Municipality**

July 08th , 2025

Document History

Revision	Submitted to	Issue Date	Revision Details
V1	İL BANK	April 07, 2025	Draft
V2	İL BANK	May 09, 2025	Draft
V3	İL BANK	June 05, 2025	Draft
V4	İL BANK	June 30, 2025	Draft
V5	İL BANK	July 07, 2025	Draft
V6	İL BANK	July 08, 2025	Draft

This document has been prepared by POSEİDON Environmental Social Consultancy Engineering Trade Ltd. Company.

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ABBREVIATIONS

ACM	Asbestos-Containing Material
AF	Associated Facility
CDRC	Climate and Disaster Resilient Cities
DG	Directorate General
E&S	Environmental and Social
EHS	Environmental, Health and Safety
EHSG	Environmental, Health and Safety Guidelines
EIA	Environmental Impact Assessment
ESA	Environmental and Social Assessment
ESAP	Environmental and Social Action Plan
ESF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standards
ETL	Energy Transmission Line
GFI	Ground Fault Interrupter
GIIP	Good International Industry Practice
GM	Grievance Mechanism
IFIs	International Financial Institutions
ILBANK	İller Bankası A.Ş.
ICSC	International Chemical Safety Cards
KPI	Key Performance Indicator
LEL	Lower Explosive Limit
OHS	Occupational Health and Safety
PAP	Project Affected People
PIU	Project Implementation Unit
PPE	Personal Protective Equipment
Project	Climate and Disaster Resilient Cities Project
POSEİDON	POSEİDON Environmental Social Consultancy Engineering Trade Ltd. Co
RD	Regional Directorate
RE	Renewable Energy
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheets
SEP	Stakeholder Engagement Plan
SOP	Standard Operating Procedures
Subproject	Kartal Intersection and Link Roads Construction of Kayseri Metropolitan Municipality
WB	World Bank

GLOSSARY OF TERMS

Associated facilities	<p>Facilities or activities that are not funded as part of the Subproject and are:</p> <ul style="list-style-type: none"> (a) directly and significantly related to the project; (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. <p>For facilities or activities to be Associated Facilities, they must meet all three criteria.</p>
Contractor	A person or organization providing services to an employer at the client worksite in accordance with agreed specifications, terms and conditions.
Excavated material	Materials/soils that are generated as a result of excavation and other similar activities carried out prior to construction
Legally protected area	<p>Designated terrestrial, aquatic or marine ecosystems managed under the related legislation to protect and sustain the biodiversity features, natural and associated cultural resources.</p> <p>Legally protected areas of Türkiye include a diversity of natural ecosystems and associated features ranging from coastal zones to mountains, deltas, forests, plains, steppe, lakes, river systems, deep valleys, canyons, and glaciers.</p>
Material borrow site	Sites, where loose material containing gravel, sand, silt, and clay, which is formed by the natural and geological processes of rock fracturing, fragmentation, alteration, transportation, and/or in-situ sedimentation, and which has the characteristics of slope debris, are extracted to be used as fill material.
Off-site accommodation	Accommodation of workers at hotels, rented housing, etc. available in the vicinity of Subproject area.
On-site accommodation	Accommodation of workers at temporary exploration camps, construction camps, dormitories, etc. established for the Subproject on site.
Risk	A combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event.
Topsoil	Part of soil that provides organic and inorganic materials, air and water required for vegetative growth, and is required to be stored separate from the subsoil.

EXECUTIVE SUMMARY

The Climate and Disaster Resilient Cities (CDRC) Project (hereinafter referred to as “the **Project**”) aims to enhance resilience to climate and disaster risks and build capacity to manage those impacts in Türkiye. The Project Development Objectives are to increase access to seismic and climate resilient housing, municipal infrastructure and services in Project provinces in Türkiye, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

Kayseri Metropolitan Municipality (hereinafter referred to as “the **Sub-borrower**”) has applied to ILBANK for sub-financing of Kartal Intersection and Link Roads Construction Project (herein after referred to as “the **Subproject**”), which is located in intersection of Melikgazi Districts of Kayseri Province.

ILBANK is considering financing the Subproject under the CRDC Project. In line with the ESMS, ILBANK has conducted an E&S screening and risk classification for the Subproject. Based on this assessment, the Subproject has been classified as having “**moderate**” E&S risk.

The Subproject has been evaluated as “Out of Scope” by Provincial Directorate of Environment, Urbanization and Climate Change ,as it is not included in the Environmental Impact Assessment (EIA) Regulation Annex-1 and Annex-2 lists, published in the Official Gazette dated 29.07.2022 and numbered 31907. The letter issued by Provincial Directorate of Environment, Urbanization and Climate Change, dated 02.10.2024 with reference number 10597815 states that the Subproject is out of the scope of the EIA.

The Kartal Intersection and Link Roads Subproject has been developed to address the increasing traffic congestion and insufficient capacity of existing signalized at-grade intersections (K-1, K-2, K-3) along key urban corridors in the Melikgazi District of Kayseri. The current configuration is inadequate in managing peak-hour traffic volumes and lacks the structural resilience required to maintain functionality during emergencies, including climate-related or seismic events. The intersections are located on designated emergency response routes and provide access to critical urban infrastructure such as the Recep Tayyip Erdoğan National Garden, which functions as a public assembly area during disasters. The proposed grade-separated junction (K-1, K-2, K-3) designs aim to improve network efficiency, ensure uninterrupted mobility under normal and emergency conditions, and enhance overall road safety. The Subproject directly supports the objectives of the CDRC Project by contributing to disaster- and climate-resilient urban infrastructure in a high-priority metropolitan area.

The scope of the Subproject mainly comprises the construction of new structures and reconstruction of main roads. Subproject in question includes the following components: a total of three newly designed junctions (K-1, K-2, K-3), comprehensive infrastructural units incorporating tunnels, relevant connecting roads, and grade-separated crossings. The subproject will comprise the construction of 21 new connecting roads, 2 main roads (Main Road-1 and Main Road-2), 2 underpass-type tunnels (Kartal Tunnel and Erciyes Tunnel), 3 intersections/junction¹, 3 vehicle underpasses (Kartal Underpass, Erciyes Underpass, Tacettin Veli Underpass), a stormwater drainage system, a tunnel lighting system, a power supply infrastructure, and safety barriers.

Although there will be new construction works, Main Road 1 and Main Road 2 will use the same direction and width with the existing roads and so stated as “reconstruction” in this ESMP. Main Road-1 corresponds to Şehit Tarkan Koçoğlu Boulevard and Mustafa Kemal Paşa Boulevard directions. It has a length of 1.601 kilometers, an average of 7 traffic lanes, and a road corridor width of 50 meters. Main Road-2 covers Talas Boulevard and Seydi Burhaneddin Boulevard direction with a length of 0.82 kilometers, and Mehmet Özhasseki Boulevard direction with a length of 0.61 kilometers, totaling 1.43 kilometers. This route has an average of 8 traffic lanes and a road corridor width of 50 meters. At Main Road-2, Talas Boulevard and Seydi Burhaneddin Boulevard merge with Mehmet Özhasseki Boulevard outside the project area, forming a single main road. The total road length is approximately 3.031 kilometers. The figure indicating the main roads is given in the content of the report.

There are 21 connection roads; however, they are integrated into the main road alignment and are included in the total road length of approximately 3.031 kilometers.

As part of the project, a temporary access road will be constructed within the Recep Tayyip Erdoğan National Garden. This temporary road is designed as a one-way, three-lane road with a length of 250 meters and a width of 15.50 meters. These interventions are expected to significantly improve network capacity, operational safety, and resilience of the urban transport system. On the other hand, there is no associated facility to be constructed within the scope of the Subproject.

During the construction period, excavated soil and construction debris will be transported to the designated Yılanlı Disposal Site. The selection of a quarry to supply fill material is pending and will be determined once the contractor is appointed. It is anticipated that a site with suitable geological characteristics and in close proximity to the project area will be selected. Similarly, the exact locations of the asphalt plant and mechanical equipment areas will be identified by the contractor and are expected to be situated in technically and environmentally appropriate zones near the construction zone.

The construction period is planned as 18 months including provisional acceptance, and will involve approximately employment of 126 personnel. A construction site will be established within the project corridor, including administrative offices and

¹ In this document, the terms “junction” and “intersection” are used interchangeably. Both refer to locations where two or more roads meet or cross.

accommodation facilities for workers. During the operation phase, maintenance and repair works will be carried out by teams affiliated with the Kayseri Water and Sewerage Administration, the Department of Mechanical Supply, the Department of Public Works, the Department of Transportation, and the Department of Parks and Gardens. These works will not be conducted by a fixed team; instead, teams will be formed as needed. It is estimated that an average of 10 personnel will be involved during the operation period.

The land required for the Subproject mainly consists of publicly owned parcels belonging to the State Treasury, Kayseri Metropolitan Municipality, and Melikgazi Municipality. The parcels owned by the State Treasury have been dedicated for road use in accordance with Article 11 of the Zoning Law No. 3194. Parcels owned by Melikgazi Municipality have been dedicated based on Articles 15 and 16 of the Zoning Law No. 3194. Parcels owned by Kayseri Metropolitan Municipality have been dedicated according to Article 999 of the Turkish Civil Code. In addition, four privately owned parcels were first partial expropriated by the Municipality under Article 8 of the Expropriation Law No. 2942, and subsequently registered for road use in accordance with Article 999 of the Turkish Civil Code. All these land acquisitions and dedications for road use were completed prior to construction.

Environmentally, the Subproject area is located in a densely urbanized zone with no ecologically sensitive areas. All construction will be confined to the existing road corridor. This has been validated through site investigations and spatial assessments conducted by the Consultant. However, approximately 460 coniferous trees (including species such as spruce and black pine) within the project area will be relocated. This relocation will be conducted using specialized technical equipment to prevent damage to the trees' root systems.

This ESMP has been prepared by POSEİDON Environmental Social Consulting Engineering Trade Ltd. Co. (POSEİDON) in the scope of the environmental and social impact and risk assessment studies conducted for the Subproject. Moreover, a Stakeholder Engagement Plan (SEP), Labor Management Plan, Traffic Management Plan, Contractor Management Plan and Cultural Heritage Management Plan is also prepared for the Subproject.

Kayseri Metropolitan Municipality is responsible for the implementation of the ESMP. Kayseri Metropolitan Municipality will include the ESMP in the tender documents when selecting contractors for construction works. In general, the "Kartal Junction Project" will have significant positive effects on the region.

1. INTRODUCTION

1.1. Background

The Climate and Disaster Resilient Cities (CDRC) Project (hereinafter referred to as “the **Project**”) aims to enhance resilience to climate and disaster risks and build capacity to manage those impacts in Türkiye. The Project Development Objectives are to increase access to seismic and climate resilient housing, municipal infrastructure and services in Project provinces in Türkiye, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

The CDRC Project is financed by the World Bank (WB). It includes five components as listed below. İller Bankası A.Ş. (**ILBANK**) will be the Financial Intermediary (FI) for Component 3, and the utilities of Project metropolitan municipalities will be sub-borrowers.

- **Component 1:** Institutional Strengthening to Enable Conditions for Urban Resilience (Ministry of Environment, Urbanisation and Climate Change – **MoEUCC**)

This Component will provide technical assistance to MoEUCC and local authorities in Project provinces and other provinces vulnerable to disaster risks, to strengthen their capacity to develop, implement, and monitor green and resilient urban transformation programs

- **Component 2:** Expanding Access to Resilient Housing (**MoEUCC**)

This Component will provide demand-side support for resilient housing in the Project provinces by financing subloans (in Turkish lira) at below-market conditions for eligible owners to retrofit or reconstruct their housing or commercial units in risky residential or mixed-use buildings to meet resilient building code² and energy efficiency standards

- **Component 3:** Investments in Climate and Disaster Resilient Municipal Infrastructure (**ILBANK**)

This Component will support ILBANK to on-lend loans (in Euro) with longer maturities and lower interest rates than the comparable domestic market to eligible utilities of Project metropolitan municipalities to undertake infrastructure investments that increase resilience against the impacts of climate-related and/or other disaster hazards.

- **Component 4:** Project Management, Monitoring, and Evaluation (**MoEUCC** for 4a and **ILBANK** for 4b)

This Component will have two sub-components that finance consultant and non-consulting services, goods, training, and operating costs as required by ILBANK and MoEUCC.

- **Component 5:** Contingent Emergency Response Component

This Component will allow the Government of Türkiye to respond promptly and effectively to an eligible emergency or crisis, that is a natural or human-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact by requesting a rapid reallocation of project funds.

Kayseri Metropolitan Municipality (hereinafter referred to as “the **Sub-borrower**”) has applied to ILBANK for sub-financing of Kartal Intersection and Link Roads Construction Project (herein after referred to as “the **Subproject**”), which is located in Melikgazi, Kocasinan, and Talas Districts of Kayseri Province.

ILBANK has established an **Environmental and Social Management System (ESMS)** effective from **24th of Dec 2023**. The ESMS is designed to align with the WB Environmental and Social Framework (ESF, 2018) including Environmental and Social Standards (ESSs) forming part of the ESF. It also adheres to the environmental and social (E&S³) policies and standards of other International Financial Institutions (IFIs) with which ILBANK collaborates. The ESMS will apply to all ILBANK projects and subprojects that commenced after the ESMS effective date financed through IFIs, including the Kartal Junction Project.

The ESMS aims to ensure systematic identification, assessment, management, monitoring, and reporting of the E&S risks and impacts in IFI-financed projects and subprojects of ILBANK. This process will be implemented on an ongoing basis throughout the loan duration of respective ILBANK projects in line with the requirements of the national legislation, international agreements and conventions ratified by Türkiye and E&S standards of lending IFIs, such as WB for the CDRC Project. As a key element of the ESMS, ILBANK has adopted and published an **E&S Policy**⁴ applicable to all IFI-financed ILBANK projects and subprojects.

² Resilient under this Project will refer to a building complying with the structural requirements provided under the Earthquake Regulation that has been updated and entered into force on January 1, 2019.

³ The acronym E&S refers to all aspects of “sustainability” as encompassed by the International Finance Corporation (IFC) Performance Standards, i.e. environment, social, health and safety, human rights and labor aspects.

⁴ <https://www.ilbank.gov.tr/sayfa/ilbank-environmental-and-social-policy>
<https://www.ilbank.gov.tr/sayfa/ilbank-cevresel-ve-sosyal-politika-dokumani>

Under ILBANK's ESMS and WB ESF (2018), subprojects are classified as High Risk, Substantial Risk, Moderate Risk or Low Risk taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of a subproject; the nature and magnitude of the potential E&S risks and impacts; and the capacity and commitment of the relevant sub-borrower.

ILBANK is considering financing the Subproject under the CRDC Project. In line with the ESMS, ILBANK has conducted an E&S screening and risk classification for the Subproject. Based on this assessment, the Subproject has been classified as having “**moderate**” E&S risk.

Given this classification, the Sub-borrower has retained a third-party consultancy company for the preparation of the E&S instruments required as per the E&S risk category assigned to the Subproject.

This **Environmental and Social Management Plan** (ESMP) has been prepared by POSEİDON Environmental Social Consultancy Engineering Trade Ltd. Co. (POSEİDON) for the Subproject in line with the applicable E&S requirements as set out in Section 1.3.

A list of individuals/organizations involved in the preparation or contribution to the development of this ESMP is provided in *Annex A*.

A stand-alone Stakeholder Engagement Plan (SEP), Labor Management Plan, Traffic Management Plan, Contractor Management Plan and Cultural Heritage Management Plan have also been developed by POSEİDON for the Subproject.

1.2.Objective of the ESMP

This ESMP has been prepared to outline the measures to be taken during the construction (implementation) and operation (throughout the sub-financing agreement lifecycle) of the Subproject to eliminate or offset adverse E&S impacts and risks, or to reduce them to acceptable levels; as well as the actions required to carry out these measures.

1.3.Overview of E&S Requirements Applicable to the Subproject

The Subproject will be implemented in compliance with the requirements of the applicable national legislation and international agreements and conventions to which Türkiye is a party of, and in accordance with the following international requirements:

- ILBANK Environmental and Social Management System (ESMS)
- WB Environmental and Social Framework (ESF, 2018) and the Environmental and Social Standards (ESSs) forming part of the ESF,
- WB Group General Environmental, Health and Safety Guidelines (EHSGs) (2007)
- WB Group EHSGs for Toll Roads (2007)
- WBG EHS Guidelines for Construction Materials Extraction

Table 1-1 outlines the relevance of the WB ESSs to the Subproject.

Table 1-1. Relevance of the WB ESSs to the Subproject

ESSs	Definition	Relevance to the Subproject
ESS 1	Assessment and Management of E&S Risks and Impacts	Relevant
ESS 2	Labor and Working Conditions	Relevant
ESS 3	Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4	Community Health and Safety	Relevant
ESS 5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not relevant in Türkiye
ESS 8	Cultural Heritage	Relevant
ESS 9	Financial Intermediaries	Not relevant to the Subproject
ESS 10	Stakeholder Engagement and Information Disclosure	Relevant

When national requirements differ from the levels and measures presented in the EHSGs, the Subproject will achieve or implement whichever is more stringent.

A summary of the national legislation and international standards applicable to the management of environmental, social, health, and safety aspects of the Subproject is provided in Annex I.

1.4. Review and Update

This ESMP will be reviewed and updated by the Sub-borrower as necessary during Subproject implementation to reflect changes in national legislative framework, ILBANK's policies, or other developments. Specific circumstances warranting updates may include changes in the organizational structure, significant incidents or accidents, or the incorporation of new tools, software or database into the ILBANK E&S Risk Management System.

The Sub-borrower will notify ILBANK of any updates made to the ESMP and will ensure that such updates do not result in deviation from the requirements set forth by the national legislation and the E&S requirements applicable to the Subproject.

1.5. Implementation Arrangements

The Sub-borrower will hold ultimate responsibility for implementing this ESMP, ensuring compliance by the Sub-borrower and contractor teams (including sub-contractors engaged for the Subproject) throughout the sub-financing agreement lifecycle.

The Sub-borrower will ensure that adequate financial and human resources are allocated to enable effective ESMP implementation across the Sub-borrower, supervision consultant, and contractor organizations throughout the sub-financing agreement lifecycle.

The Sub-borrower will determine the arrangements for the Subproject's operation and will be responsible for ensuring compliance with the national legislation and Operation ESMP during its operation phase.

The roles and responsibilities of the Sub-borrower, contractor and sub-contractor teams concerning ESMP implementation are detailed in Chapter 5.

2. SUBPROJECT DESCRIPTION

2.1.Subproject Information

The impact of the two earthquakes occurred in Kahramanmaraş on February 6, 2023, which a magnitude of 7.7 centered in Pazarcık and a magnitude of 7.6 centered in Elbistan, was examined to assess the province's response during past disasters and emergencies. Following the Kahramanmaraş Earthquake, numerous aftershocks, the largest being 6.6 in magnitude, were recorded and felt intensely in the surrounding provinces. The revised AFAD-RED (AFAD - Earthquake Rapid Damage and Loss Estimation System) estimated intensity map of the Pazarcık earthquake with a magnitude of Mw: 7.7 showed that it was felt in Kayseri as a magnitude V (moderate) (4.5 Richter Magnitude) and the revised AFAD-RED estimated intensity map of the Elbistan earthquake with a magnitude of Mw: 7.6 showed that it was felt in Kayseri as a magnitude V (moderate) - VI (strong) (4.5 - 5.1 Richter Magnitude). Additionally, traffic on the city's main arteries— Sht. Tarık Kocoglu Boulevard, Talas Boulevard, and Mustafa Kemal Pasa Boulevard—was paralyzed and remained non-operational for several hours.

This situation has subsequently led to questioning the capacity of the existing transportation infrastructure in the city center to respond to post-disaster needs. This experience highlighted the critical necessity of ensuring the functionality of emergency response routes, particularly during and after a disaster. Kartal Intersection and its connected roads have a strategic role in urban transportation due to providing access to the Recep Tayyip Erdoğan National Garden, which is an urban assembly area, and being located on emergency response routes.

Since the Kartal Intersection and its connected roads are on boulevards designated as emergency response routes and provide access to the Recep Tayyip Erdoğan National Garden, which is an urban gathering area, it is expected that traffic density will increase in addition to traffic congestion experienced during disasters and emergencies at the intersections. Therefore, this Subproject focuses on planning pedestrian and vehicular traffic at the Kartal Intersection and its connected roads to ensure ease of access, preparedness for disaster and emergency scenarios, and to make them resistant to disasters and climate.

This Subproject aims to determine emergency response routes of strategic importance during disaster and emergency situations in the Kayseri and to ensure uninterrupted traffic flow at the intersections along these routes during such events. The primary objectives include the establishment of vital escape corridors during disasters and emergencies and the development of urban infrastructure to be resilient against disasters within the framework of the Kayseri Provincial Disaster Risk Reduction Plan (İRAP). Concordantly, Mustafa Kemal Pasa Boulevard, Talas Boulevard, Seyyid Burhanettin Boulevard, Mehmet Ozhaseki Boulevard and Sht. Tarık Kocoglu Boulevard, located in the Melikgazi district of Kayseri, have been designated as emergency response routes in line with the "Emergency Action Plan" under the "Disaster-Resilient Cities" initiative. The Kartal Intersection and the roads located along these routes constitute critical nodes within the urban transportation network. A 1.29 km² Recep Tayyip Erdoğan National Garden, situated directly to the south of the intersections, serves as both an urban recreational area and a first-degree emergency assembly area with a capacity to accommodate approximately 517,500 people in disaster scenarios.

The scope of the Subproject mainly comprises the construction of new structures and reconstruction of main roads. Subproject in question includes the following components: a total of three newly designed junctions (K-1, K-2, K-3), comprehensive infrastructural units incorporating tunnels, relevant connecting roads, and grade-separated crossings. The subproject will comprise the construction of 21 new connecting roads, 2 main roads (Main Road-1 and Main Road-2), 2 underpass-type tunnels (Kartal Tunnel and Erciyes Tunnel), 3 intersections/junction⁵, 3 vehicle underpasses (Kartal Underpass, Erciyes Underpass, Tacettin Veli Underpass), a stormwater drainage system, a tunnel lighting system, a power supply infrastructure, and safety barriers.

Reconstruction of Main Road 1 and Main Road will use the same direction and width of the existing roads however, these roads will subject to new construction works. Main Road-1 corresponds to Şehit Tarık Koçoğlu Boulevard and Mustafa Kemal Paşa Boulevard directions. It has a length of 1.601 kilometers, an average of 7 traffic lanes, and a road corridor width of 50 meters. Main Road-2 covers Talas Boulevard and Seydi Burhaneddin Boulevard direction with a length of 0.82 kilometers, and Mehmet Özhasseki Boulevard direction with a length of 0.61 kilometers, totaling 1.43 kilometers. This route has an average of 8 traffic lanes and a road corridor width of 50 meters. At Main Road-2, Talas Boulevard and Seydi Burhaneddin Boulevard merge with Mehmet Özhasseki Boulevard outside the project area, forming a single main road. The total road length is approximately 3.031 kilometers. The figure indicating the main roads is given in the content of the report.

As part of the project, a temporary access road will be constructed within the Recep Tayyip Erdoğan National Garden. This temporary road is designed as a one-way, three-lane road with a length of 250 meters and a width of 15.50 meters. These interventions are expected to significantly improve network capacity, operational safety, and resilience of the urban transport system. On the other hand, there is no associated facility to be constructed within the scope of the Subproject.

⁵ In this document, the terms "junction" and "intersection" are used interchangeably. Both refer to locations where two or more roads meet or cross.

The relevant Subproject figures are presented in Figure 2-1 and Figure 2-2 .



Figure 2-1 Intersection Points (K-1, K-2, K-3)

The Subproject area commonly referred to by the public as the “Kartal Intersection” corresponds to the at-grade road corridor located between the existing K1 and K2 intersections. While K1, K2, and K3 currently exist as signalized at-grade intersections, they will be entirely reconstructed as grade-separated junctions under the Subproject. The main transportation axes surrounding the Subproject area are presented below;

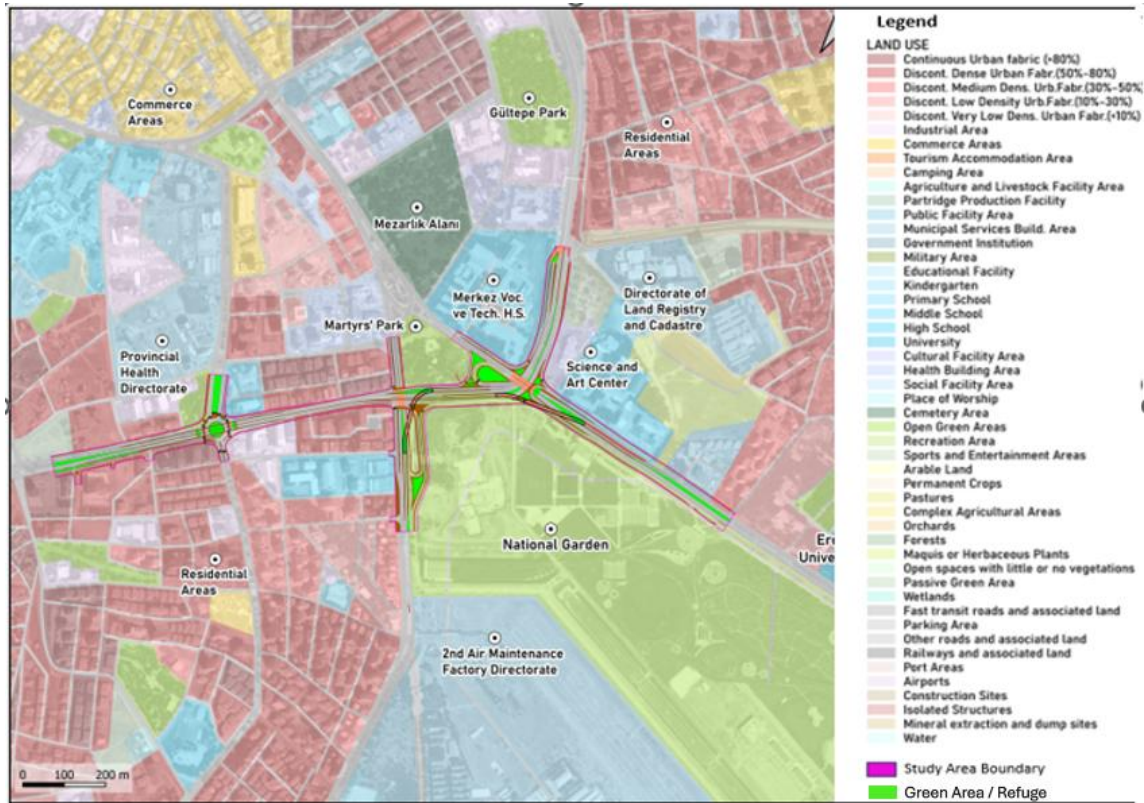


Figure 2-2 Intersection Points (K-1, K-2, K-3)

Although there will be new construction works, Main Road 1 and Main Road 2 will use the same direction and width with the existing roads and so stated as “reconstruction” in this ESMP. Main Road-1 corresponds to Şehit Tank Koçoğlu Boulevard and Mustafa Kemal Paşa Boulevard directions. It has a length of about 1.6 kilometers, with approximately 7 traffic lanes and a road corridor width of around 50 meters. Main Road-2 covers Talas Boulevard and Seydi Burhaneddin Boulevard direction, approximately 0.8 kilometers long, and Mehmet Özhaseki Boulevard direction, about 0.6 kilometers long, totaling roughly 1.4 kilometers. This route has around 8 traffic lanes and a road corridor width close to 50 meters. At Main Road-2, Talas Boulevard and Seydi Burhaneddin Boulevard merge with Mehmet Özhaseki Boulevard outside the project area, forming a single main road.. The main roads are presented in Figure 2-3 below;



Figure 2-3 Project Area and Main Roads

As part of the project, a temporary access road will be constructed within the Recep Tayyip Erdoğan National Garden. This temporary road is designed as a one-way, three-lane road with a length of 250 meters and a width of 15.50 meters.

The list of activities to be carried out within the scope of the project is provided below;

- Reconstruction of two (2) main roads (1.601 km long Main Road-1 and 1.43 km long Main Road-2)
- Construction of three (3) junctions/intersections
- A total of 21 connection roads are integrated into the main road alignment and are included in the overall road length of approximately 3.031 kilometers.
- Construction of two (2) tunnels (226.93 m long Kartal Tunnel and 214.28 m long Erciyes Tunnel)
- Construction of three (3) vehicle underpasses (Kartal Underpass, Erciyes Underpass, Tacettin Veli Underpass)
- Construction of rainwater drainage system (4,956.30 m long stormwater pipeline and stormwater pumping station with 400 m³ storage capacity)
- Construction of tunnel lighting system
- Construction of power supply system (7,000 m electrical infrastructure, two motor control rooms, 3 x 250 kW generators)
- Construction of safety barriers (guardrails and vehicle barriers on all underpass and tunnel ramps, vehicle barriers in enclosed sections)
- Construction of a temporary, one-way, three-lane road (250 m long, 15.50 m wide) within the Recep Tayyip Erdoğan

The term “road corridor” refers to the full right-of-way width allocated to each road section within the Subproject boundaries, including traffic lanes, shoulders, medians, sidewalks, and roadside structures. It defines the total spatial extent within which construction, access, and operational activities will be confined.

Key technical information regarding the Subproject components is provided in Table 2-1. There are no Associated Facilities (AF) directly linked to the Subproject. However, certain off-site facilities will be utilized during the construction phase, including licensed

disposal sites for excavation material and construction waste, permitted aggregate quarries, and temporary asphalt and concrete batching plants located in coordination with local authorities. These facilities and related environmental and social mitigation measures are detailed in Section 3.1.2.

During the construction phase of the Subproject, the Yılanlı Dumpsite will be used for the disposal of excavation soil and construction waste. The quarry to be used for fill material has not yet been finalized, as the contractor has not been selected; however, it is anticipated that a quarry site closest to the subproject area with suitable characteristics will be chosen. The asphalt plant and other mechanical equipment areas will also be determined by the contractor and are expected to be located in appropriate zones near the construction site.

Table 2-1 Key Technical Information on the Subproject

Component	Features
Main Roads	<p>Main Road-1 in the direction of Şehit Tarık Koçoğlu Boulevard and Mustafa Kemal Paşa Boulevard</p> <ul style="list-style-type: none"> Length: 1.601 kilometers Number of traffic lanes: approx. 7 Road corridor width: 50 m <p>Main Road-2 in the direction of Talas Boulevard and Seydi Burhaneddin Boulevard</p> <ul style="list-style-type: none"> Length: 0.820 kilometers <p>In the direction of Mehmet Özhaseki Boulevard</p> <ul style="list-style-type: none"> Length: 0.610 kilometers Number of traffic lanes: approx. 8 Road corridor width: 50 m <p>The two boulevards of Main Road-2 merge outside the project area, forming a single main road.</p> <p>Total road length is approximately 3.031 kilometers.</p>
Connecting Roads (the roads to be constructed as part of the Subproject will connect to the two reconstructed main roads upon completion of the construction works)	A total of 21 connection roads are integrated into the main road alignment and are included in the overall road length of approximately 3.031 kilometers.
Bridge	None.
Tunnel	<p>There are 2 tunnels in the project.</p> <p>1-Kartal Tunnel: The length of the tunnel structure, which is sized to provide an inner width of 8.0 m and a minimum of 5.15 m throughout the closed section, is 226.93 m. The tunnel, which is designed as an 80 cm thick cast-in-place reinforced concrete slab monolithically connected on Ø80 cm reinforced concrete bored piles, will be manufactured by top-down method.</p> <p>2-Erciyes Tunnel: The length of the tunnel structure, which is sized to provide an inner width of 8.0 m and a minimum height of 5.05 m along the closed section, is 214.28 m.</p> <p>The tunnel, which is designed as a 100 cm thick cast-in-place reinforced concrete slab monolithically connected on Ø80 cm reinforced concrete bored piles, will be manufactured by top-down method.</p>

Junctions	Within the scope of the Subproject, 3 Junctions will be built.
Viaduct	None.
Underpass	<ul style="list-style-type: none"> • There are 3 vehicle underpasses in the project. • 1-Kartal Underpass: Its inner width is 22.5 m and it is minimum internal clearance height of 5.33 m and 79.5 m along the closed section. A composite superstructure consisting of prefabricated prestressed pre-draft beams and cast-in-place flooring was preferred. • 2-Erciyes Underpass: Its inner width is 19.0~20.35 m and its length is 53.91 m and minimum internal clearance height of 5.20 m along the closed section. The underpass, which is designed as a 120 cm thick cast-in-place reinforced concrete slab monolithically attached on reinforced concrete bored piles, will be manufactured by top-down method. • 3-Tacettin Veli Underpass: Its inner width is 19.0 m and its length is 92.38 m with a minimum internal clearance height of 5.46 m and a closed section. The underpass, which is designed as a 120 cm thick cast-in-place reinforced concrete slab monolithically attached on reinforced concrete bored piles, will be manufactured by top-down method.
Overpass construction	None.
Operation control center	None.
Other	<p>Rainwater drainage system:</p> <ul style="list-style-type: none"> • 4,956.30 meters of stormwater pipeline • Stormwater pumping station with 400m³ storage capacity <p>Tunnel lighting:</p> <ul style="list-style-type: none"> • 2 units of luminance meters for tunnel lighting • Automated light intensity adjustment system • Asymmetric reflector projectors for underpasses • Symmetric reflector projectors for tunnels <p>Power supply:</p> <ul style="list-style-type: none"> • 3 x 250 kW generators • 2 motor control rooms • 7,000 meters of electrical infrastructure (NYY cables inside corrugated conduits) • Power supply points are already available at existing locations

	Safety barriers: <ul style="list-style-type: none"> • Guardrails and vehicle barriers on all underpass and tunnel ramps • Vehicle barriers in enclosed sections
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2.2.Subproject Location

The Subproject is located in Melikgazi district of Kayseri Province. Although Kocasinan, Melikgazi and Talas districts are located within the scope of the Subproject impact area, the Subproject implementation area is located within the borders of Melikgazi District (see Figure 2-23). Therefore, all activities such as land acquisition, environmental and social impact assessment, stakeholder engagement, etc. carried out within the scope of the Subproject were carried out in Melikgazi district. The reason for specifying three districts is that these districts, which are adjacent to the subproject area, are considered as regions that may be indirectly affected in terms of transportation connections and urban integrity. However, the directly affected population and concrete implementation area is limited to Melikgazi district. In this context, project implementation processes and analyses have focused basically on Melikgazi district.

The diversity of the Subproject area enhances both the urban and social functionality of the region, offering significant opportunities for rapid intervention and logistics during a disaster. Particularly, the Recep Tayyip Erdoğan National Garden, as an open green space, serves not only recreational needs but also plays a strategic role with its gathering and temporary shelter functions during disaster situations. The ease of access to this area from the intersections provides a considerable advantage in terms of both vehicular traffic and pedestrian access during emergencies.

The settlements crossed by the Subproject route are listed in Table 2-2. Details on parcel ownership, land acquisition methods and status are provided. Details on parcel ownership, land acquisition methods and status are provided. The subproject route, affected districts and neighborhoods are also illustrated on the map presented (see Section 2.6, Figure 2-15, Figure 2-16 and Figure 2-17.)

Table 2-2. Settlements Crossed by the Subproject Route

District	Neighborhood/Village*	Lot/ Parcel No.	Approximate Length of the Route Crossing the Settlement
Melikgazi	İsağa	1/108	0.15 km
	İsağa	1/124	0.07 km
	İsağa	1/125	0.12 km
	Köşkdagi	418/27	0.09 km
	Köşkdagi	418/28	0.14 km
	Köşkdagi	418/30	0.11 km
	Hunat	1200/26	0.18 km
	Hunat	1200/28	0.06 km
	Hunat	1200/30	0.08 km
	Hunat	1200/32	0.10 km
	Gediris	439/19	0.07 km
	Tontar	533/7	0.13 km
	Tontar	N/A (Designated Road)	0.05 km
	Tontar	12985/2	0.12 km
	Erenköy	14093/1	0.09 km
	Erenköy	13835/5	0.06 km
	Erenköy	17265/1	0.04 km
	Erenköy	13835/7	0.11 km
	Tontar	664/181	0.06 km

	Tontar	664/178	0.08 km
	Tontar	664/179	0.15 km
	Tontar	664/176	0.07 km

* Administrative boundaries and cadastral neighborhood boundaries differ. The neighborhoods in this report are defined based on cadastral boundaries

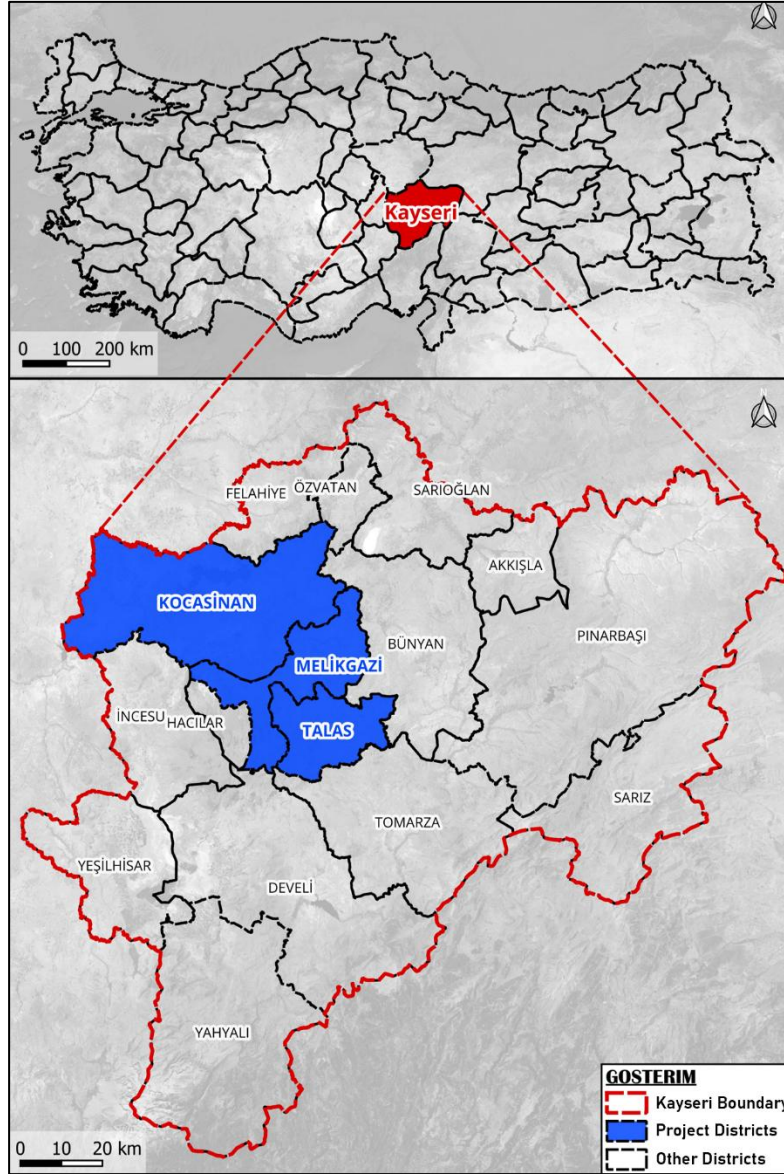


Figure 2-4 Borders of Melikgazi District

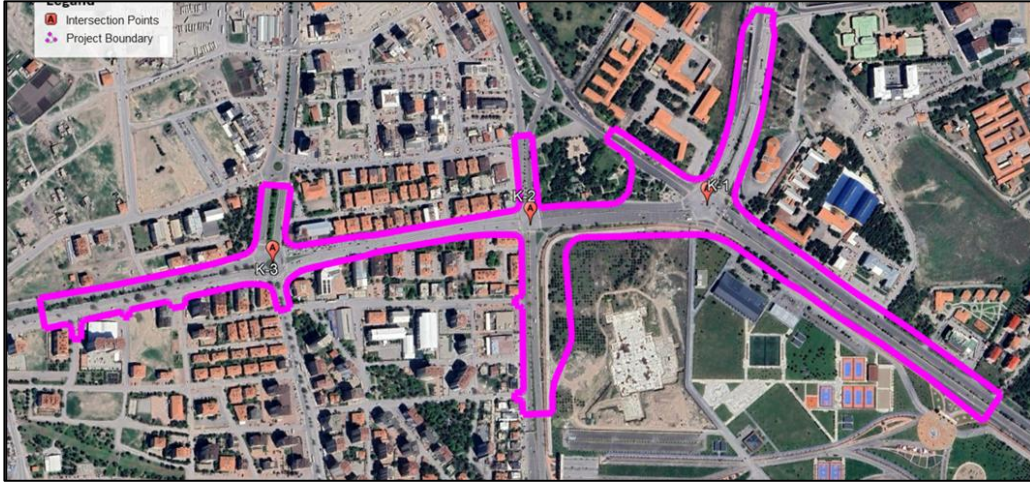


Figure 2-5 Kartal Intersection Points(K-1, K-2, K-3) Location Map

2.3.Site Access Route and Alternative Routes

The Subproject area can be reached from the Mustafa Kemal Paşa Boulevard, Talas Boulevard, Erciyes Boulevard, Seyyid Burhanettin Boulevard, Tacettin Veli Boulevard, Yavuz Street and Kartal Boulevard. During the construction phase of the Kartal Interchange, road closures will be implemented and existing traffic flow will be diverted to pre-determined alternative routes as shown below. Only existing roads will be used to access the Subproject area during construction activities. As part of the project, a temporary road will be constructed within the Recep Tayyip Erdoğan National Garden. Apart from this temporary road within the National Garden, there are no other temporary roads. This temporary road is designed as a one-way, three-lane road with a length of 250 meters and a width of 15.50 meters. Within scope of the Subproject, a temporary road route to be used during the construction period was planned to pass through land belonging to the Kayseri Provincial Mufti's Office. In this context, an official application was submitted to the Mufti's Office on 20.06.2025, via correspondence numbered E-26242767-622.03-2025-62/15618.

In response, the Kayseri Provincial Mufti's Office, by its letter dated 23.06.2025 and numbered E-35109208-800-6466804, stated that there was no objection to the use of the mentioned temporary route.(Annex-C).



Figure 2-6 Alternative Routes



Figure 2-7 Planned Temporary Road Alignment Within the Project Area

The fill material to be used during the construction activities of the Subproject will be brought from the quarry (exact location yet to be confirmed once the subcontractor is appointed). Alternative routes to the quarry have been identified (see Figure 3-1). Two routes have been identified, the first is on the D300 Highway and the second is on Hulusi Akar Boulevard. Traffic is moving in both directions on both routes.

Due to the construction works to be carried out within the scope of the Subproject, the excavation soil will be removed. This excavated soil will be taken to Yılanlı Dump Site, which is located in Melikgazi District, Sakarya neighbourhood, approximately 25 km by road the Figure 3-2 shows the route from the Subproject area to reach the Yılanlı Dump site. The dump site route itself does not pass directly through any village or neighborhood center, with other sections of the route consisting of state highways (Şht. Miralay Nazım Bey Boulevard, Fırat Street, Hasan Tahsin Boulevard, Yoncalı Street, Şht. Mehmet Tavsels Street, Varinlioğlu Street, and Doğanyurt Street).

During the construction phase of the Kartal Interchange, road closures will be implemented, and existing traffic flow will be diverted to pre-determined alternative routes. The traffic management plan has been prepared in detail to ensure minimum disruption for drivers and pedestrians.

2.4. Associated Facilities

There are no Associated Facilities (AF) under the Sub-Project. As such;

- There is no AF directly and significantly related to the Subproject
- There is no AF carried out, or planned to be carried out, contemporaneously with the Subproject
- There is no AF necessary for the Subproject to be viable and would not have been constructed, expanded or conducted if the Subproject did not exist.

2.5. Subproject Alternatives

As part of the feasibility studies conducted for the Kartal Intersection and its connected roads (K1, K2, K3), three distinct scenarios have been thoroughly analyzed based on technical, environmental, and operational criteria. These scenarios are categorized as the current situation (no-project scenario), the second-best alternative, and the best (preferred) alternative. Each scenario has been evaluated through comprehensive micro-simulation analyses in terms of traffic flow efficiency, carbon emissions, fuel consumption, level of service (LOS), and preparedness for disaster and emergency situations.

1. No-Project (Existing) Situation:

Examining the Kartal Intersection and connected intersections (K1-K2-K3): the K1 intersection is located at the intersection of Mustafa Kemal Pasa Boulevard, Talas Boulevard and Seyyid Burhanettin Boulevard; the K2 intersection is at the intersection of Mehmet Ozhaseki Boulevard and Sht. Tarik Kocoglu Boulevard; and the K3 intersection is at the intersection of Sht. Tarik Kocoglu Boulevard, Tacettin Veli Boulevard, and Yavuz Street.

The Kartal Intersection and the connected intersections serve as signalized and at-grade in the case of no project. The intersections work in coordination, and the cycle time is 110 seconds. The satellite image of the K1-K2-K3 intersections is provided below Figure 2-8.



Figure 2-8 The Satellite Image of the K1-K2-K3 Intersections

The 2024 micro-simulation results for this scenario indicate significant traffic issues:

- Service Level: F
- Average Delay: 174.90 seconds/vehicle
- Average Stop Number: 6.4
- Average Speed: 18.25 km/h
- Carbon Footprint: 11,528 kgCO₂e/h
- Fuel Consumption: 4,587.69 liters/h
- Number of vehicles (processed by simulation): 12,365 veh./h

2. Second-Best Alternative:

- This alternative proposes upgrades at the K1 and K2 intersections, primarily introducing modern roundabouts. Geometric changes include roundabout designs at K1 and K2, an overpass on the Talas Boulevard axis, an overpass on the Özhaseki Boulevard axis, a bidirectional underpass along the Sht. Tarik Kocoglu Boulevard axis, and an underpass for turns from Sht. Tarik Kocoglu Boulevard to Talas Boulevard

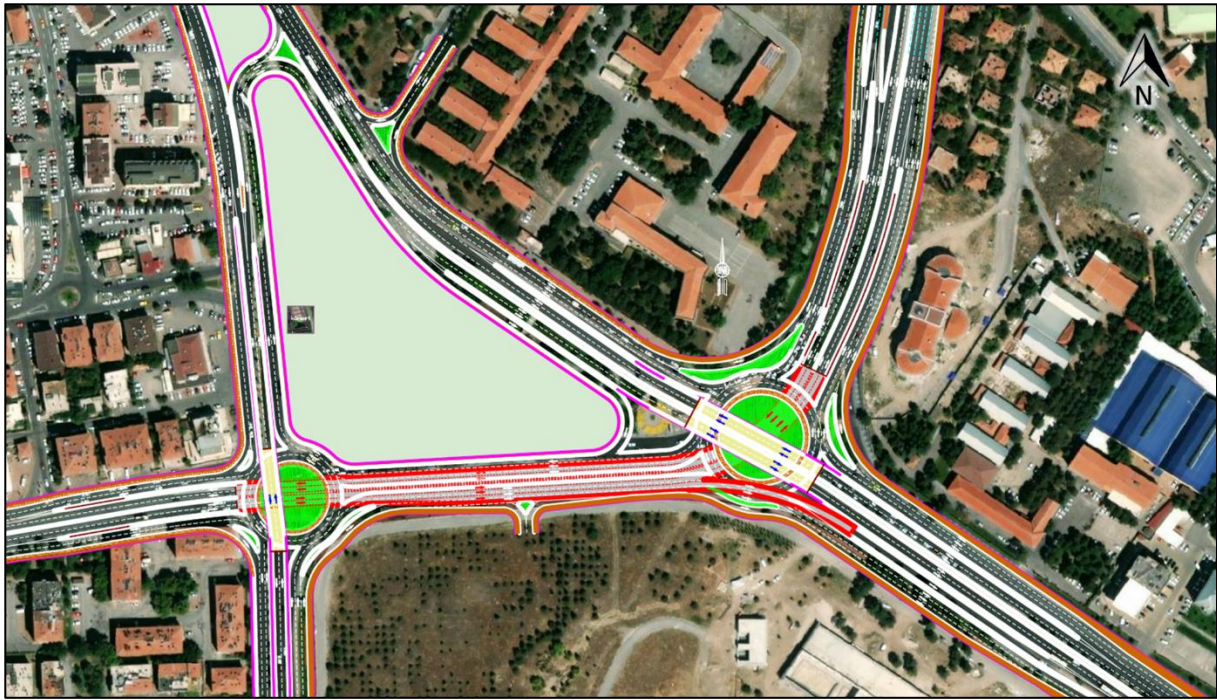


Figure 2-9 Second Best Alternative Geometric Layout

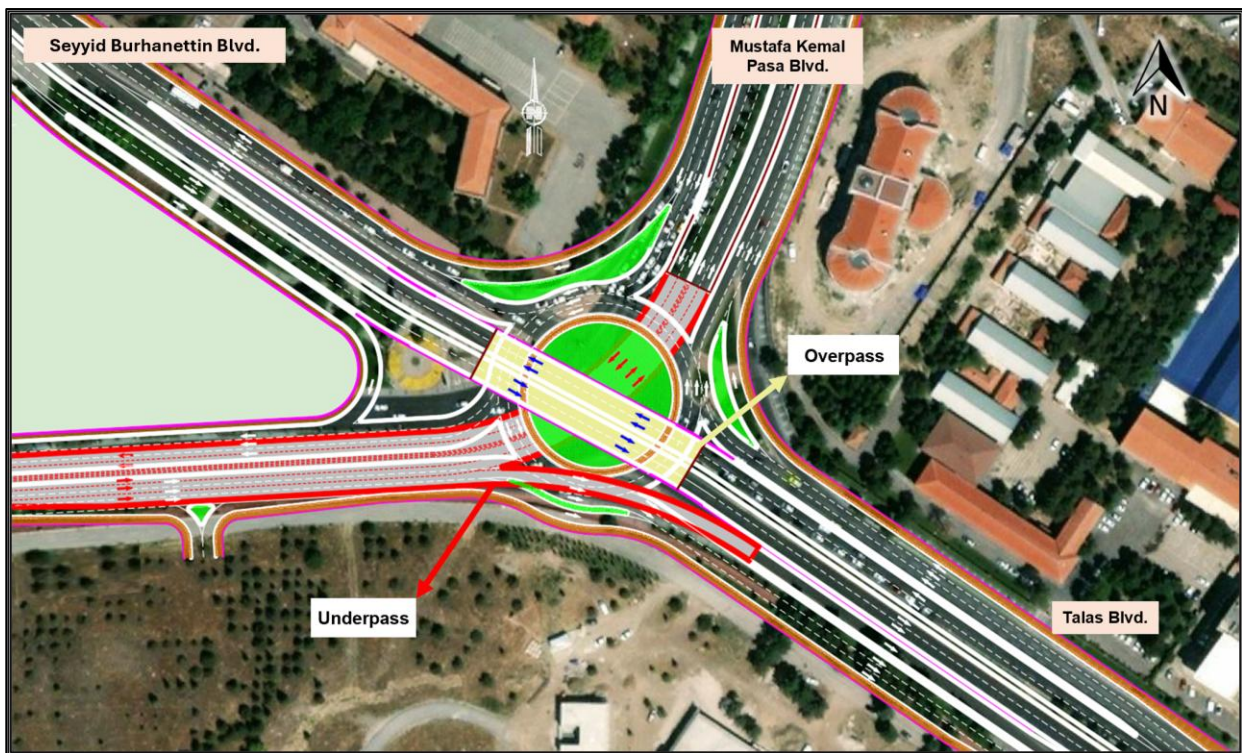


Figure 2-10 Geometrical Layout of Mustafa Kemal Pasa Blvd., Talas Blvd. and Seyyid Burhanettin Blvd. Intersection (K1)

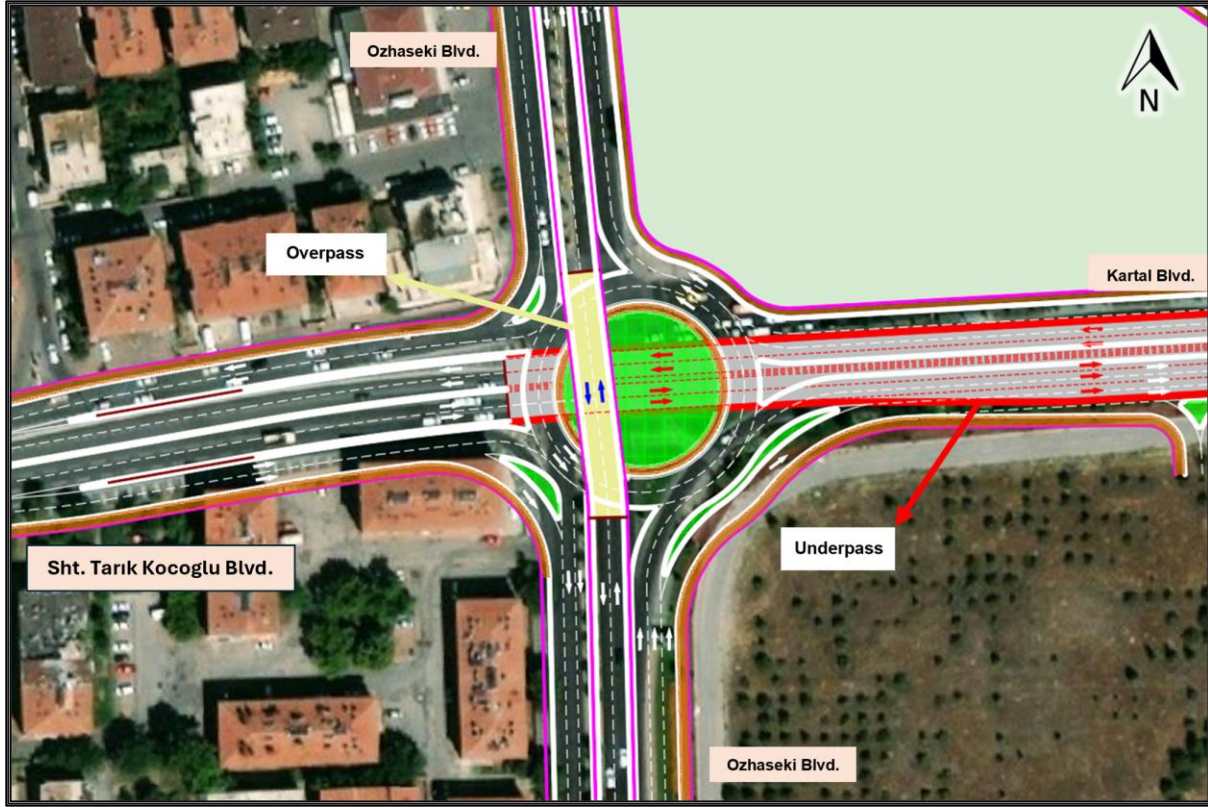


Figure 2-11 Geometrical Layout of Mehmet Ozhaseki Blvd. and Sht. Tarik Kocoglu Blvd. Intersection (K2)

The 2024 micro-simulation results show improvement compared to the existing situation:

- Service Level: E
- Average Delay: 79.82 seconds/vehicle
- Average Stop Number: 3.79
- Average Speed: 23.00 km/h
- Carbon Footprint: 4,127 kgCO₂e/h
- Fuel Consumption: 1,642.38 liters/h
- Number of vehicles (processed by simulation): 12,501 veh./h

3. Best Alternative (Preferred Alternative):

This alternative features a multi-level intersection design with underpasses and overpasses aimed at minimizing conflict points and achieving uninterrupted traffic flow. Specific geometric arrangements include lower-level passages for left turns from Talas Boulevard to Sht. Tarik Kocoglu Boulevard, transit passes on the Talas and Özhaseki Boulevard axes, and left turns from Mustafa Kemal Pasa Boulevard to Mehmet Ozhaseki Boulevard. Transitions from Seyid Burhanettin Boulevard to Talas Boulevard are also planned at the lower level. At the K3 intersection, transit passages along Sht. Tarik Kocoglu Boulevard are moved to a lower level, and a modern roundabout with a 20-meter island radius is introduced at the intersection of Tacettin Veli Boulevard, Yavuz Street, and Sht. Tarik Kocoglu Boulevard.

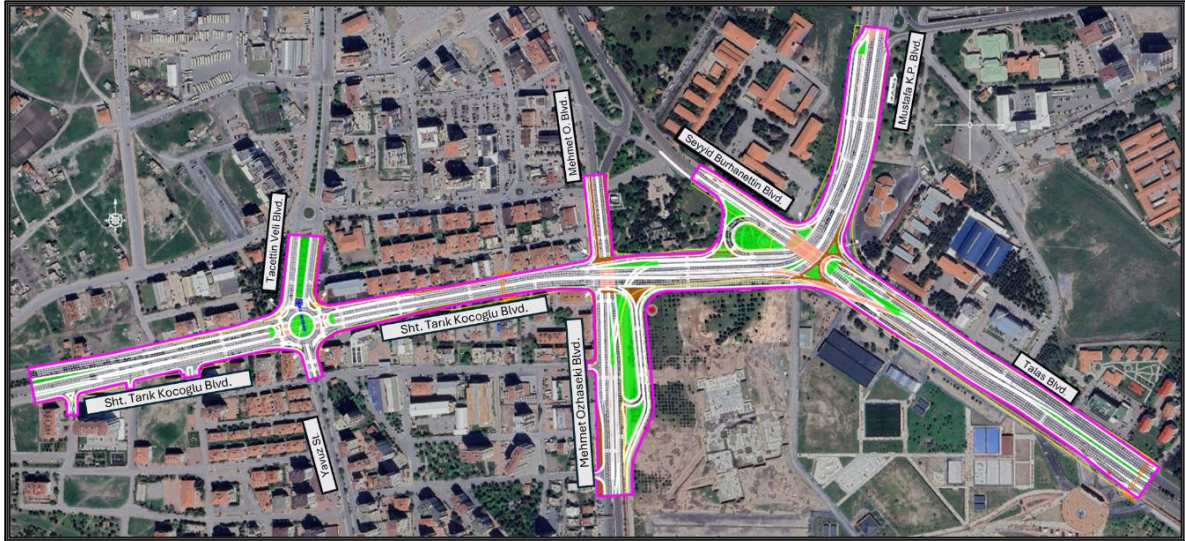


Figure 2-12 Best Alternative Geometric Layout

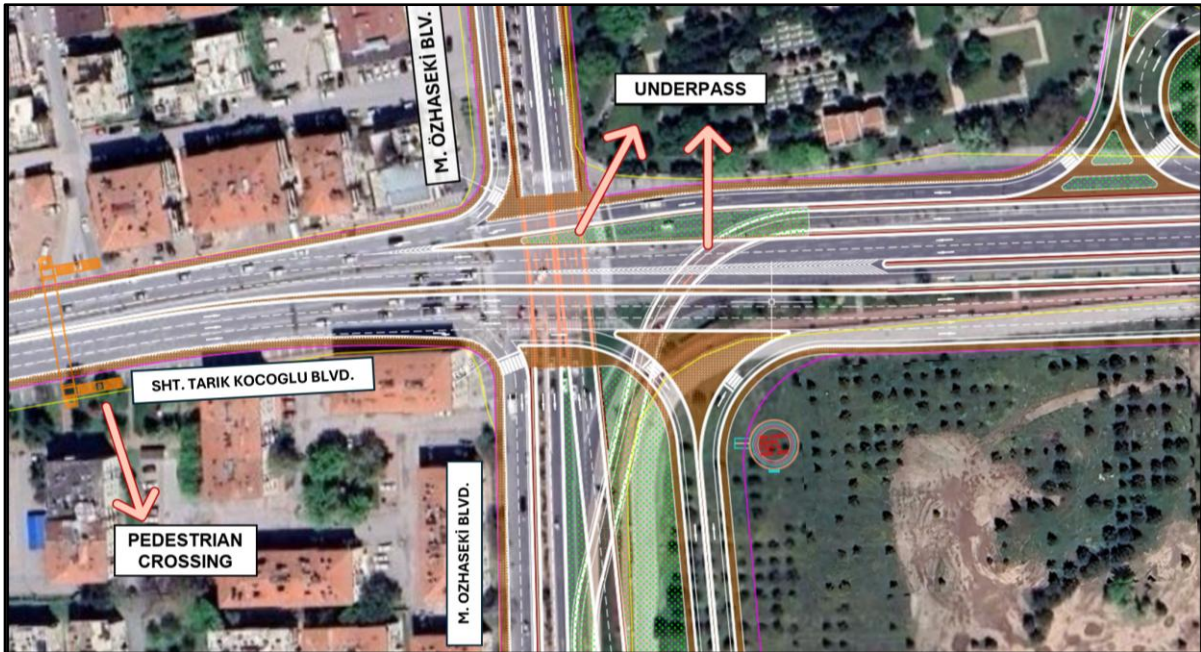


Figure 2-13 Geometric Layout of K2 Intersection at the Mehmet Ozhasaki Blvd. - Sht. Tarik Kocoglu Blvd.



Figure 2-14 Geometric Layout of K1 Intersection at the Tacettin Veli Blvd. – Yavuz St. And Sht. Tark Kocoglu Blvd.

The 2024 micro-simulation results demonstrate significant performance enhancements:

- Service Level: B
- Average Delay: 15.53 seconds/vehicle
- Average Stop Number: 0.44
- Average Speed: 47.77 km/h
- Carbon Footprint: 3,979 kgCO₂e/h
- Fuel Consumption: 1,583.35 liters/h
- Number of vehicles (processed by simulation): 12,620 veh./h

The performance results obtained from the network analysis conducted using the PTV VISSIM simulation program for Kartal Intersection and its connected intersections (K1-K2-K3) have been evaluated for the year 2024. The key findings are summarized below:

- The best alternative demonstrates a notable 91% reduction in average delay compared to the current situation. Furthermore, it delivers considerable environmental improvements, with approximately 65% reductions in both carbon emissions and fuel consumption.
- The second-best alternative achieves a 54% reduction in average delay, along with environmental benefits, providing around 64% improvement in carbon emissions and fuel usage compared to the existing scenario.

Based on the 2024 microsimulation outcomes, the best alternative clearly outperforms the others by significantly reducing delay, enhancing traffic flow, and minimizing environmental impacts. These results were decisive in selecting it as the preferred project option. The detailed simulation outputs are presented in Table 2-3.

Table 2-3. 2024 Microsimulation Results

Parameters	No Project (Current) Situation	Second Alternative Scenario)	Best (Project	Best Alternative (Project Scenario)
Service Level	F	E		B

Average Delay (sec./veh.)	174.9	79.82	15.53
Average Stop Number	6.4	3.79	0.44
Average Speed (km/h)	18.25	23.00	47.77
Carbon Footprint (kgCO₂e/h)	11,528	4,127	3,979
Fuel Consumption (liters/h)	4,587.69	1,642.38	1,583.35
Number of vehicles (veh/h)*	12,365	12,501	12,620

* The vehicle/hour value processed by the simulation.

2.6.Subproject Impact Area

In accordance with the World Bank Environmental and Social Standards (WB ESS1), the Area of Influence (AoI) refers to the area that may be affected by the Subproject's direct, indirect, and cumulative environmental and social impacts. This includes areas that may be impacted by components such as the construction site, access roads, dump sites, quarries, and other ancillary facilities.

The primary AoI has been delineated as a 500-meter buffer zone surrounding the core construction activities of the Kartal Intersection and its connecting roads. This area encompasses potential direct impacts such as dust, noise, vibration, traffic disruptions, and visual and safety-related concerns. Within this radius, the following neighborhoods of Melikgazi district are identified as directly affected: Erenköy, Esenyurt, Gültepe, Hunat, Battalgazi, and Tacettinveli. Local businesses and institutions operating along this corridor have also been identified as stakeholders due to their proximity and potential exposure to construction impacts (see Figure 2-18 and Figure 2-19). This delineation has remained unchanged following site visits and technical assessments, as it was deemed sufficient to represent the likely extent of direct impacts. The road corridors between intersections (K-1, K-2, and K-3) are also included within this 500-meter AoI (see Figure 2-15).

To strengthen the impact assessment, a secondary impact area has also been identified along the dump site and quarry access routes, considering cumulative effects from increased vehicle traffic, noise propagation, and disruptions to daily life. A 250-meter corridor has been delineated around these routes in line with WB ESS1 Guidance Notes(see Figure 2-20 and Figure 2-21).

Dump Site Access Route Neighborhoods:

Gültepe, Erenköy, Hunat, Tacettinveli, Battalgazi, Esenyurt, Güllük, Aydınlikevler, Hürriyet, Osman Kavuncu, Yeniköy, Kazımkarabekir, Sakarya, and Esentepe.

Quarry Access Route Neighborhoods:

Tacettinveli, Hunat, Erenköy, Fatih, Gökent, Şirintepe, Mimarşinan, Tavlusun, Germir, Kılıçaslan, Gültepe, Köşk, Yıldırım Beyazıt, Gesi Kayabağ, Gürpınar Yeşil, Gesi Güzelköy, Büyükbürüngüz (Melikgazi District); Mevlana, Kuruköprü, Reşadiye, Yukarı, Tablakaya (Talas District); Yakut, Argıcık, Yıldızevler, Uğurevler, Erciyesevler, Fevzi Çakmak, Yeni, Yenidoğan, Serçeönü (Kocasinan District).

While no additional land acquisition is foreseen beyond previously completed partial expropriations in the main construction area within Melikgazi, the dump site and quarry access routes follow existing road networks and do not require new land acquisition. The potential impacts on these neighborhoods are primarily temporary and associated with increased construction traffic, dust, and noise. These neighborhoods have been included in the stakeholder engagement process due to their proximity and potential exposure to cumulative and indirect effects. Mukhtars of the listed neighborhoods were informed and consulted, and feedback was obtained. Local businesses and institutions along the access routes were also engaged. Concerns raised—such as traffic safety, access restrictions, and dust control—were documented and reflected in the mitigation plans. Further details on stakeholder identification and engagement activities are provided in the Stakeholder Engagement Plan.

In line with WB ESS1, cumulative impacts were also taken into account as part of this assessment. These include overlapping effects from vehicle traffic, noise, dust, and general disruption caused by other concurrent infrastructure or urban works in the vicinity of the Subproject. Although no specific overlapping construction was observed during site visits, the assessment assumed cumulative exposure risks for residents and road users along the access routes and near the junction areas. These risks were considered in the design of mitigation measures detailed in the Environmental and Social Management Plan. This tiered and spatially defined approach to impact assessment ensures that both environmental and social risks are thoroughly addressed and that mitigation planning is responsive to the needs of all potentially affected groups.

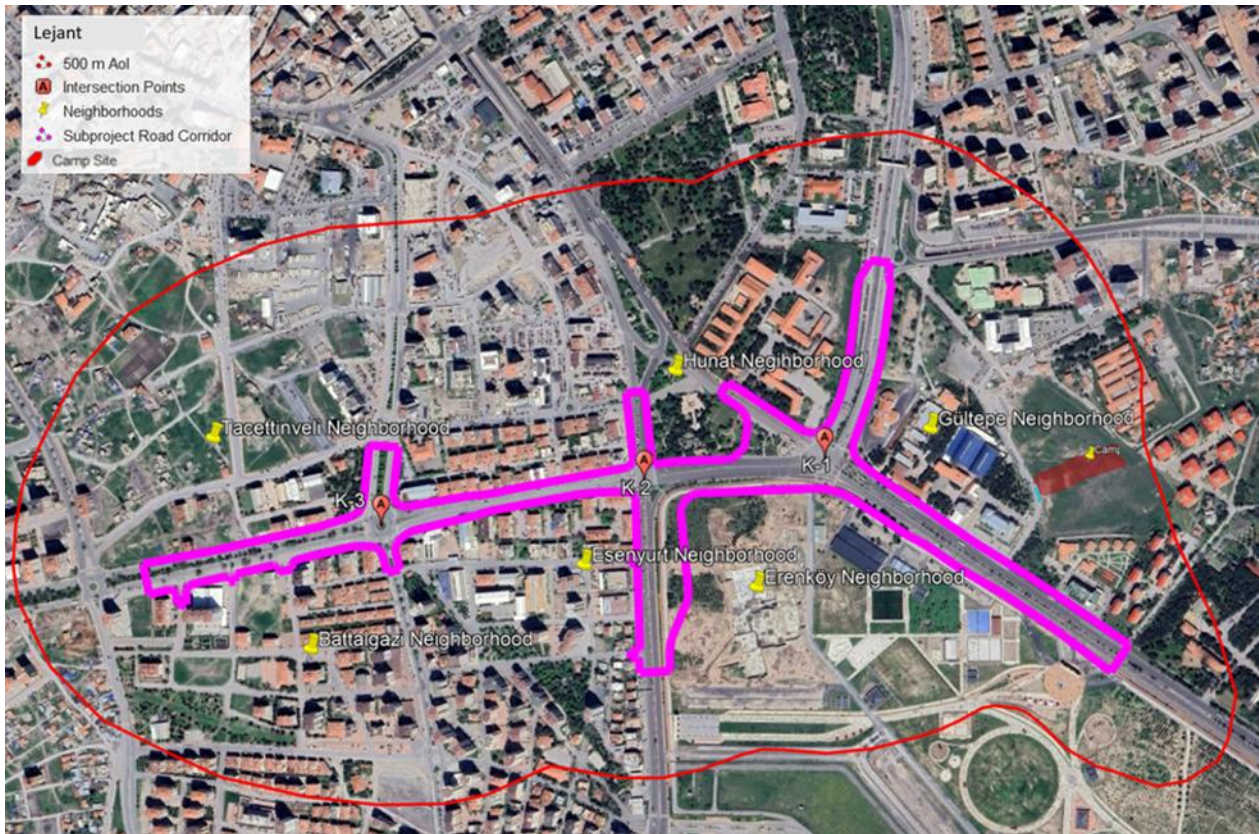


Figure 2-15 Subproject Road Corridor and 500 m Aol

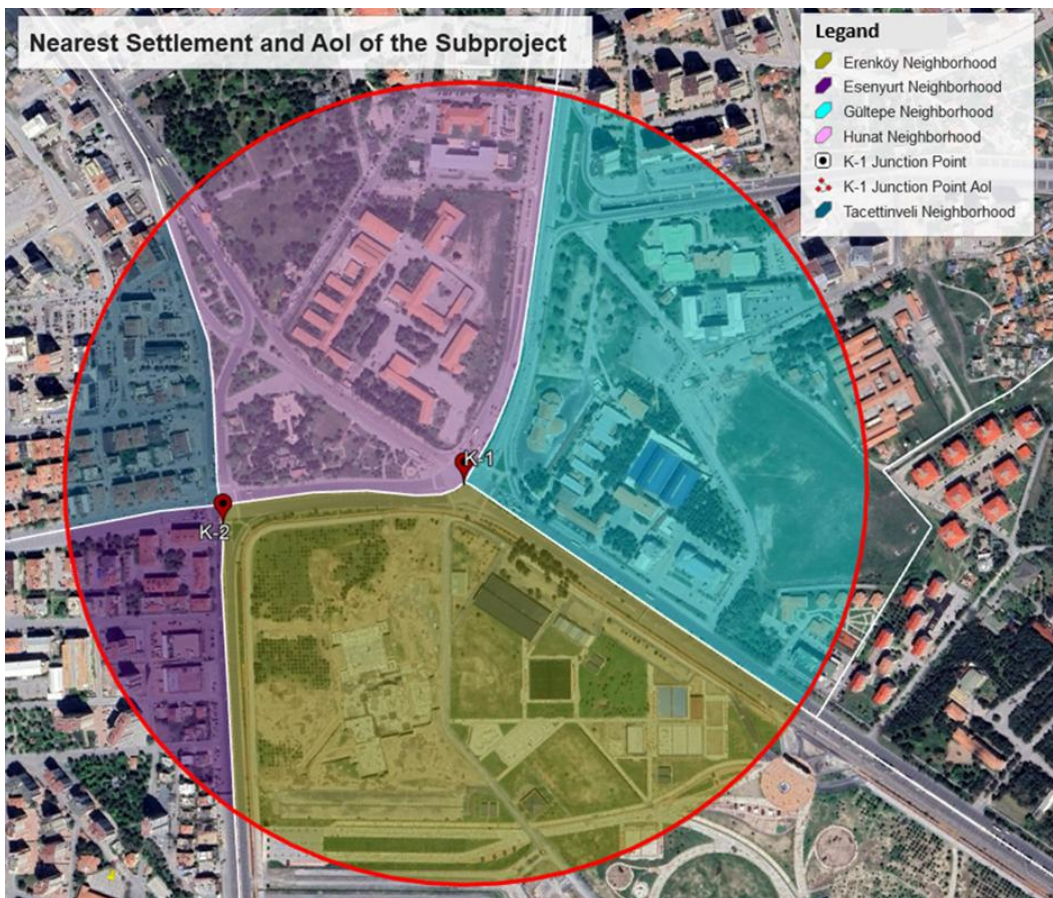


Figure 2-16 Aol of K-1 Junction Point

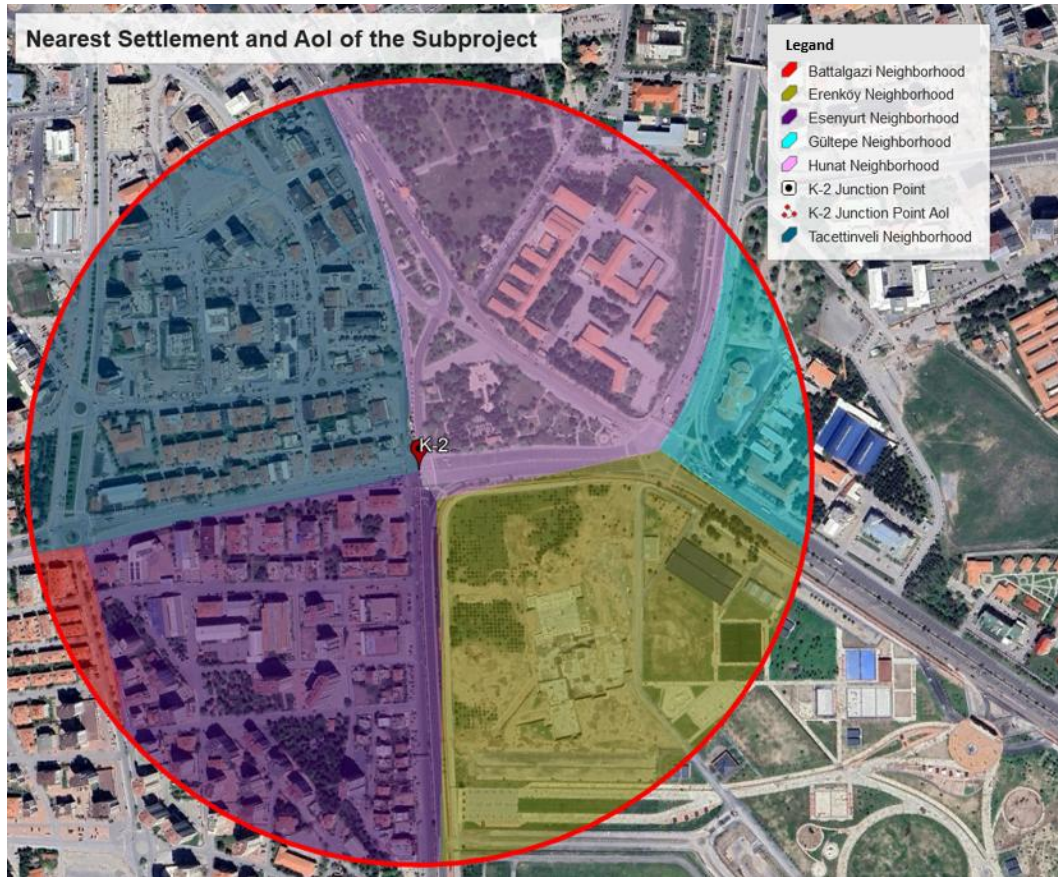


Figure 2-17 Aol of K-2 Junction Point

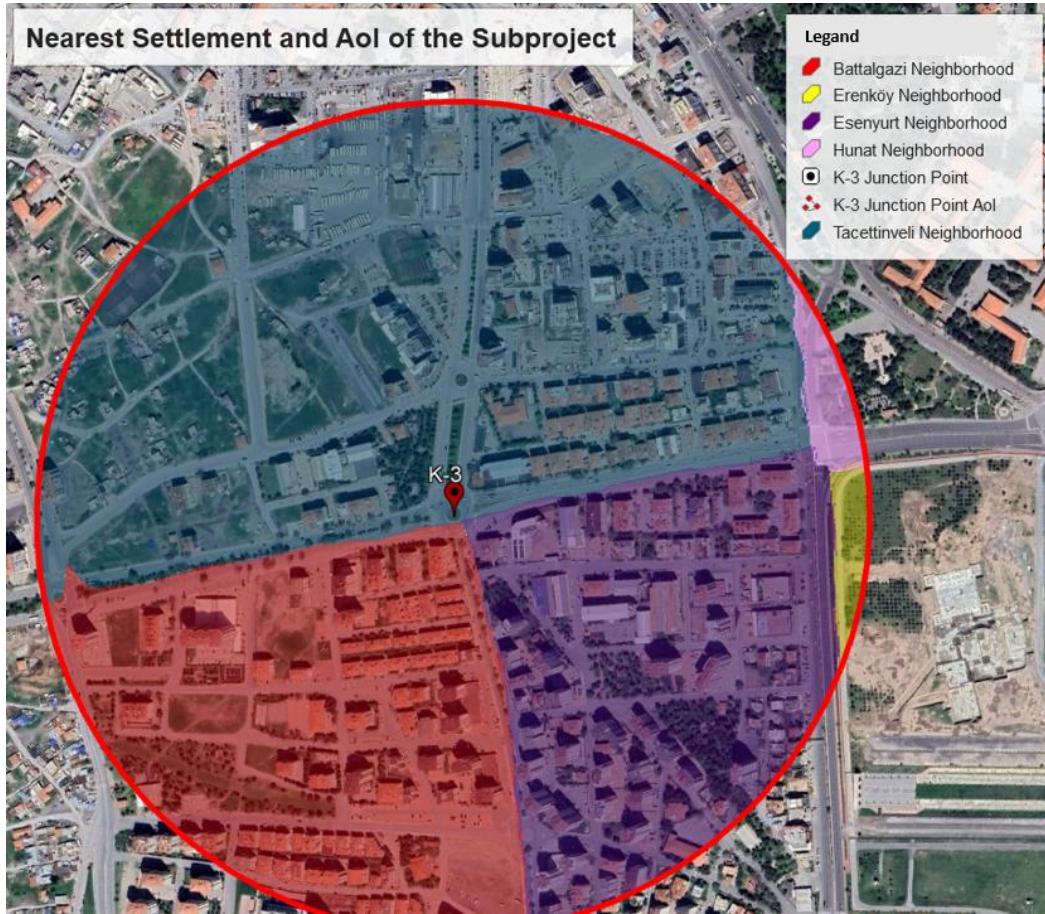


Figure 2-18 Aol of K-3 Junction Point



Figure 2-18 Map of Key Stakeholders and Institutions Around Intersection Areas-I



Figure 2-19 Map of Key Stakeholders and Institutions Around Intersection Areas-II



Figure 2-20 Aol of Dump Site Route

In addition, a 250-meter corridor has been delineated to assess the potential impacts of the quarry. Accordingly,

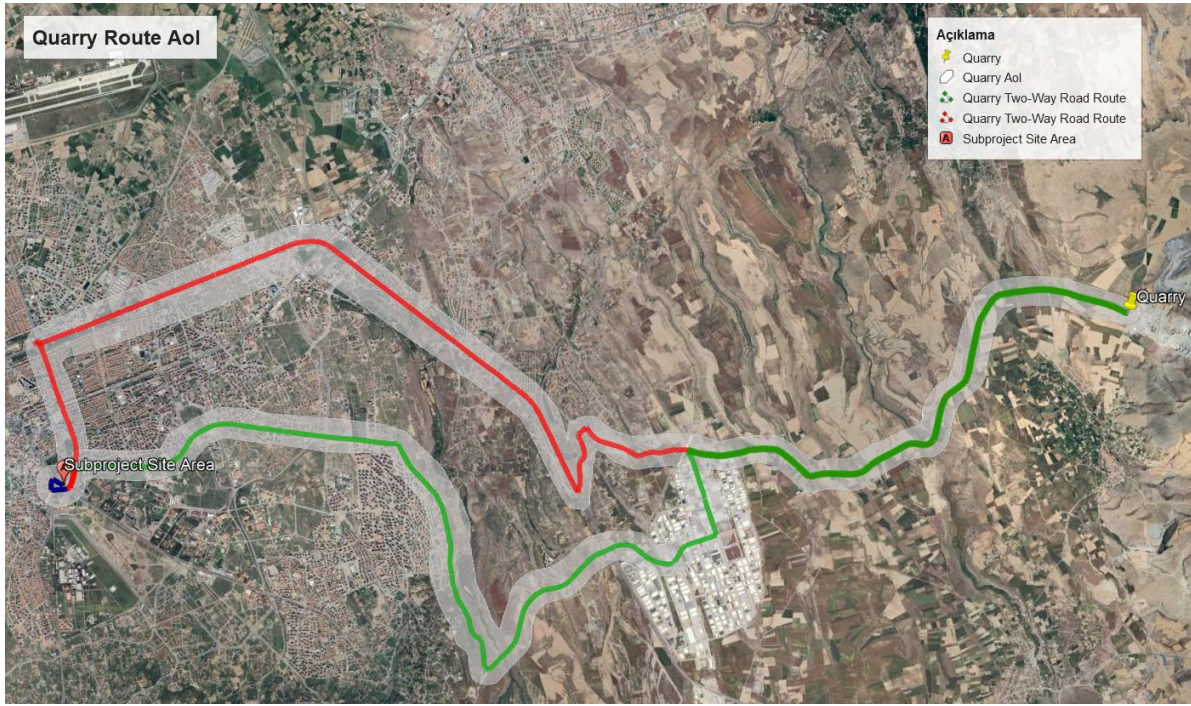


Figure 2-21 Aol of Quarry Route

2.7.Environmental and Social Baseline

Under this section, baseline studies conducted within the scope of the Subproject planned to be realized are included.

Within the scope of the Subproject, a site visit (to the Subproject area, excluding off-site facilities) was organized by the POSEİDON team (Fikret VAROL / Environmental Engineer, Hüseyin GÜNGÖR / Occupational Health and Safety Expert and Merve YILDIRIM / Sociologist) to Kayseri Province on 12.02.2025. As part of the desk studies, the documentation related to the Subproject was reviewed and evaluated. In addition, research on the demographic structure of the region was conducted.

During the site study, social surveys were conducted during stakeholder interviews. The surveys, which were developed to include stakeholders' expectations from the Subproject, their opinions on the Subproject and the demographic structure of the region, were used in the site study.

Scope

Details of the stakeholder interviews are included in the SEP prepared for the Subproject. A summary of the stakeholders consulted during the site visit is provided below for reference:

Stakeholders Consulted:

Local Institutions:

- Merkez Vocational and Technical Anatolian High School
- Millet Bahçesi
- Murat Kantarcı Science and Art Center
- Anadolu College Primary and Secondary School

Local Businesses:

- Mega Market
- Şahmar Rent A Car
- Şahmar Patisserie
- Duru Butcher
- Altuntaş Textile

Local Community:

- Private landowners of Parcels 664/176, 664/178, 664/179, and 664/181

- Mukhtar of Gültepe Neighborhood
- Mukhtar of Hunat Neighborhood
- Mukhtar of Tacettinveli Neighborhood
- Mukhtar of Battalgazi Neighborhood
- Mukhtar of Erenköy Neighborhood

On the other hand, the Subproject area was visited by the POSEIDON team.

The existing intersection points and road corridor, located within the Subproject area, was inspected during site visits conducted for the preparation of this ESMP, and the nearest sensitive receptors were identified accordingly (see Annex D).

2.7.1. Physical Environment

Under this heading, details of the Physical Environment of the Subproject area are given under the relevant sections. In case of insufficient information specific to the Subproject area, an evaluation was made on the basis of Kayseri Province.

2.7.1.1. Topography

Kayseri is located in a topographical basin bordered by high mountains and hills from the south and north. The fact that the province is surrounded by high mountains and hills greatly hinders air circulation. The mountains in the province area are in three rows. These mountains are separated from each other by depression basins and high plateaus. The most important and highest mountain of Kayseri province is Mount Erciyes, with a height of 3,916 meters. Mount Erciyes is an extinct cluster volcano with many secondary volcano hills on its chest and foothills. Other important mountains are Hınzır Mountain (2,500 m), Dumanlı Mountain (3,024 m), Bey Mountain (2,054 m), Binboğa Mountain (2,856 m), Tahtalı Mountain (2,100 m), Soğanlı Mountain (2,100 m), Rostan Mountain (2,100 m), Aladağ and Hodul Mountains, Aygörmez and Kızılviran Mountains, Bakır Mountain.

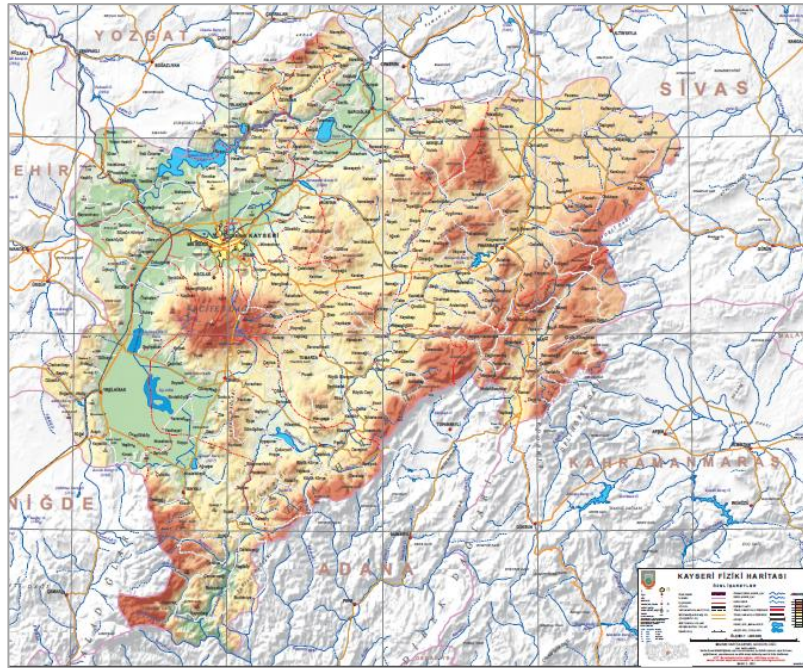


Figure 2-22 Kayseri Province Physical Map

Kayseri Plain, which covers the north of Erciyes Mountain, constitutes one of the largest plains of the province and the Upper Kızılırmak region, with a surface area of approximately 890 km². The length of Kayseri Plain reaches 40 kilometers from near Erkilet to Gömeç Village in the east. Develi Plain, with a surface area of approximately 1000 km², is one of the largest plains in the Upper Kızılırmak region, where Kayseri is located. The east-west length of the plain extending between Develi-Yeşilhisar districts reaches 30 kilometers.

2.7.1.2. Geology

The geological structure of Kayseri province; There are layers of various ages formed from the Paleozoic (First Period) period, large volcanic areas and various regions that have collapsed or risen with the movements of the earth's crust. The western part of the province is covered by thick volcanic layers, with Erciyes Mountain located centrally. This area is covered by various andesites, basalt lava flows from the Neogene period in some places, volcanic tuffs, agglomerates, and breccias. Quaternary alluviums are found in the plains formed by tectonic collapses in the near and far surroundings of Erciyes Mountain.

2.7.1.3. Tectonics and Seismicity

The Kartal Intersection Subproject is located in the city center of Kayseri, in a region characterized by undifferentiated Quaternary alluvial deposits. These geological formations significantly influence the geotechnical properties of the ground and are critical in determining the design parameters of the subproject. The subproject area lies within the influence zone of the tectonically active Ecemiş Fault Zone and is surrounded by several active faults, including the Erkilet, Gesi, and Erciyes Faults.

According to the Türkiye Earthquake Hazard Map published by AFAD in 2019, Kayseri and the subproject site are located in a moderate to high seismic hazard zone, with potential peak ground acceleration exceeding 0.2g. Liquefaction risk also exists in the alluvial plains, which may amplify seismic ground motion during an earthquake.

Scenario-based analyses prepared by AFAD using the AFAD-RED tool suggest that a magnitude 6.0 earthquake on the Erciyes Fault would cause very strong ground motion in the city center and lead to significant structural damage, particularly in the Melikgazi and Kocasinan districts. The estimated number of damaged and collapsed buildings per district in this scenario further highlights the vulnerability of the subproject area to seismic hazards.

In light of these geological and seismic conditions, structural design, site-specific hazard assessments, and disaster preparedness efforts must be addressed carefully, in alignment with the Kayseri Provincial Disaster Risk Reduction Plan (IRAP).

2.7.1.4. Soil and Land Composition

Within the scope of the CDRC Project, the Kartal Intersection and its surrounding road corridors are located within the Melikgazi district of Kayseri, and both the soil characteristics and land composition of the area must be taken into account for infrastructure design, environmental assessment, and long-term urban planning. Scientifically analyzed soil samples from the district show a sandy texture and slightly alkaline character, with a pH of 7.67, an electrical conductivity (EC) of 0.21 dS/m, 2.6% calcium carbonate (CaCO_3), and an organic matter content of 0.89%. Additionally, the levels of available phosphorus (3.11 mg/kg) and micronutrients such as Zn (0.27 mg/kg), Fe (1.49 mg/kg), Cu (0.64 mg/kg), and Mn (0.13 mg/kg) are low, indicating the necessity of soil enhancement and appropriate landscaping strategies during and after construction (Kılıç & Sönmez, 2025).

In terms of land composition, spatial analysis using remote sensing and GIS techniques reveals that between 2000 and 2020, Melikgazi experienced a 143% increase in residential land use—from 3,599 ha to 8,761 ha—primarily due to rapid urbanization and industrial development, including the growth of the Kayseri Organized Industrial Zone and the Mimar Sinan Industrial Zone. During the same period, agricultural land decreased by approximately 13%, with a portion transitioning into either built-up or green recreational areas. This transformation trend is expected to continue, as simulation models project further expansion of residential areas through 2030 and 2040 (Göncüler & Köylü, 2024). These findings underline the importance of integrating land use projections into the design of resilient transport infrastructure, especially in areas experiencing rapid land cover change Figure 2-23.

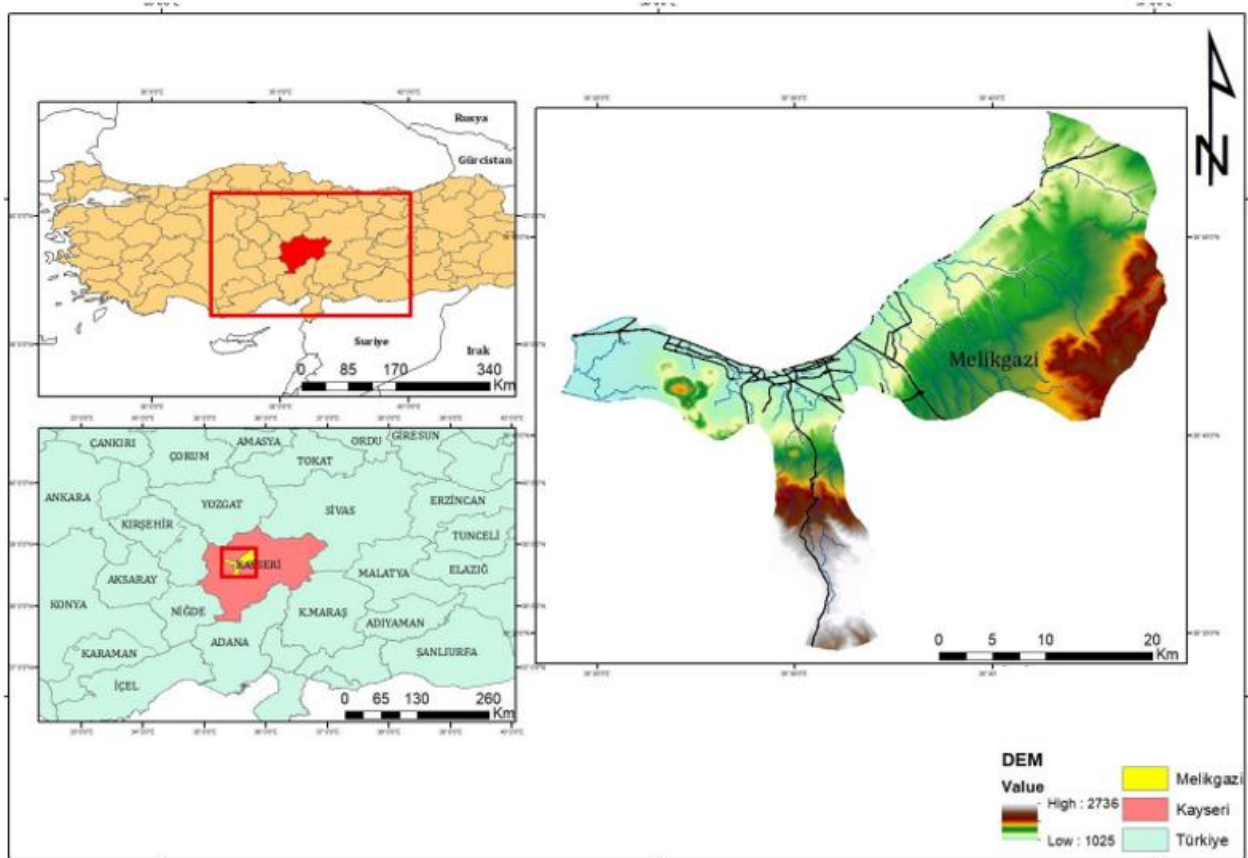


Figure 2-23 Melikgazi District Borders

References:

- Kılıç, F. N. & Sönmez, O. (2025). *The Effect of Different Sulphur Sources Applied at Various Rates on Soil pH*. Turkish Journal of Agriculture - Food Science and Technology, 13(1), 59–64. DOI: [10.24925/turjaf.v13i1.59-64.7256](https://doi.org/10.24925/turjaf.v13i1.59-64.7256)
- Göncüler, K. N. & Köylü, Ü. (2024). *Land Use and Land Cover Change Analysis and Future Simulation Model: The Case of Kayseri Melikgazi*. Erciyes University Journal of Institute of Science and Technology, 40(1), 108–122.

2.7.1.5. Meteorology and Climatic Characteristics

Kayseri Province has typical Central Anatolian terrestrial climate which is hot and dry in summer months and very cold and with precipitation in winter months. However, the provincial climate varies from place to place depending on altitude. Accordingly, while the climate in the province is softer in the regions remaining in the lower area, it becomes harsher as you move from the plateaus to the mountainous areas. According to Köppen and Geiger, this climate is classified as Csa. The mean temperature prevailing in the city of Kayseri is recorded as 10.5 °C, according to statistical data. Each year, there is an approximate 564 mm of precipitation that occurs.

The month with the least amount of precipitation is August exhibiting a mere 7 mm rainfall. Most precipitation falls in May, with an average of 87 mm. The month of August boasts the highest average temperature, with a recorded maximum of 23.0 °C. In January, the average temperature is -2.5 °C. It is the lowest average temperature of the whole year. There is a notable variation in precipitation levels between the driest and wettest months, amounting to 80 mm. The average temperatures vary during the year by 25.6 °C. Average Temperature and Precipitation Data shown below Table 2-4.

Table 2-4. Average Temperature and Precipitation Data

	1	2	3	4	5	6	7	8	9	10	11	12
Avg. Temp. (°C)	-2.5	-0.7	4.2	9.6	14.3	18.8	22.6	23	18.8	12.6	5.7	-0.1
Min. Temp. (°C)	-6.8	-5.4	-1.2	3.6	8.2	12.5	15.6	16.2	12.5	7.1	0.9	-4.3
Max. Temp. (°C)	2.1	4.3	9.7	15.3	19.9	24.6	29.1	29.7	25	18.5	11.2	5
Precipitation (mm)	54	48	69	80	87	51	10	7	21	40	44	53

	1	2	3	4	5	6	7	8	9	10	11	12
Humidity (%)	76%	73%	65%	59%	56%	48%	38%	37%	39%	52%	62%	71%
Days of Precipitation	7	7	9	10	11	7	2	1	3	5	5	7
Hours of sunlight (hrs)	5.8	6.6	7.7	9.2	10.6	11.8	12.2	11.8	10.4	8.4	7.1	6.1

2.7.1.6. Air Quality

The subproject area is located in a central and busy part of the city with high vehicle and pedestrian traffic. There are several sensitive receptors in the area that may be vulnerable to air quality impacts. These receptors are listed below:

- Mimar Sinan Vocational and Technical Anatolian High School (approximately 40 m away)
- Selçuklu Anatolian High School
- Merkez Vocational and Technical Anatolian High School
- Hüma Hospital (approximately 180 m away)
- Acıbadem Kayseri Hospital (approximately 400 m away)
- Recep Tayyip Erdoğan National Garden
- Kartal Martyrdom Monument
- Kayseri Provincial Directorate of National Education
- Kayseri Provincial Directorate of Family and Social Services
- Small-scale businesses operating around the K-3 intersection (e.g., butcher, patisserie, car rental, textile workshop)

There is an air quality monitoring station (“AQMS”) of Ministry of Environment, Urbanization and Climate Change (“MoEUCC”) in Kayseri Province namely Kayseri Traffic and it is approximately 1 km to project Area. The location of the monitoring station according to the Project Area is given in Figure 2-24.

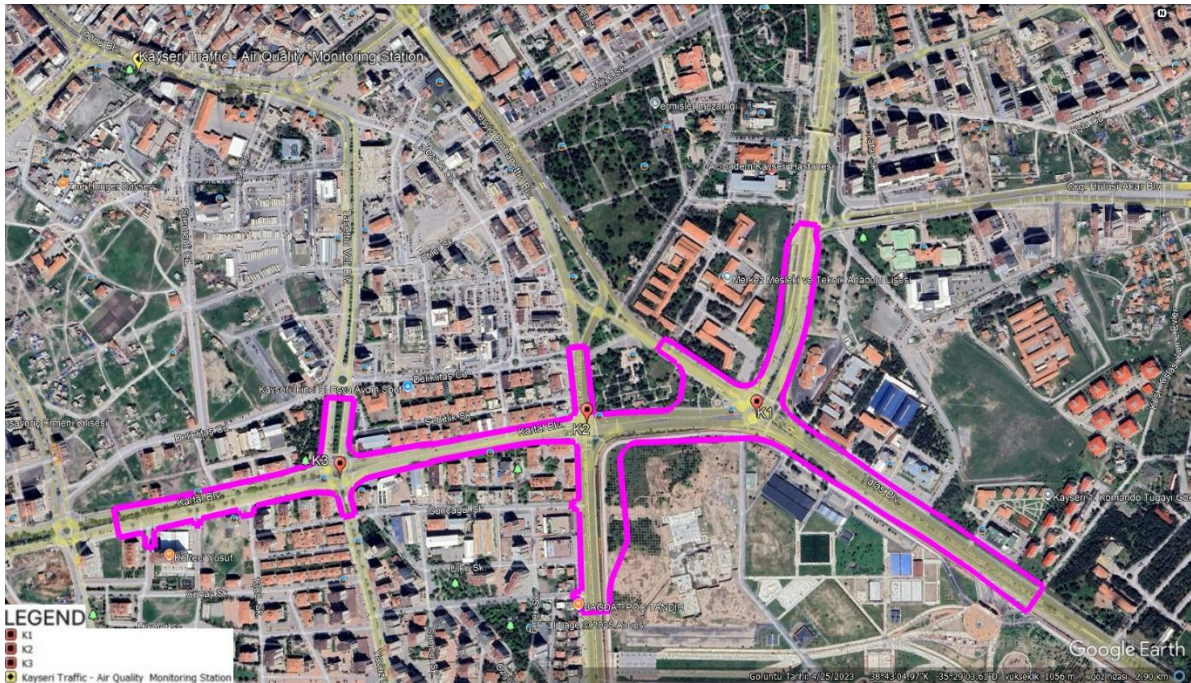


Figure 2-24 The location of AQMS of MoEUCC in the Vicinity of the Subproject Area

The average concentrations of Kayseri Traffic AQMS, which is the closest station to the Subproject area, in line with the measured parameters from March 2024 to March 2025 are summarized in Table 2-5. Accordingly, it can be said that some concentrations are above the IFC limit values. However, it is considered that since the AQMS is located in the city center, those values are above the limit values. Daily measurements are made in AQMS.

Table 2-5. Average Concentrations of Kayseri Traffic AQMS

Station	Parameters	Units	Min. Value (Daily)	Min. Value Date (Daily)	Max Value (Daily)	Max Value Date (Daily)	Avg. Value	IFC / WHO AQG Limit Values	Turkish Ambient Air Quality Limit Values (daily)
Kayseri - Trafik	PM10	µg/m3	11,7	5.05.2024	164,41	9.01.2025	53,51	45 (24-hour) 15 (Annual)	70
Kayseri - Trafik	PM2.5	µg/m3	-	-	-	-	-	15 (24-hour) 5 (Annual)	-
Kayseri - Trafik	CO	µg/m3	183,09	11.05.2024	2760,14	9.12.2024	817,98	10,000 µg/m ³ (8 hour) 4,000 µg/m ³ (24 Hour)	10.000
Kayseri - Trafik	NO2	µg/m3	29,24	11.05.2024	216,55	9.01.2025	87,58	200 (1 hour) 10 (Annual)	270
Kayseri - Trafik	NOX	µg/m3	52,98	25.12.2024	500,67	9.01.2025	178,15	-	120
Kayseri - Trafik	NO	µg/m3	10,94	11.05.2024	271,21	9.01.2025	68,27	-	-
Kayseri - Trafik	O3	µg/m3	4,19	2.12.2024	71,97	16.06.2024	25,06	100 (8 hour)	-

2.7.1.7. Noise

The Subproject area is located in a central urban zone characterized by heavy vehicular traffic, which is the primary source of environmental noise. The intersection where the construction will take place is surrounded by residential areas, educational institutions, and healthcare facilities, all of which are considered noise-sensitive receptors (NSRs).

High traffic volumes are observed throughout the day on the main roads surrounding the Subproject area. This condition contributes to elevated ambient noise levels, particularly during daytime hours. Although no on-site measurements have been conducted, the

current urban layout and traffic conditions suggest that existing noise levels are within moderate to high ranges typical for city centers.

Noise-Sensitive Receptors (NSRs):

A detailed assessment of sensitive and community-use receptors within the Area of Influence (AoI) of the Subproject has been carried out. Based on satellite imagery and field observations, the following key receptors have been identified:

- **Educational institutions:** Mimar Sinan Vocational and Technical Anatolian High School, Selçuklu Anatolian High School, and Merkez Vocational and Technical Anatolian High School are located within a 100–250 meter radius of the planned construction site. Among them, Mimar Sinan High School is situated closest to the active construction zone, at approximately 40 meters.
- **Healthcare facilities:** Hüma Hospital and Acıbadem Kayseri Hospital are located at distances of approximately 180 meters and 400 meters from the project site, respectively.

2.7.1.8. Water Resources

The surface waters of the province; primarily Kızılırmak, Zamantı River, Sarımsaklı Stream, Sarız Stream in rivers and streams; and the dams are Sarımsaklı Dam Lake, Ağcaşar Dam, Akkoy Dam, Kovalı Dam, Bayramhacı Dam. Additionally, there are smaller surface water bodies such as Tekir Pond, İncesu Sediment Trap, and Zincidere Pond. Approximately 46% of the surface water of province is natural lakes and 48% is dam reservoirs. According to the IRAP Report 2013 ,the province's drinking and utility water is provided by groundwater; 75% of irrigation water is provided by groundwater and 25% by dams, lakes and ponds.⁶ The distribution of surface water in Kayseri is given below;

Table 2-6. Surface Water Distribution of Kayseri Province (Hectares)

Surface Water Type	Area (ha)
Natural Lakes	11,730
Reservoirs//Dams	12,116
Pond Reservoirs	177
River Surfaces	1,404
Total	25,427

The plains of the province are the Kayseri Plain, Develi Plain, and around Tuzla Lake, the Palas, Sarıoğlu, Akdölen, Zamantı and Mandal Plains.

The 500-meter primary Area of Influence (AoI) surrounding the K1, K2, and K3 intersection points of the subproject has been defined and detailed under the Section 2.6. Subproject Impact Area. The maps prepared for these three intersection points clearly demonstrate that the entire subproject site is located within a densely urbanized environment. Based on field observations and satellite imagery analyses, no natural or artificial surface water bodies (e.g., rivers, streams, ponds, dams, or wetlands) are present within any of these AoIs.

The surface waters of the province; primarily Kızılırmak, Zamantı River, Sarımsaklı Stream, Sarız Stream in rivers and streams; and the dams are Sarımsaklı Dam Lake, Ağcaşar Dam, Akkoy Dam, Kovalı Dam, Bayramhacı Dam. Additionally, there are smaller surface water bodies such as Tekir Pond, İncesu Sediment Trap, and Zincidere Pond. Approximately 46% of the surface water of province of the province is natural lakes and 48% is dam reservoirs. The province's drinking and utility water is provided by groundwater; 75% of irrigation water is provided by groundwater and 25% by dams, lakes and ponds.

The subproject impact area consists of:

- Built-up residential and commercial zones,
- Urban green areas (established for landscaping purposes),
- Existing road infrastructure and junctions,

and it does not have any direct or indirect interaction with stream or surface water systems.

⁶ Access Address: https://kayseri.afad.gov.tr/kurumlar/kayseri.afad/Egitim/Kayseri_IRAP_Baski.pdf

Major surface water bodies in Kayseri Province (e.g., Kızılırmak River, Zamantı River, Sarımsaklı Stream, Tekir Pond) have been reviewed, and none of them are located in proximity to the Subproject's AoI. The nearest surface water body is the Zamantı River, which lies approximately 41 kilometers east of the Subproject area (as the crow flies), and it is not expected to be directly affected by the subproject.

Accordingly:

- The Subproject is not located within or adjacent to any water protection area, floodplain, natural pond, or wetland.
- Construction activities will not involve any direct intervention in aquatic habitats.
- Potential effects related to stormwater and surface runoff are expected to be managed through the existing urban drainage infrastructure.

2.7.1.9. Natural Hazards (such as flooding, landslides, fire, etc.)

Although the seismic risks are addressed in detail under Section 2.7.1.3, other natural hazards have also been assessed based on the Kayseri Provincial Disaster Risk Reduction Plan (IRAP, 2021). The Subproject area is not located in zones exposed to avalanche, rockfall, or flood risks.

Avalanche: According to the IRAP, avalanche events are localized in mountainous zones such as Erciyes and Aladağlar. There is no recorded avalanche event or potential source zone in the vicinity of the Subproject area⁷

Rockfall: While certain neighborhoods in Talas and Melikgazi districts are classified as rockfall-prone, the Kartal Intersection and its surroundings are located in a flat urban zone with no recorded incidents or source areas. Urban geological risk maps do not indicate any critical slope or rockfall susceptibility for the subproject site.

Flooding: The 500-Year Flood Risk Map of Kayseri, as well as district-level flood prevention actions under IRAP, do not include the Kartal Intersection among the high-risk zones. The subproject area lies outside the listed flood corridors and no drainage-related hazard has been identified.

2.7.2. Biodiversity

This section has been developed in order to examine the status of the ecosystem and biodiversity in the Subproject area and its immediate surroundings, to reveal the flora and fauna inventory, to identify endemic, rare or endangered taxa, to determine the endangerment categories of the identified taxa according to WB ESS-6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (WB ESS-6). WB ESS-6 defines natural habitat and critical habitat as follows: Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition. On the other hand, critical habitat is defined as areas with high biodiversity importance or value, including:

- (a) Habitat of significant importance to Critically Endangered or Endangered species, as listed in the IUCN Red List of threatened species or equivalent national approaches;
- (b) Habitat of significant importance to endemic or restricted-range species;
- (c) Habitat supporting globally or nationally significant concentrations of migratory or congregatory species;
- (d) Highly threatened or unique ecosystems; and
- (e) Ecological functions or characteristics that are needed to maintain the viability of the biodiversity values described above in (a) to (d). WB ESS-6 aims to:
 - To protect and conserve biodiversity and habitats,
 - To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity,
 - To promote the sustainable management of living natural resources and,
 - To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.

⁷ AFAD. (2021). *Kayseri İl Afet Risk Azaltma Planı (İRAP)*. Kayseri Valiliği İl Afet ve Acil Durum Müdürlüğü.

The biodiversity and ecosystem assessment for the Subproject has been conducted within the predefined Area of Influence (AoI), established prior to site-specific surveys. According to the WB Environmental and Social Standards, "where the project involves specifically identified physical elements, matters and facilities that are likely to create impacts, environmental and social risks and impacts shall be identified in the context of the project's Area of Influence (AoI)." Accordingly, the assessment was not limited to the project footprint but also included adjacent areas that could be environmentally affected. The term "Subproject area and its immediate surroundings" refers to the primary AoI, defined as a 500-meter buffer zone surrounding the project area, based on the potential for concentrated environmental effects such as dust, noise, habitat disturbance, and traffic impacts.

Based on site observations conducted by qualified biodiversity specialists and desktop review of national biodiversity databases and IUCN resources, the AoI includes fragmented natural grasslands and pastures, urbanized areas, and modified agricultural zones. The area displays a mosaic of disturbed habitats and is considered largely altered in terms of ecological integrity. Under WB ESS-6, the following assessments apply to components (a) through (e):

- (a) No habitats of significant importance to Critically Endangered or Endangered species (CR/EN) were identified within the AoI. This finding is supported by literature sources (IUCN Red List, national species databases) and field verification.
- (b) No habitats of known importance to endemic or restricted-range species were observed. Flora within the AoI consists mostly of widespread, non-endemic, urban-tolerant vegetation.
- (c) The AoI does not support migratory corridors or congregation sites for migratory or aggregating species, as confirmed through expert site observations and absence of recorded routes or stopover zones.
- (d) The AoI does not include highly threatened or unique ecosystems; habitat types are common to peri-urban and modified rural zones.
- (e) No ecological functions were identified within the AoI that are critical to maintaining the viability of the biodiversity values described in items (a) to (d). This evaluation is supported by field surveys and secondary data sources.

In order to ensure compliance with WB ESS-6 requirements and to demonstrate how biodiversity and habitat protection principles will be implemented in practice:

- Construction activities will be carried out, as much as possible, in locations away from sensitive or natural areas to minimize direct habitat destruction.
- Vegetation clearance and excavation works will be conducted only when strictly necessary and will be preceded by expert-led assessments of the site's flora and fauna.
- Dust, noise, and traffic-related impacts will be mitigated through the application of dust suppression (e.g., watering), noise barriers, and traffic management measures.
- Working hours will be planned in alignment with local wildlife activity patterns, and construction will be restricted during critical breeding and nesting seasons.
- Where the use of natural resources (e.g., water, vegetation) is required, sustainability principles will be followed and coordination with relevant local authorities will be ensured.

In conclusion, while natural habitat characteristics are present in some sections of the AoI, no critical habitat criteria are met. All conclusions are based on a combination of literature sources, public biodiversity datasets, IUCN assessments, and direct expert field observations.

According to the available data, flora and fauna species within the AoI are predominantly widespread and well-adapted to regional ecosystems. Vegetation primarily consists of urban-tolerant, non-endemic, common species. Wildlife presence is limited, and no nesting or breeding sites were recorded within the project area. Furthermore, no endemic, rare, or IUCN Red List species classified as Critically Endangered (CR) or Endangered (EN) were identified as having habitat within the project site or AoI.

During the field study carried out by the POSEIDON team on February 12, 2025 within the scope of the Subproject, it was determined that the works within the scope of the Subproject will be carried out on the full road corridor (including connection roads) and junction. This area is center of Melikgazi district and is an area of intense human activity.

The subproject area is located in the district center and lies entirely within an urban fabric, characterized by intense human activity.

As of the current situation, the project area and its connection roads are:

- Surrounded by built-up residential and commercial areas,
- Contain inner-city green areas arranged for landscaping purposes,
- Not in direct or indirect interaction with natural habitats or protected areas.

Accordingly, no surface water bodies, natural grasslands or pastures, forested areas, wetlands, critical habitats, or natural ecosystems that could host IUCN Red List species are present within the Project's Area of Influence (AoI).

Nevertheless, approximately 460 coniferous trees (such as spruce and black pine) located in the project area will be translocated. This operation will be carried out using specialized technical equipment to avoid damage to the root systems. Considering that these trees may serve as nesting sites for wildlife, particularly birds, the translocation will be scheduled outside of the breeding/nesting season (March–July), and the area will be inspected by a specialist (Veterinarian) within the municipality beforehand.

Off-site facilities (i.e., quarry, dump site), although located outside the main project footprint, have also been assessed in terms of biodiversity.

The quarry is located approximately 17 km east of the project site, in a rural area. This site has previously been actively operated and has lost its natural characteristics. It is largely surrounded by agricultural fields and open steppe-like areas. Based on field investigations and satellite image assessments, this site does not qualify as a natural or critical habitat and does not offer suitable conditions for endemic or sensitive species. No significant biodiversity threat is anticipated from activities at the quarry. However, secondary impacts such as dust and noise will be managed through mitigation measures (e.g., watering, enclosed transport, limited working hours) as described in the relevant sections.

The dump site is located approximately 6.5 km west of the subproject area, in a semi-rural topography. It has previously been stabilized and used for uncontrolled dumping activities and does not contain natural vegetation or habitat connectivity. Residential areas and roads surround the site. Therefore, no direct floristic or faunistic degradation is expected at this site. However, potential spillage during transport and off-site spread of dumped material will be mitigated through restricted dumping zones and the use of physical barriers.

In general, the identified additional areas are not ecologically sensitive and are characterized by degraded or low ecological value. No critical habitat, priority conservation species population, or ecosystem service risk has been identified in these areas.

The construction activities planned under the Subproject will take place entirely within the boundaries of existing road infrastructure and junctions, all of which are situated in a densely urbanized environment. There are no natural vegetation patches, agricultural plantations, dedicated landscaping areas, or public green spaces within the project site or its Area of Influence (AoI). Therefore, there are no plants, cultivated areas, or vegetative cover that will require translocation as part of the Subproject.

Based on field surveys and satellite imagery analysis, the only biotic element subject to potential impact consists of approximately 460 coniferous trees (including species such as *Pinus nigra*, *Picea* sp.) planted along medians and roadsides for urban landscaping purposes. These trees are not part of a natural forest ecosystem but are classified as artificial vegetation established through urban greening programs.

The trees are not planned to be cut, but rather carefully uprooted and relocated using appropriate technical equipment and procedures. The translocation process will include:

- Uprooting the trees with minimal disturbance to the root system,
- Maintaining the root soil during transfer to designated planting areas,
- Avoiding translocation during the bird nesting and breeding season (March–July),
- Having the site inspected by a qualified specialist (Veterinarian) within the municipality prior to any operation to check for active bird nests.

In conclusion, aside from the planned tree translocation, no plant species, landscaped areas, plantations, or ecosystem components will be affected by the Subproject. Additionally, the project site does not contain any natural or critical habitats as defined under WB ESS6..

The Sultan Sazlığı National Park and Ramsar Site is located 15 km of the Subproject beginning/end , which covers 24,523 hectares, and the Aladağlar National Park, which covers 54,524 hectares in Kayseri. Sultan Sazlığı National Park hosts a total of 428 natural plant species, including 48 endemic species, and provides feeding and breeding grounds for 301 bird species. The national park is important because it is located on the migratory route used by migratory birds migrating between Africa, Europe and Asia every year.

Additionally, the Hürmetçi Sazlığı (Karasaz) wetland area, was designated as a "Wetland of International Importance" in 2004 due to its meeting the Ramsar criteria. This reed bed contains endangered species according to the "Priority Birds for Conservation on a European Scale" classification by BirdLife International and the IUCN "Red Data Book".

Table 2-7 Showing the Distance of the Subproject Area to Key Legally Protected Areas (LPA) and Key Biodiversity Areas (KBA)

Name	Protection Status	Distance to Project (km)	Direction
Hürmetçi Sazlığı ⁸	National Wetland	16.7	South-West
Sultan Sazlığı National Park ⁹	National Park / Ramsar Site	58.8	South
Tuzla Palas Wetland	National Wetland	53.3	North-East
Tersakan Lake	Key Biodiversity Area (KBA)	34.4	North-East



Figure 2-25 Map Showing the Distance of the Subproject Area to Key Legally Protected Areas (LPA) and Key Biodiversity Areas (KBA)

2.7.2.1. Legally Protected and Internationally Recognized Areas

The Subproject Area of Influence (AoI) is not located within or near any nationally or internationally protected area such as National Parks, Nature Conservation Areas, Ramsar Sites, Natura 2000 Sites, or Key Biodiversity Areas (KBAs). No overlap exists with any areas designated under national legislation or international conventions. Therefore, the Project does not pose a direct or indirect risk to any legally protected or internationally recognized ecological sites.

2.7.2.2. Habitats

Based on the field survey conducted by a qualified biodiversity expert and supporting satellite imagery, the AoI is entirely within an urbanized zone and consists predominantly of anthropogenic (human-modified) land use. The habitats within the project area are classified as “Modified Habitats” under ESS6 definitions. There is no presence of natural or critical habitats. Vegetation in the area consists mainly of ruderal and disturbance-tolerant species with no ecological connectivity or habitat heterogeneity.

The Area of Influence (AoI) of the Subproject has been determined to cover areas with high potential to be environmentally affected by project activities. Based on field observations by a qualified biodiversity expert and desktop analyses based on national biodiversity databases and IUCN global species assessments, it was determined that there are fragmented natural habitats and areas subject to intense human impact within the AoI.

⁸ Hürmetçi Marshes was designated as a “Wetland of National Importance” in 2004. It hosts species listed in the IUCN Red List and BirdLife International’s “Birds of Conservation Concern in Europe”.

Source: Ministry of Agriculture and Forestry, General Directorate of Nature Conservation and National Parks.

⁹ Sultan Marshes National Park is a Ramsar Site known for its high avian biodiversity and its unique combination of freshwater and brackish water ecosystems.

Source: Ramsar.org, kbaturkiye.org

Although there are remnants of natural vegetation in the area, in general, the ecological integrity of the area has been largely degraded and the landscape is fragmented at the landscape level. Factors such as the fact that the Subproject area is located in an urban settlement area within the city, habitat transformation and edge effects have significantly reduced the ecological functionality of existing habitats. Therefore, the area cannot be considered ecologically holistic and does not have the capacity to support population levels suitable for sensitive or habitat species.

As a result of the field surveys and literature reviews conducted in this context, it was determined that the flora and fauna species in the impact area are mostly common, generalist and tolerant to human impact. Habitat conditions with degraded ecological functionality do not allow the presence of endemic, rare or threatened species, indicating that there are no sensitive species or biologically important populations that require protection measures in the area. Likewise, no invasive plant or animal species were found during the assessments..

2.7.2.3. Species

2.7.2.3.1. Flora

As a result of field observations and analyses based on satellite images, it has been determined that the area has been subjected to human impact for a long time and therefore has lost its natural structure and gained a largely degraded character. The vegetation consists of wide-spreading, annual herbaceous species, which are typical of areas close to the city center and under the influence of construction. These species are mostly ruderal (adapted to degraded environments) and tolerant to human activities. The Project area is not ecologically significant in terms of habitat continuity or floristic diversity.

During field observations, 460 coniferous trees (species such as spruce, larch) were identified within the Project area. These trees were planted in the past for landscaping purposes and are not part of the natural forest. These trees will need to be felled as part of the planned construction activities. However, felling will take place outside the breeding period, a preliminary assessment will be made in terms of habitat features such as bird nests and alternative placement plans will be considered, if any. These practices will be carried out in line with good international practices (GIIP) outlined under ESS6.

Overall, the project area is not home to floristically sensitive species, does not qualify as critical habitat and there is no need for any species translocation or special protection measures.

2.7.2.3.2. Fauna

No significant faunal presence or nesting activity was recorded during field surveys. Due to habitat fragmentation, urban pressure, and limited ecological corridors, the site does not offer suitable conditions for sensitive or habitat-specialist species. Observations are consistent with typical urban wildlife (e.g., sparrows, pigeons, and small mammals), and no protected or IUCN-listed animal species were detected.

2.7.2.4. Invasive Alien Species

According to the database of the Ministry of Agriculture and Forestry, *Carassius gibelio* has been recorded approximately 3 km away and *Carassius auratus* approximately 2.5 km away from the Subproject area. Both species are considered Invasive Alien Species. However, as these occurrences are located at a considerable distance from the project footprint and there is no hydrological connection or habitat continuity with the Subproject construction corridor, no interaction or impact is expected between the project activities and these species.

2.7.2.5. Ecosystem Services

The World Bank's Environmental and Social Standard 1 (ESS1) emphasizes the importance of analyzing biodiversity and ecosystem services within the scope of environmental and social risk assessments. Accordingly, during the biodiversity assessment conducted for the subproject, ecosystem components, species presence, and potentially affected ecosystem services within the defined Area of Influence (AoI) were examined .

As part of the assessment, the ecosystem services within the AoI were analyzed based on the classification outlined in the World Bank's Environmental and Social Standard 6 (ESS6), which includes provisioning, regulating, cultural, and supporting services. Based on field surveys conducted by qualified specialists, along with reviews of national biodiversity data sources and desktop analysis using IUCN databases, it was determined that the AoI largely comprises fragmented habitats degraded due to urban use and agricultural interventions.

No provisioning services—such as natural resources directly used by local communities (e.g., firewood, drinking water, fisheries)—were identified within the area. With regard to regulating services, no natural systems were observed that could provide functions

such as flood control, natural water filtration, or air quality regulation. The area's topographic and hydrological characteristics, along with the current land use pattern, are not conducive to the active delivery of such services. For cultural services, no evidence was found suggesting that the area is used for spiritual, recreational, or touristic purposes. Lastly, with regard to supporting services, no evidence was found of pollination activity, breeding/nesting sites associated with natural habitats, or functional ecological processes significant in terms of species diversity, as supported by field data.

In conclusion, no ecosystem services defined under the ESS6 framework that may be directly affected by the subproject were identified within the Area of Influence.

2.7.3. Socio-Economic Environment

The socio-economic baseline of the Subproject area has been identified through stakeholder interviews, site observations, official demographic statistics, and land use analysis .

The Subproject is located in a mixed-use urban setting where residential neighborhoods, public institutions, and commercial establishments coexist.

The primary Area of Influence (AoI) is defined as a 500-meter buffer zone surrounding the core construction works of the Kartal Intersection and its connecting roads. Within this AoI, the directly affected neighborhoods are Erenköy, Esenyurt, Gültepe, Hunat, Battalgazi, and Tacettinveli. In addition, multiple schools, businesses, and privately owned properties are situated along the construction corridor.

As outlined in the Stakeholder Engagement Plan (SEP), the following institutions, commercial enterprises, and landowners are located within the AoI and have been identified as potential sensitive receptors:

Local Institutions: Merkez Vocational and Technical Anatolian High School, Millet Bahçesi (Urban Park), Murat Kantarcı Science and Art Center, Anadolu College Primary and Secondary School

Local Businesses: Mega Market, Şahmar Rent A Car, Şahmar Patisserie, Duru Butcher, Altuntaş Textile

Local Community Stakeholders: Mukhtars of the six affected neighborhoods and private landowners of parcels 664/176, 664/178, 664/179, 664/181

These stakeholders are anticipated to be exposed to varying levels of impact during construction, such as dust, noise, vibration, and access restrictions. Site-specific mitigation measures have been developed accordingly and are detailed in Section 4 of this ESMP.

The secondary AoI includes a 250-meter corridor along the dump site and quarry access routes, covering several additional neighborhoods in Melikgazi, Kocasinan, and Talas districts. Although these areas will not be physically altered by construction, temporary and indirect effects such as increased traffic, noise, and emissions may occur(see SEP for details).

Employment in the affected neighborhoods primarily involves wage labor in the industrial and service sectors, with additional small-scale commercial activity. Some neighborhoods also include vulnerable groups such as elderly individuals, low-income households, and migrants, who may face challenges in accessing project information or grievance mechanisms.

All socio-economic risks, anticipated impacts, and related mitigation measures are detailed in the Impact Assessment Matrix provided in Section 4, and stakeholder-specific engagement actions are outlined in the SEP.

2.7.3.1. Demography and Population

As stated in Section 2.6, the AoI of the Subproject has been determined . The primary impact area includes 6 neighborhoods namely Erenköy, Esenyurt, Gültepe, Hunat, Battalgazi and Tacettinveli. In addition the secondary impact area covers neighborhoods located along the dump site and quarry access routes, which are potentially exposed to indirect and cumulative impacts. These include:

In Melikgazi District: Fatih, Gökkent, Şirintepe, Mimarşinan, Tavlusun, Germir, Kılıçaslan, Köşk, Yıldırım Beyazıt, Geşi Kayabağ, Gürpınar Yeşil, Geşi Güzelköy, Büyükbürüngüz, Gülük, Aydınlıkevler, Hürriyet, Osman Kavuncu, Yeniköy, Kazımkarabekir, Sakarya, and Esentepe.

In Talas District: Mevlana, Kuruköprü, Reşadiye, Yukarı, and Tablakaya.

In Kocasinan District: Serçeönü, Yakut, Argıncık, Yıldızevler, Uğurevler, Erciyesevler, Fevzi Çakmak, Yeni, and Yenidoğan.

The total population of these neighborhoods is given in the Table 2-8 and Table 2-9.

Table 2-8. Population of Neighborhoods of Primary Impact Area*

Districts	Neighborhoods	Female	Male	Total
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Melikgazi	Battalgazi	10,760	10,676	21,436
	Erenköy	7,136	5,152	12,288
	Esenyurt	10,921	10,528	21,449
	Gültepe	5,004	5,906	10,910
	Hunat	1,578	1,624	3,202
	Tacettinveli	3,184	2,770	5,954

* TurkStat 2024 data

Table 2-9. Population of Neighborhoods of Secondary Impact Area*

Districts	Neighborhoods	Female	Male	Total
Melikgazi	Fatih	2,325	2,311	4,636
	Gökkent	3,454	3,321	6,775
	Şirintepe	10,527	10,349	20,876
	Mimarsinan	1,817	1,885	3,702
	Tavlusun	2,702	3,438	6,140
	Germir	5,483	5,498	10,981
	Kılıçaslan	4,370	3,994	8,364
	Köşk	11,007	12,319	23,326
	Yıldırım Beyazıt	13,154	12,387	25,541
	Gesi Kayabağ	225	247	472
	Gürpınar Yeşil	485	457	942
	Gesi Güzelköy	124	125	249
	Büyükbürlüngüz	253	263	516
	Gülük	3,995	3,971	7,966
	Aydınlıkevler	4,959	4,756	9,715
	Hürriyet	7,157	7,016	14,173
	Osman Kavuncu	4,747	4,531	9,278
	Yeniköy	8,783	8,664	17,447
	Kazımkarabekir	6,235	6,323	12,558
	Sakarya	4,774	4,730	9,504
	Esentepe	9,268	9,139	18,407
Talas	Mevlana	47,820	45,273	93,093
	Kuruköprü	827	788	1,615
	Reşadiye	742	764	1,506
	Yukarı	527	518	1,045
	Tablakaya	1,324	1,366	2,690
K o c	Yakut	7,454	7,269	14,723

	Argıncık	4,507	4,554	9,061
	Yıldızevler	2,228	3,218	5,446
	Uğurevler	6,337	6,134	12,471
	Erciyesevler	8,062	7,213	15,275
	Fevzi Çakmak	8,640	8,123	16,763
	Yeni	6,709	6,665	13,374
	Yenidoğan	5,660	5,797	11,457
	Serçeönü	2,0129	2,015	4,044

* TurkStat 2024 data

2.7.3.2. Land Ownership Status and Land Use by Affected People

Public Land Ownership

All publicly owned parcels within the subproject area—belonging to Kayseri Metropolitan Municipality, Melikgazi Municipality, and the State Treasury—have been dedicated for road use in accordance with relevant laws and regulations as follows:

- Parcels owned by the State Treasury have been dedicated for public use, including roads, parks, and green areas, pursuant to Article 11 of the Zoning Law No. 3194, which allows unconditional and cost-free transfer of State Treasury land for such public purposes.
- The parcel owned by Melikgazi Municipality was subdivided in accordance with Articles 15 and 16 of Zoning Law No. 3194, and the portion designated as a road in the project and zoning plan was formally dedicated for public use. The parcel located within the designated project area was originally registered under parcel number 664/9. Following the subdivision process, the parcel was divided, and the section falling within the subproject area was allocated for road use. As a result of this road dedication process, the subdivided portion no longer has a separate block and parcel number in the land registry.
- Parcels owned by Kayseri Metropolitan Municipality have been dedicated for road use according to Article 999 of the Turkish Civil Code, which governs the renunciation of land for public road use.

These road dedication procedures were concluded prior to the start of construction. All relevant approvals and land registry records are provided in Annex C.

Parcels subject to road dedication include:

- Kayseri Metropolitan Municipality: 1/108, 1/124, 1/125, 533/7
- State Treasury: 418/27, 418/28, 418/30, 1200/26, 1200/28, 1200/30, 1200/32, 14093/1, 13835/5, 17265/1, 13835/7, 439/19
- Melikgazi Municipality: N/A

Private Land Acquisition

The Subproject is primarily located within the existing road corridor. However, partial acquisition has been carried out for a total of 4 privately owned parcels, which contain multi-storey apartment buildings with multiple individual shareholders (664/181, 664/178, 664/179, and 664/176.)

The partial acquisition was carried out in accordance with Article 8 of the Expropriation Law through negotiated settlement and involved only the portions of the parcels located outside the fenced boundaries of the apartment gardens. Accordingly, the areas acquired for the subproject were not under the actual use of the apartment residents but were already being utilized as part of the existing roadway. Subsequently, the land portions were formally renounced for public road use in compliance with Article 999 of the Turkish Civil Code, which requires registration of easement rights in the land registry to allow lawful use of private land for public purposes.

There are no formal or informal businesses located within the areas subject to land acquisition, however, small family businesses such as grocery stores, barbers, tailors, tea shops, butchers, patisseries, car rental services and textile shops operate near the project corridor. Based on consultations with Kayseri Metropolitan Municipality and as detailed in the ESMP and SEP, appropriate mitigation measures have been planned to prevent any negative impact on local businesses.

This was validated through interviews conducted with 28 affected owners between 12 February and 28 March 2025. All property owners confirmed full compensation was paid and reported no grievances. Visual documentation is provided in Figure 2-26 and stakeholder engagement details are available in the Stakeholder Engagement Plan (SEP).

Commercial Use

Although small businesses exist along certain parts of the project route, no formal or informal commercial establishments (such as shops, kiosks, or street vendors) are located on parcels subject to land acquisition. However, due to the proximity of these businesses to the construction corridor, temporary disturbances such as dust, noise, and limited access may occur.

Temporary Land Use

Temporary land use will be required for the establishment of a construction camp site including worker accommodation camp, contractor's offices, office buildings for institutional controls, security, health cabinet, domestic waste disposal, cafeteria, rest area, water reservoir, temporary construction site facilities, workshop, dormitory, shower-toilets, and storage areas during the construction phase. The site is owned by Kayseri Metropolitan Municipality and zoned as a public park; therefore, it does not have a registered parcel number. It has been confirmed through observations that the area is currently unused. Stakeholder consultations with local authorities, such as neighborhood mukhtars and the authorities of the Recep Tayyip Erdoğan National Garden, as well as potential site users, confirmed that no objections or concerns were raised. Stakeholder engagement activities have verified that the land is not actively used. No negative feedback or concerns regarding this land use have been raised. The exact location is shown in Figure 2-27 and Figure 2-28 for camp site facilities.



Figure 2-26 Private Land Site Photographs (30.04.2025)



Figure 2-27 Accommodation Area-I



Figure 2-28 Close up View of the Accommodaiton Units

Table 2-10. Land Use Information

District	Neighbourhood/Village*	Lot/ Parcel No.	Current Land Ownership (e.g. Applicant Sub-borrower, Private Person, Legal Entity), Treasury, Non-registered, Other)	Type of Parcel (according to Title Deed) (e.g. Agricultural, Pasture, Raw Soil, etc.)	Actual/current use of parcel	Title Deed Area of the Parcel (m²)	Area to be Acquired and Used by the Subproject (m²)	% of Parcel Used for Road	Land Acquisition Method (e.g. Purchase, Lease, Allocation, Easement Rights, etc.)	Status of Land Acquisition
Road Corridor										
MELİKGAZİ	İsağa	1/108	Kayseri Metropolitan Municipality	Masonry House	Road	191,00	0,29	0.15%	Road Dedication (Civil Code Art.999)	Completed
	İsağa	1/124	Kayseri Metropolitan Municipality	Masonry House	Road	63,50	2,76	4.35%	Road Dedication (Civil Code Art.999)	Completed
	İsağa	1/125	Kayseri Metropolitan Municipality	Masonry House	Road	61,50	5,82	9.46%	Road Dedication (Civil Code Art.999)	Completed
	Köşkdagi	418/27	State Treasury	Road	Road	7.055,71	4.889,88	69.3%	Road Dedication (Law 3194 Art.11)	Completed
	Köşkdagi	418/28	State Treasury	Road	Road	11.570,10	6.385,16	55.1%	Road Dedication (Law 3194 Art.11)	Completed
	Köşkdagi	418/30	State Treasury	Road	Road	3.783,71	1.975,37	52.2%	Road Dedication (Law 3194 Art.11)	Completed

	Hunat	1200/26	State Treasury	Field with Kitchen	Road	3.220,97	1.185,50	36.8%	Road Dedication (Law 3194 Art.11)	Completed
	Hunat	1200/28	State Treasury	Agriculture	School Garden	1.334,74	382,63	28.6%	Road Dedication (Law 3194 Art.11)	Completed
	Hunat	1200/30	State Treasury	Two-Story Masonry Student Dormitory with a Basement and Garden	Road	1.367,84	402,47	29.4%	Road Dedication (Law 3194 Art.11)	Completed
	Hunat	1200/32	State Treasury	Plot	Road	237,90	92,74	38.9%	Road Dedication (Law 3194 Art.11)	Completed
	Gediris	439/19	State Treasury	Road	Road	73.605,26	5.412,63	7.3%	Road Dedication (Law 3194 Art.11)	Completed
	Tontar	533/7	Kayseri Metropolitan Municipality	Agriculture	Road	1.550,00	1.550,00	100%	Road Dedication (Civil Code Art.999)	Completed
	Tontar	N/A (Designated Road)	Melikgazi Municipality	Plot	Road	1.675,99	N/A	-	Road Dedication (Law 3194 Art.15 and Art. 16)	Completed
	Erenköy	14093/1	State Treasury	Road	Road	2.377,00	601,04	25.2%	Road Dedication (Law 3194 Art.11)	Completed
	Erenköy	13835/5	State Treasury	Plot	Land without formal/informal use	6.680,62	11.839,67	96.3%	Road Dedication (Law 3194 Art.11)	Completed
	Erenköy	17265/1	State Treasury	Plot	Land without formal/informal use	4.719,79				Completed
	Erenköy	13835/7	State Treasury	Single Storey Reinforced Concrete Administrative Building Two	Land without formal/informal use	379,86	284,43	74.8%	Road Dedication (Law 3194 Art.11)	Completed

				Storey Reinforced Concrete Health Life Center Single Storey Prefabricated Hangar Single Storey Reinforced Concrete Single Storey Prefabricated Shed Single Storey Reinforced Concrete Three Public Coffee Houses Single Storey Steel Three Security Sheds Single Storey Steel Three Security Entrance Jewelry Single Storey Reinforced Concrete Fifteen Wc Single Storey Reinforced Concrete Fifteen Warehouses and Masjid Single Storey Steel Twenty						
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				Six Buffets and Land						
	Tontar	664/181	Private Land	Road	Sidewalk	127,04	110,46	86.9%	Partial Expropriation (Law 2942 Art.8), then road dedication (Civil Code Art.999)	Completed
			Number of Owners: 9		Sidewalk					
	Tontar	664/178	Private Land Number of Owners: 43	Road	Sidewalk	13,74	13,74	100%	Partial Expropriation (Law 2942 Art.8), then road dedication (Civil Code Art.999)	Completed
	Tontar	664/179		Road	Sidewalk	54,98	25,66	46.6%	Partial Expropriation (Law 2942 Art.8), then road dedication (Civil Code Art.999)	Completed
	Tontar	664/176	Private Land	Road	Sidewalk	237,19	166,84	70.3%	Partial Expropriation (Law 2942 Art.8), then road dedication (Civil Code Art.999)	Completed
			Number of Owners: 31		Sidewalk					

2.7.3.3. Employment and Means of Livelihood

During site visits and stakeholder engagement activities, it was observed that various small-scale businesses operate within the primary impact area along the project corridor. These businesses include grocery stores, barbershops, tailor shops, and small-scale tea-serving establishments. Most of these are family-run and provide basic services to nearby neighborhoods. They are generally small in scale and are not located directly on the land parcels acquired under the Subproject; however, due to their proximity to construction works, they may be subject to temporary inconveniences such as dust or limited access. In particular, temporary road closures are planned during the construction phase, and alternative routes will be arranged to maintain general access. Nonetheless, short-term access disruptions may still affect nearby businesses, especially those located along diverted traffic routes. These observations are consistent with the feedback received during stakeholder consultations.

The main sources of livelihood in the neighborhoods within the Subproject's primary impact area are as follows:

- Battalgazi Neighborhood: Workers employed in the Organized Industrial Zone (OIZ), tradespeople, and small business owners.
- Tacettinveli Neighborhood: Individuals working in industrial and service sectors with regular salaried employment.
- Hunat Neighborhood: Wage earners and retirees supported by pensions.
- Gültepe and Erenköy Neighborhoods: Tradespeople, individuals engaged in commerce, and public sector employees.

Detailed information on temporary impacts, access issues, and mitigation measures is provided in Section 4. A summary of stakeholder feedback related to local business access and construction activities is provided below, with further details available in the Stakeholder Engagement Plan (SEP).

Stakeholder Engagement Summary:

During consultations with local residents and business owners, concerns were expressed about potential impacts during the construction period, including dust, noise, and temporary access restrictions. No permanent livelihood losses are anticipated. Stakeholders emphasized the need for timely information regarding construction hours and material transport operations. These concerns have been reflected in the mitigation planning (see Section 4). For detailed records and additional feedback, please refer to the SEP.

2.7.3.4. Education and Health Services

A detailed assessment of sensitive and community-use receptors located along and within the Area of Influence (AoI) of the subproject has been conducted. Based on satellite imagery and field observations, the following key facilities are located in close proximity to the subproject AoI:

Educational institutions: Mimar Sinan Vocational and Technical Anatolian High School, Selçuklu Anatolian High School, and Merkez Vocational and Technical Anatolian High School are located within a 100–250 meter radius of the construction area. Mimar Sinan High School lies approximately 40 meters from the active construction zone.

Health institutions: Hüma Hospital and Acıbadem Kayseri Hospital are located approximately 180 m and 400 m from the subproject site, respectively.

Community facilities: Kartal Martyrdom Monument, Recep Tayyip Erdoğan National Garden, Kayseri Provincial Directorate of National Education, and Kayseri Provincial Directorate of Family and Social Services are within the AoI.

Local businesses: Along the intersection near K-3 junction, small-scale businesses such as Duru Butcher, Şahmar Patisserie, Şahmar Rent A Car, and a textile facility (Alintaş Tekstil) are actively operating and may experience temporary access disruptions.

To minimize construction-related impacts (e.g., dust, vibration, access blockage), site-specific mitigation measures have been developed including prior notification procedures, alternative access arrangements, signage, and dust/noise suppression protocols (see Table 2-11).

There are a total of 7 education institutions in the AoI of the Subproject. These are:

Table 2-11. Education Institutions

Institution Name	Neighborhood	Distance from the Subproject Area/Corridor (m)	Information
Mimar Sinan Technical and Industrial Vocational High School	Gültepe	40 m	Number of Classrooms: 26 Number of Teachers: 94 Number of Students: 753 ¹⁰
Merkez Vocational and Technical Anatolian High School	Hunat	200 m	Number of Classrooms: 40 Number of Teachers: 140 Number of Students: 1463 ¹¹
Nuri Has Middle School	Tacettinveli	135 m	Number of Classrooms: 9 Number of Teachers: 36 Number of Students: 533 ¹²
Selçuklu Anatolian High School	Tacettinveli	80 m	Number of Classrooms: 26 Number of Teachers: 60 Number of Students: 1148 ¹³
Ülfet Kızıklı Primary School	Battalgazi	290 m	Number of Classrooms: 15 Number of Teachers: 20 Number of Students: 348 ¹⁴
Private Anadolu College Secondary School	Esenyurt	132 m	Number of Classrooms: 15 Number of Teachers: 20 ¹⁵
Anadolu College Primary and Secondary School	Esenyurt	215 m	Number of Classrooms: 35 Number of Teachers: 90 Number of Students: 700 ¹⁶

On the other hand, there are 2 health centers in the AoI of the Subproject. These are:

Table 2-12. Health Institutions

Institution Name	Neighborhood	Distance from the Subproject Area/Corridor (m)	Information
Specialist Dental Hospital	Tacettinveli	185 m	50 Dental Units

¹⁰ <https://mimarsinanteml.meb.k12.tr/>

¹¹ <https://merkezmtal.meb.k12.tr/>

¹² <https://nurihas.meb.k12.tr/>

¹³ <https://selcuklual.meb.k12.tr/>

¹⁴ <https://ulfetkizikliilkokulu.meb.k12.tr/>

¹⁵ <https://anadolukoleji.com/ortaokul/>

¹⁶ The information was obtained in a telephone consultation with the stakeholder on 27.03.2025.

			34 Doctors 2 Operating Rooms ¹⁷
Kayseri Kızılay Hospital	Tacettinveli	300 m	29 Doctors 52 capacity for beds ¹⁸
Private Erciyes Hospital	Tacettinveli	220 m	66 Doctors ¹⁹
Hüma Hospital	Tacettinveli	180 m	20 Doctors ²⁰
Acıbadem Kayseri Hospital	Hunat	400 m	105 Doctors 105 capacity for beds ²¹

2.7.3.5. Infrastructure Services

The Table 2-13. below provides a summary of the infrastructure services available within the Subproject's impact area

Table 2-13. Infrastructure Services

Negihborhood	Water Supply	Sewer System	Waste Management	Electricity Infrastructure
Battalgazi	KASKİ	KASKİ	Melikgazi Municipality	KCETAŞ
Erenköy	KASKİ	KASKİ	Melikgazi Municipality	KCETAŞ
Esenyurt	KASKİ	KASKİ	Melikgazi Municipality	KCETAŞ
Gültepe	KASKİ	KASKİ	Melikgazi Municipality	KCETAŞ
Hunat	KASKİ	KASKİ	Melikgazi Municipality	KCETAŞ

2.7.3.6. Transportation and Traffic

Kayseri is under the jurisdiction of the 6th Regional Directorate of Highways. The province has a total road network of 1,081 km, comprising 457 km of state roads and 624 km of provincial roads. Kayseri is connected to neighboring provinces, including Yozgat, Nevşehir, Niğde, Sivas, Kahramanmaraş, and Adana, via divided and state roads. The distances to surrounding provinces are as follows: 175 km to Yozgat, 81 km to Nevşehir, 128 km to Niğde, 194 km to Sivas, 273 km to Kahramanmaraş, and 333 km to Adana. The highway map of the 6th Regional Directorate of Highways (Kayseri and its surroundings) is provided below Figure 2-29.

¹⁷ <https://uzmandent.com.tr/hakkimizda/>

¹⁸ <https://www.kizilaysaglik.com.tr/hastanelerimiz/kayseri-kizilay-hastanesi/>

¹⁹ <https://www.erciyeshastanesi.com.tr/index>

²⁰ <https://www.humahastanesi.com.tr/>

²¹ <https://www.acibadem.com.tr/hastane/kayseri-hastanesi/>

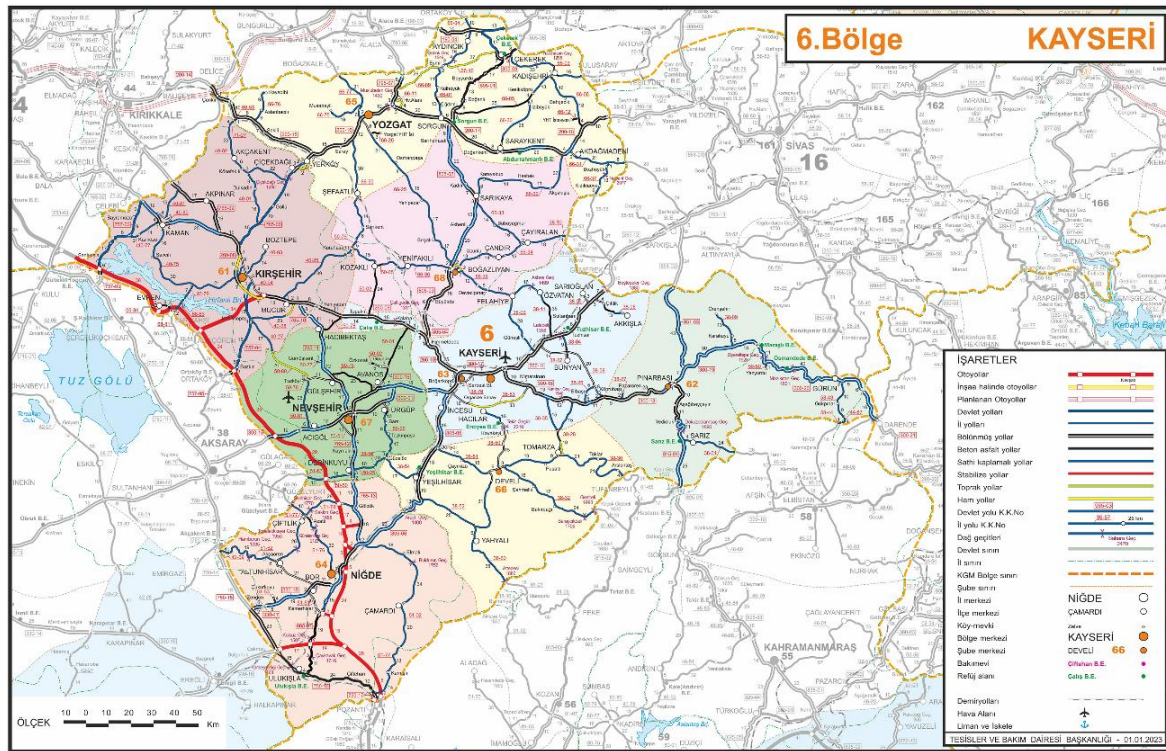


Figure 2-29 Highway Map of the 6th Regional Directorate of Highways (Kayseri and Surroundings)

Kayseri is at the point of transit traffic between regions due to its location. The sections with high transit traffic are the D-260 Northern Ring Road passing through the north of the city. There is a significant traffic load on the highways due to Kayseri being an industrial city and its commercial relations with other regions. The annual average daily traffic (AADT) values on the state roads, which serve as the main transportation axes of Kayseri, were examined. According to the 2023 annual average daily traffic (AADT) data provided by KGM, the 260-10 highway section includes slices 1 and 2, with a total AADT value of 32,594 vehicles per day. In the 300-17 highway section, the total AADT value for slices 2, 3, and 4 is 66,704 vehicles per day. The AADT value for slice 1 of the 260-11 highway section is 17,958 vehicles per day, while the AADT value for section 1 of the 300-18 highway section is 16,918 vehicles per day. The annual average daily traffic (AADT) counts for 2023 within the borders of the 6th Region of Highways are given below Figure 2-30.

The subproject site is located in the Melikgazi district of Kayseri and includes Kartal Junction and its connecting roads (K1, K2, K3). These roads are situated along the D260 and D300 state highways, which are part of the regional road network. The traffic volume at the junctions is affected by both urban and regional traffic movements. Therefore, although the AADT values provided above refer to larger highway segments, these segments are directly connected to the subproject area. For example, the K1 and K2 junctions connect to Mehmet Özhaskeci and Talas Boulevards, which receive heavy traffic from these highway sections. For this reason, including these traffic data is important to understand the subproject's position in the wider urban and regional transport system, to assess background traffic load, and to highlight its strategic importance.*

*Source: Kayseri Kartal Intersection and Connection Roads Feasibility Study Report, Section 2.2.3 – Transportation Infrastructure of the Province; Section 4.1.1. – Current Situation.

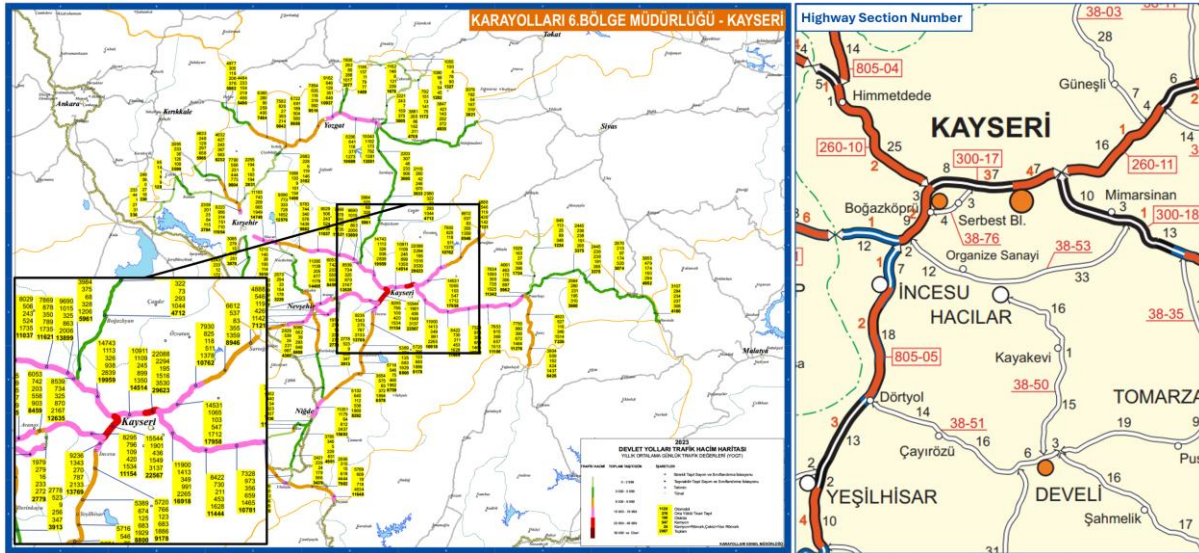


Figure 2-30 Highways 6th Regional Directorate 2023 YOGT

2.7.3.7. Cultural Heritage (Tangible²² and Intangible²³)

The closest cultural heritage asset to the subproject area is the Döner Tomb, located 290 m away from the subproject area. Additionally, the Industrial Vocational High School Foundry and the Industrial Vocational High School B-Block Mechanical Drawing Workshop, registered cultural properties, are located approximately 230 meters from the subproject area. The Kartal Martyrs' Cemetery and Emir Ali Tomb, located within the subproject area, are also protected cultural heritage sites. Both the Martyrs' Cemetery and the Emir Ali Tomb are situated within the Kartal Intersection Martyrs' Park area. (see Figure 2-31 and Figure 2-32).

²² According to WBG ESF (2018), tangible cultural heritage includes movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water.

²³ According to WBG ESF (2018), intangible cultural heritage includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artifacts and cultural spaces associated therewith—that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.



Figure 2-31 Nearest Cultural Heritage

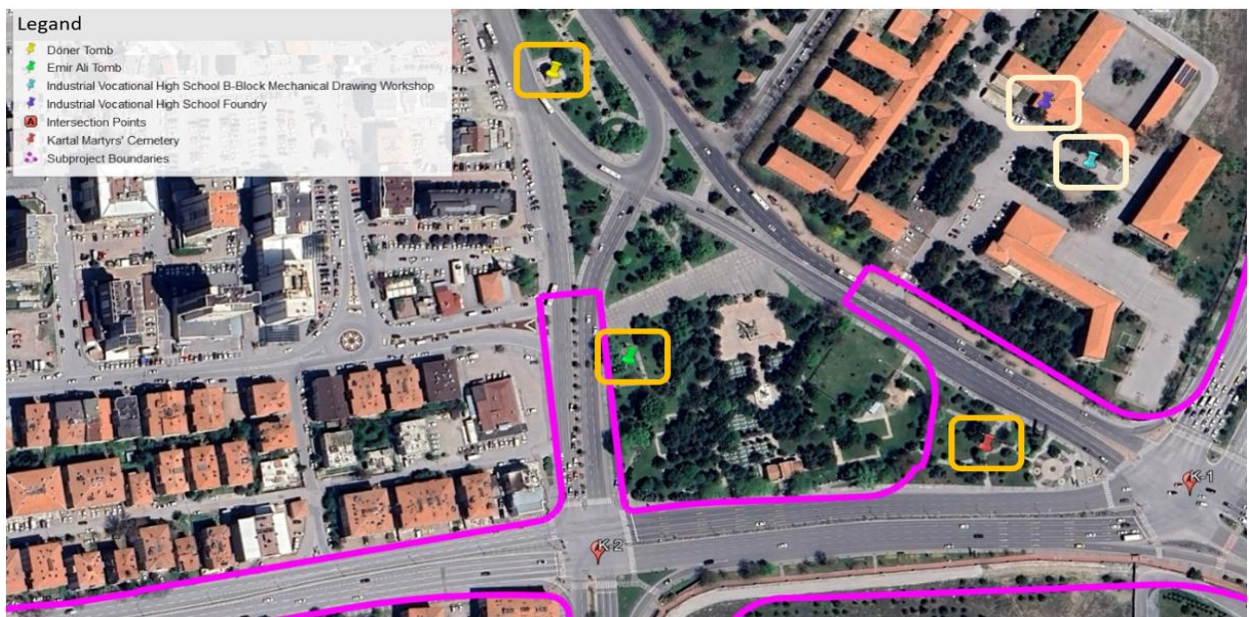


Figure 2-32 Nearest Cultural Heritage (Close View)

In addition to tangible heritage, Kayseri—particularly the Melikgazi district—is known for rich elements of intangible cultural heritage, such as traditional handicrafts, local cuisine, and community festivals. Based on field assessments and interviews with mukhtars, no direct association or interaction was identified between project-affected neighborhoods and these intangible practices. Therefore, no adverse impacts on intangible cultural heritage are anticipated.

The Kayseri Regional Council for the Conservation of Cultural Heritage reviewed the subproject plans for the Kartal Junction and Access Roads, including sections that are partially within the protected area boundaries of registered cultural assets. In its meeting on 19 December 2024 (Decision No: 8324), the Council concluded that the subproject may proceed provided that all necessary consents are obtained, and protective measures are implemented to avoid any damage to the registered structures. The implementation will be supervised by the Kayseri Regional Directorate of Cultural Heritage and Museums and related institutions. Additionally, any findings related to cultural heritage during implementation must be reported to the Council and the Museum Directorate in accordance with Article 4 of Law No. 2863.

The Kayseri Regional Council for the Conservation of Cultural Heritage’s official opinion of 2 January 2025 (Decision No: 8380) mentions the Industrial Vocational High School Foundry and Industrial Vocational High School B-Block Mechanical Drawing Workshop and other registered cultural properties located in Melikgazi district. This decision confirmed that the project may proceed within the boundaries of the protected cultural heritage areas, provided that appropriate protection and registration measures are followed.

Due to this proximity of the Döner Tomb and other protected assets in the area, a Cultural Heritage Management Plan (CHMP) has been developed to ensure that the site is protected from any potential adverse impacts during construction and operation. The CHMP includes specific protection measures, monitoring protocols, and emergency response procedures in line with national legislation and World Bank ESS8 requirements. Coordination with the Regional Directorate for the Protection of Cultural Heritage and relevant stakeholders will be maintained throughout the Subproject lifecycle. The official opinion of the Kayseri Cultural Heritage Preservation Regional Board under the Ministry of Culture and Tourism is provided in Annex B.

Following consultations with Kayseri Metropolitan Municipality officials and site visits, it was assessed that additional site-specific protective measures are necessary to prevent potential vibration and construction-related impacts around the cultural heritage assets. Physical barriers made of appropriate materials will be installed around the tomb and other cultural assets to minimize vibration and other construction effects.

Monitoring and supervision activities by Kayseri Metropolitan Municipality will ensure the effective implementation of these measures. The frequency and scope of inspections are detailed in Section 4.1.2.8 of this report.

The Cultural Heritage Management Plan (CHMP) prepared for the subproject includes these site-specific measures and complies with national legislation and World Bank ESS8 requirements. Coordination with relevant authorities will continue throughout the project lifecycle.

Disadvantaged or Vulnerable Individuals or Groups

In line with the World Bank Environmental and Social Standards (ESSs), the following disadvantaged or vulnerable groups have been identified within the Subproject’s primary area of influence, based on consultations with local mukhtars from Battalgazi, Erenköy, Hunat, Gültepe and Esenyurt and site-specific surveys:

- Children
- Elderly individuals (65+)
- Persons with chronic illnesses or in need of special care
- Refugees/immigrant households (e.g. Syrian refugees)
- Persons with disabilities
- Poor households (those officially registered with social assistance institutions and/or identified by local mukhtars as households with low or irregular income that rely on government aid or community-based support)
- Unemployed individuals

Gender-specific vulnerabilities were not systematically assessed during the baseline consultations. However, the Subproject acknowledges that women—particularly elderly women, single caregivers, or those with limited mobility—may face challenges related to access, safety, and information during construction activities. While no female-headed households were directly identified during consultations, inclusive communication and engagement efforts will be ensured during implementation in line with the principles of ESS10. A more detailed gender analysis may also be considered as the Subproject progresses.

As outlined in Section 2.7.3.4., institutions providing education and healthcare services within the Project's area of influence have also been identified and included in the mitigation measures (see also Sections 4.1.2.3., 4.1.2.4., 4.1.2.5., and 4.1.2.7). This consideration reflects the importance of assessing potential risks such as interaction between students and ongoing construction activities, mobility constraints for vulnerable individuals needing to cross the construction corridor (e.g. children, elderly, people with disabilities), and the development of specific mitigation measures to address such risks.

Table 2-14. Distribution of Disadvantaged/Vulnerable Groups by Neighborhood

Neighborhood	Children	People Over 65 Years	People with Chronic Illnesses or in Need of Special Care	Refugees /Immigrant Households	Persons with Disabilities	Poor Households	Unemployed Individuals
Battalgazi	3000	200	300	100	200	1000	300
Erenköy	5000	1000	25	-	10	15	-
Hunat	150	2500	1000	15	50	150	100

Gültepe	2000	15	15	15	10	125	30
Tacettinveli	2000	250	100	150	300	250	1000
Esenyurt	5000	1500	300	-	200	100	50
Total	17150	5465	1740	280	770	1640	1480

Risk Considerations and Anticipated Impacts:

- The demographic data above reflects general vulnerability in the area. The potential risks associated with Subproject activities on these groups have been assessed as follows:
- Children: Increased risk of accidents near schools or residential areas due to construction traffic.
- Elderly and persons with disabilities: Mobility constraints during temporary road closures or detours.
- Unemployed and low-income groups: May face difficulties in accessing information or consultation events due to transportation costs or limited accessibility.
- Migrants: May face language barriers in understanding engagement and project-related information.

2.8. Other Institutions' Infrastructure to be Displaced

Within the scope of the Kartal Intersection and Link Roads Subproject, the potential displacement of infrastructure owned by other institutions has been assessed through official correspondence initiated by the Kayseri Metropolitan Municipality (KMM) with relevant public agencies. In particular, a formal request was submitted to the Kayseri Water and Sewerage Administration (KASKİ) to determine the presence of water and wastewater pipelines potentially containing asbestos within the project corridor. In response to the official letter dated 19.02.2025 (Ref: E-58535219-622-2025-31/4910), KASKİ provided a reply on 19.03.2025 (Ref: E-94008629-622.01-63939), confirming the presence of both active and decommissioned asbestos water lines within the project area (Annex K). A satellite image and a digital map indicating the exact locations of these pipelines were also provided to guide construction activities and prevent unintended damage to existing infrastructure Figure 2-33.



Figure 2-33 Locations of the Pipelines

In this context, the removal of asbestos-containing pipes will be carried out in compliance with applicable health and environmental legislation by a certified subcontractor with proven expertise in asbestos handling. The Municipality carries out its activities in accordance with the provisions of the Regulation on Health and Safety Measures in Asbestos-related Works and the relevant legislation of the Ministry of Environment and Urbanization. The Municipality does not have personnel with the appropriate technical qualifications or equipment for asbestos removal within its organization.

Within the scope of this work, in line with the applicable regulations and legislation, asbestos measurement and sampling shall be conducted by accredited laboratories authorized by the Republic of Türkiye Ministry of Labour and Social Security (or Kayseri Provincial Directorate of Environment, Urbanization and Climate Change) and accredited by the Turkish Accreditation Agency . The removal of asbestos materials shall be carried out by certified asbestos removal experts and workers. Upon completion of the demolition and dismantling project, the transportation and disposal of asbestos waste in compliance with the legislation shall be undertaken by a waste transport company licensed by the Ministry of Environment and Urbanization and an authorized waste disposal facility.

These obligations shall be the responsibility of the contractor and will be specifically addressed within the tender documentation.

Regarding the electricity infrastructure, it was communicated by the Kayseri Metropolitan Municipality that KCETAŞ (Kayseri Electricity Turkish Joint Stock Company), which is a municipal affiliate, will directly undertake the relocation works. As KCETAŞ operates under the ownership of the municipality, no additional formal written directive is required; the relocation will be managed as part of internal institutional coordination. The figure below shows the KCETAŞ infrastructure cables in the project area Figure 2-34.

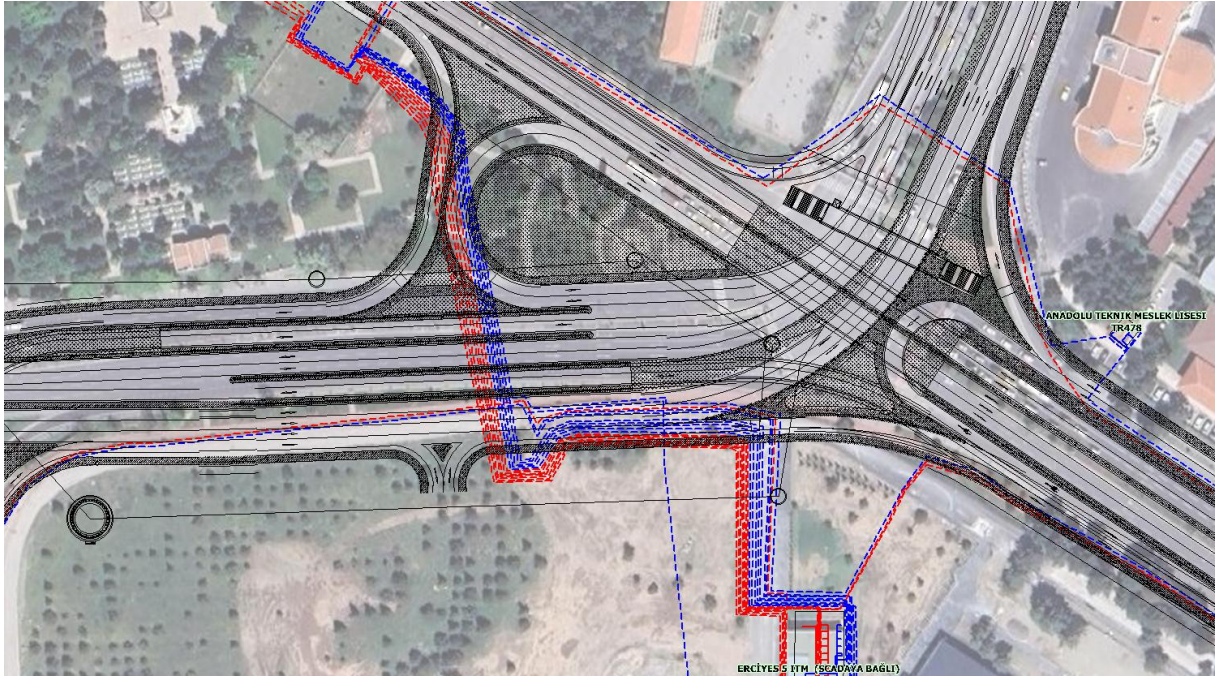


Figure 2-34 Location of Infrastructure Cables of KCETAŞ

Based on this official correspondence and the municipality's declaration, it is concluded that all relevant institutions have been consulted, and there is no unidentified infrastructure requiring displacement beyond what has been reported. All necessary relocation works will be carried out by the responsible institutions in coordination with the municipality and within the planning framework of the Subproject

3. SUBPROJECT ACTIVITIES

3.1. Construction Phase

3.1.1. Construction Activities

Construction activities will be completed in 18 months. Detailed implementation schedule envisaged for the construction phase activities (including provisional acceptance) is presented in Chapter 6.

Construction phase activities are briefly described below:

- Pre-construction activities:

As a result of the ground investigation and geophysical studies carried out in the field, it is also envisaged that ground improvement will be carried out with deep pile foundations. In the event that reinforced earth embankment walls are formed on the bridge approaches; ground improvement works will be carried out under these walls in the same manner.

- Construction activities:

The construction activities will be carried out in a single stage across the designated areas. During this period, roads within the subproject area will be entirely closed to traffic as needed. In some parts of the road, construction works will be carried out concurrently with live traffic flow. In this context, only one lane of the existing road will remain open to vehicular traffic, while construction activities will continue within the remaining sections of the road corridor. These one-lane areas will serve as temporary service roads, where asphalt resurfacing and sidewalk renovation works will be performed. These works are planned to be completed within a maximum period of 10 days. During this period, other parts of the project will have been completed and opened to traffic, ensuring uninterrupted access to the designated service road areas. The main purpose of keeping these lanes open is to maintain continuous access to shops, workplaces, and commercial units located within the construction zone.

The service road areas will be physically separated from the construction zone with barriers, in accordance with occupational health and safety measures, thereby preventing any interaction between construction works and live traffic.

- The designated service road areas are shown in Figure 2-6. The following traffic management measures have been planned to ensure safe and organized traffic flow throughout the construction period:
- During the construction period, intersections with two-phase signalization systems will be established at five different locations in the Project impact area. This arrangement will minimize traffic congestion by ensuring that traffic flow is directed in a regular and safe manner.
- Alternative routes generally planned as one-way. In this way, traffic flow will be more regularized, vehicle density will be reduced and potential risks that drivers may face will be minimized.
- Double lane traffic flow will be applied at certain points. This method will reduce traffic congestion and ensure faster and safer vehicle passage.
- Road widening works will be carried out. This will increase traffic flow capacity in high density areas and prevent congestion.
- During activities conducted near service roads that are separated from the construction area by single-lane barriers, appropriate barricading will be implemented between live traffic and construction operations. This will help prevent unauthorized crossings and minimize risks such as falling or splashing of materials. A speed limit of 30 km/h will be enforced on these service roads. To ensure compliance with this speed limit, speed bumps will be installed at designated locations.
- During nighttime operations, reflective and illuminated warning signs will be used to enhance visibility and increase driver awareness.
- In the event of short-term occupations of the service roads due to specific activities, traffic flow and site safety will be managed by flagmen assigned by the contractor. Communication between flagmen will be maintained by two-way radios when positioned far apart, and by hand signals when in close proximity.
- Temporary roads have been created. These temporary roads will ensure traffic flow continuity, reduce waiting times for drivers and support safe driving conditions.
- There will be a parking ban on alternative routes between 06.00 am and 20.00 pm. This arrangement will ensure that the roads are used at their maximum carrying capacity and prevent traffic disruption.
- Necessary signage and traffic warning signs will be installed on all alternative routes and main roads. These signs will provide guidance for drivers and pedestrians, avoiding potential confusion.
- In order to inform the public and drivers, announcements will be made through posters, brochures, billboard advertisements, and the websites of Kayseri Metropolitan and Melikgazi Municipalities. In addition, information

brochures will be distributed to mukhtars' offices to ensure that residents are aware of traffic regulations. These information activities will contribute to the safe and smooth flow of traffic.

- Additional measures will be taken to implement dynamic traffic management systems by regularly analyzing the density of alternative routes.
- Temporary pedestrian paths will be created in K1, K2 and K3 work areas during construction activities.
- Traffic police or municipal police teams will improve traffic safety by providing guidance support at critical points during peak hours.

Within the scope of the Subproject in question, 3 Intersection, 21 connecting roads, 2 underpass-type tunnels, 3 underpasses, a stormwater drainage system, a tunnel lighting system, a power supply infrastructure, and safety barriers will be constructed.

Within this scope, the tunnels are proposed to be constructed using the cut-and-cover tunnel system.

The cut-and-cover tunnel method is a widely used technique in tunnel construction, especially in urban areas, densely built environments, or where minimizing environmental impact is crucial. In this system, the surface above the excavation area is opened for tunnel construction, and the area is subsequently restored.

- Construction machinery and equipment:

Table 3-1. Machinery and Equipments

Machinery and Equipment	Number of Machinery and Equipment
Concrete Mixer	1
Concrete Pump	1
Backhoe	1
Excavator	2
Rebar Cutting and Bending Machine	1
Truck	3
Crane	1
Bored Piling Machine	1
Asphalt Scarifying Machine	1
Cylinder	1
Asphalt Paver	1
Mixer Shaft	1

- Water use and wastewater management:

Packaged water will be purchased for employees' drinking water needs. Water for domestic use will be supplied from the mains. In case of need, water will be brought to the site by tanker.

- A septic tank will be installed on site for wastewater originating from personnel, and wastewater will be disposed of from the site at regular intervals via a vacuum truck. As another option, a mobile toilet can be used on site instead of a septic tank.
- Waste and hazardous materials management:

Whether or not a camping area will be created depends on the contractor and has not yet been finalized.

It is expected that domestic waste, packaging waste and contaminated wastes and waste oils will be generated at the site due to personnel and activities at the site. A Temporary Waste Storage Area will be established on site for these wastes and the wastes will be disposed of by a licensed company.

- Supply and use of other resources and materials:

Backfill material will be brought in as part of the activities at the site. However, it is not yet clear where the backfill material will come from.

The quarry location shown in this ESMP reflects the most likely quarry to be used, based on its proximity to the Subproject area and its technical suitability. This approach was adopted to provide a realistic estimate for planning purposes. Final confirmation, including permits and access routes, will be provided once the subcontractor is appointed. In the Gürpınar and Kamber regions indicated in Figure 3-1, there are approximately 20 licensed quarries. The area generally produces limestone and andesite suitable for use in infrastructure. It is anticipated that the contractor responsible for the work will procure materials

from these licensed quarries. The quality of the material from the selected quarry, its suitability for the intended work, and the licenses issued by the General Directorate of Mining and Petroleum Affairs under the Ministry of Energy and Natural Resources will be supervised by the administration and the consultant assigned for the construction works.

- Supply of materials and equipment:

Backfill material will be brought from the quarry. Information on other materials and equipment to be procured will be finalized after the determination of the contractor company.

- Decommissioning of temporary construction facilities

A construction site will be identified for the contractor's field personnel and containers are planned to be placed in this area. After the construction activities are completed, these containers will be removed from the site.

The excavation works at the K1, K2 and K3 intersections are expected to generate approximately 252,342 m³ of excavated material. Transportation of the excavated material to the dump site can be completed in 115 days with 20 trucks making 5-6 trips per day.

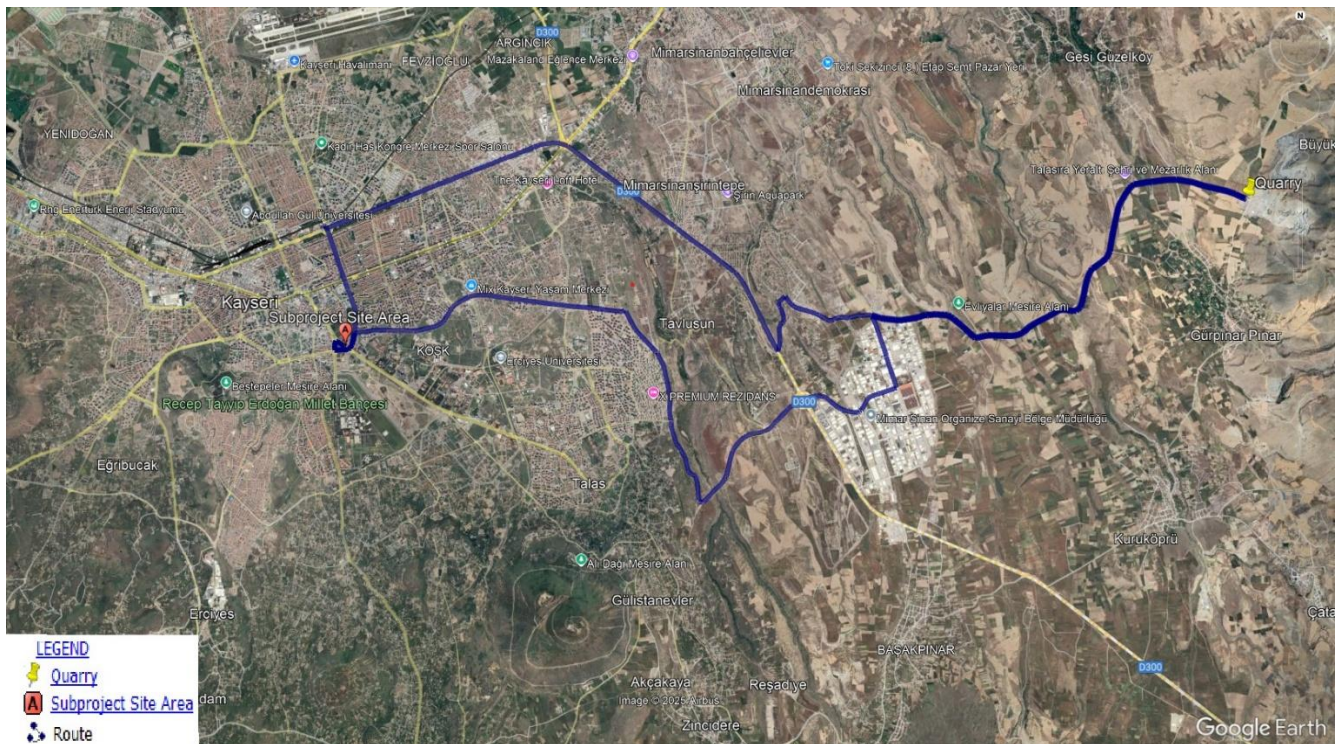


Figure 3-1 Quarry Route

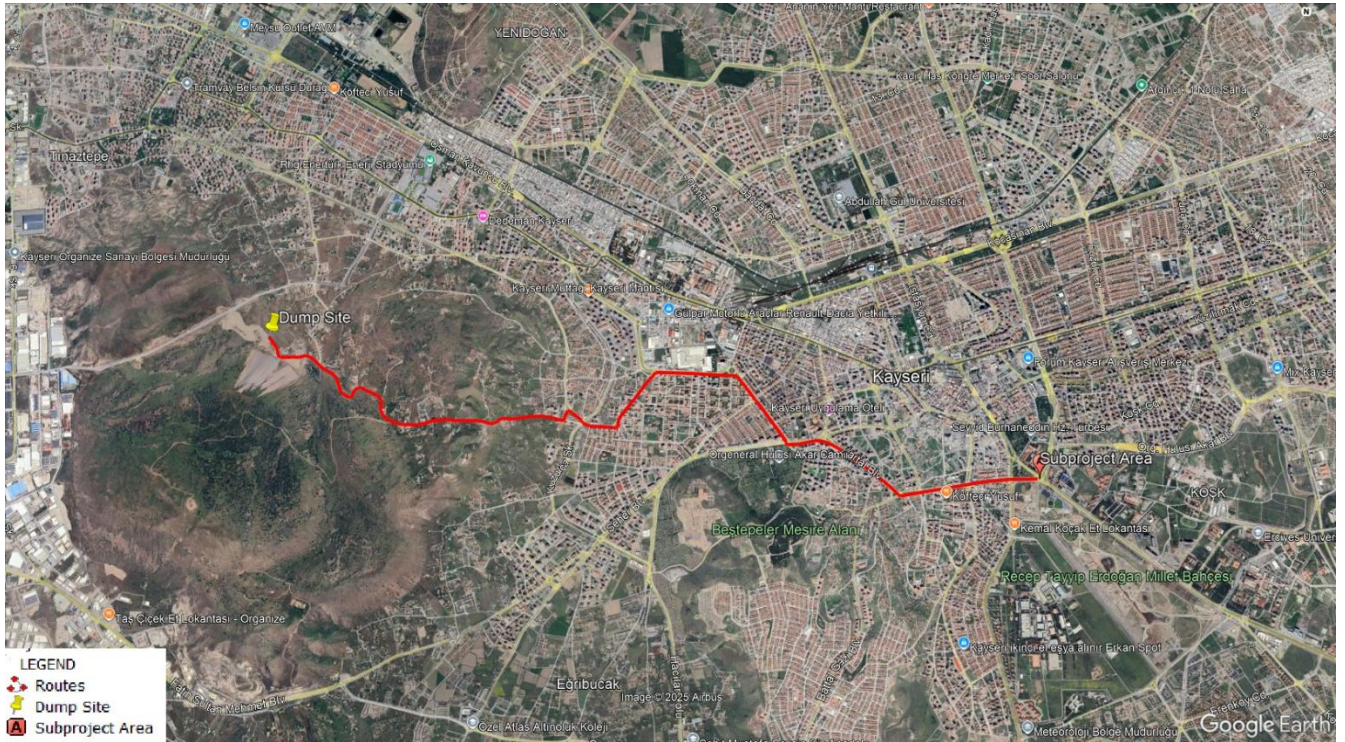


Figure 3-2 Yılanlı Dump Site Route

3.1.2. Construction Facilities

A temporary construction camp will be established within the subproject area to accommodate field personnel. The proposed site is located on land owned by Kayseri Metropolitan Municipality and is designated as a public park in the zoning plan. Therefore, it does not have a specific parcel number in the land registry.

The construction camp will include modular dormitories, showers, toilets, a dining hall, offices for the Contractor and the Project Implementation Unit (PIU), and designated areas for equipment storage. The camp will also be equipped with necessary infrastructure such as potable water supply, wastewater connection to the KASKİ network (where applicable), and temporary waste storage units, in compliance with national and municipal regulations.

All construction facilities, including those listed in Table 3-2 will be designed and operated in accordance with Turkish Occupational Health and Safety Law No. 6331 and relevant implementing regulations, as well as the World Bank Group Environmental, Health, and Safety (EHS) Guidelines—specifically the General EHS Guidelines (2007). These standards ensure that adequate measures are taken in areas such as sanitation, water supply, ventilation, fire safety, and emergency preparedness.

The exact scope, capacity, and layout of construction facilities—including the detailed design of the temporary construction camp—will be finalized by the Contractor upon mobilization. This section will be updated accordingly once the final construction site plan and facility specifications are available.

Within the scope of worker welfare arrangements, designated rest areas will be established on-site to ensure appropriate conditions for breaks and daily needs. The method of meal provision, however, has not yet been finalized. It is currently unclear whether meals will be prepared on-site or delivered from external sources. This detail will be clarified at a later stage, during contractor mobilization.

Construction facilities to be used during construction activities are listed in Table 3-2.

The access road from the construction camp to the site will be directed to Talas Boulevard, following the same corridor with sensitive receptors such as Kayseri Provincial Directorate of National Education, Mimar Sinan Vocational and Technical Anatolian High School and Kayseri Melikgazi Guidance and Research Center. These sensitive receptors close to the camp area shown on the map in Figure 2-18, Figure 2-19 and the Camp Area Access Road are shown on the map in Figure 3-3. Potential impacts on these receptors and related mitigation measures will be evaluated in Section 4.1.2.3, 4.1.2.4, 4.1.2.5 and the Construction ESMP Matrix.

Table 3-2. Construction Facilities

Type	On-site or Off-site	Temporary or Permanent	List of Facilities
Construction Camp Site	On-site	Temporary	<ul style="list-style-type: none"> • Contractor's offices • Septic Tanks • Worker's accommodation • Dining Hall and Rest Area • Household Waste Area • Water Tank • Dormitory, Shower, WCs • Warehouse (2 Units) • Workshop • Health Cabinet • Security Entrance
Construction Site	On-site	Temporary	<ul style="list-style-type: none"> • Temporary Waste Storage Area



Figure 3-3 Subproject Area and Camp Site

3.2.Operation Phase

3.2.1.Operation Activities

The operation phase consists of the following parts:

-Traffic Management and Operation

-Maintenance and Repair Works

-Safety Measures and Emergency Management

- Monitoring and analyzing traffic accidents at the intersection
- Taking measures to improve traffic safety

Implementation of emergency response plans

3.2.2.Operation Facilities

The operational facilities and components of the Subproject will be as follows. Features of these facilities were previously summarized in Table 2-1.

The design of the Kartal Junction and Access Roads Subproject incorporates several measures to ensure pedestrian safety. These include the construction of pedestrian underpasses and overpasses at key locations with high traffic volumes to ensure safe crossings without interrupting vehicle flow. Sidewalks are planned to be constructed along the roads, where technically feasible, and will be designed in line with accessibility standards to accommodate all users, including persons with disabilities. In addition, clearly marked zebra crossings will be provided at signalized intersections and other appropriate locations to support safe at-grade pedestrian movement. These features are integrated into the project design to promote a safe and inclusive urban environment for pedestrians.

Pedestrian circulation within the project area provides access to the nation's garden via sidewalks along Tacettin Veli Boulevard, Sht. Tarık Kocoglu Boulevard, Mehmet Ozhasaki Boulevard, Mustafa Kemal Pasha Boulevard, and Talas Boulevard. The project includes five pedestrian crossings. The first pedestrian crossing is located west of Mehmet Ozhasaki Boulevard and connects the northern and southern parts of the project area, ensuring pedestrian access to the nation's garden. The second pedestrian crossing is located on the west side of Kartal Boulevard, connecting the northern and southern parts of the project area and providing pedestrian access to the Nation's Garden. The third pedestrian crossing is situated on the east side of Kartal Boulevard, directing pedestrians coming from Mustafa Kemal Paşa Boulevard to the second pedestrian crossing. The fourth pedestrian crossing is situated along Mustafa Kemal Pasha Boulevard and provides a connection between the northern and southern sections of the project area. The fifth pedestrian crossing facilitates access between Talas Boulevard and the nation's garden. The pedestrian circulation plan for the project is presented below Figure 3-4.

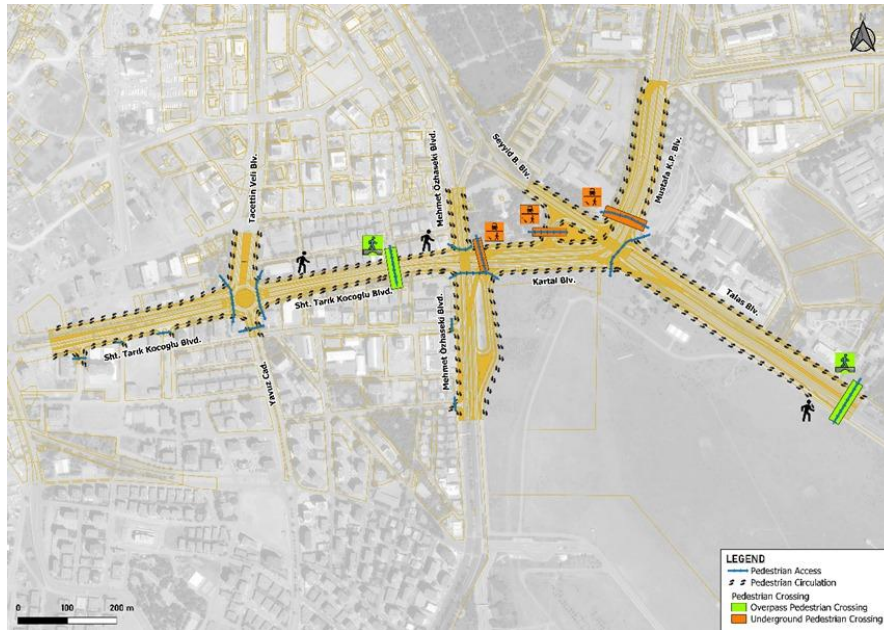


Figure 3-4 Project Pedestrian Circulation

3.3.Labor Requirements

During the construction phase of the Subproject, the total number of workers to be employed on-site is estimated at 126 personnel. This figure represents the peak number of workers expected during construction and includes both contractor and subcontractor personnel ²⁴(see Figure 3-5).

²⁴ Kayseri Kartal Intersection and Connection Roads Feasibility Study Report

TECHNICAL STAFF	Quantity
Project manager	1
Documentation and final account engineer	2
Survey and project control engineer	2
Data preparation technician	2
Electrical / electronics engineer	1
Electric / electronics technician	1
Machine technician	1
Administrative staff	3
Construction site supervisor	1
Occupational safety and health (osh)	2
Field engineer	4
Quality control engineer	2
Topography	3
Research technician	2
Surveyan	4
Shenör	3
Map technician	3
Total	37
WORKER	Quantity
Iron works team	20
Mold and concrete works	20
Infrastructure works (stormwater, wastewater etc.)	15
Mechanical works	4
Electrical works	4
Landscape works	6
Worker	20
Total	89
GENERAL TOTAL	126

Figure 3-5 Estimated Labor Distribution by Position for the Construction Phase of the Subproject

To ensure proper accommodation and welfare of the workforce, a temporary worker accommodation camp is planned within the project area. The facility will be established on land owned by Kayseri Metropolitan Municipality. This land is designated as a public park in the zoning plan and does not have a specific parcel number in the land registry. Necessary temporary land-use permits and approvals will be obtained from the Municipality prior to the commencement of construction works.

At this stage, details such as number of shifts, working hours per shift, and whether night-time works will be required have not yet been finalized. These arrangements will be clarified following the selection of the construction contractor and the finalization of the work program.

Construction activities will be implemented in full compliance with:

- Turkish Labor Law No. 4857 and Occupational Health and Safety Law No. 6331;
- Core labor conventions of the International Labour Organization (ILO), including Conventions Nos. 29, 87, 98, 100, 105, 111, 138, and 182;
- World Bank Environmental and Social Standards (ESS), particularly ESS2: Labor and Working Conditions;
- World Bank Group Environmental, Health, and Safety (EHS) Guidelines.

The Subproject's Code of Conduct (CoC), provided in Annex J, sets out the expected standards of behavior, ethical conduct, and responsibilities for all workers and contractors. It complements the Labor Management Plan (LMP) by reinforcing principles of respectful workplace behavior, non-discrimination, prevention of harassment, and compliance with legal and social standards.

Key measures to ensure compliance include:

- Transparent and non-discriminatory recruitment procedures;
- Provision of written contracts and clear communication of worker rights and responsibilities;
- Implementation of occupational health and safety (OHS) protocols, including regular training, provision of personal protective equipment (PPE), and emergency planning;
- Establishment of a confidential and accessible Worker Grievance Mechanism;
- Strict prohibition of child labor, forced labor, and any form of harassment or abuse;

- Compliance with national requirements on wages, working hours, rest periods, and social security contributions;
- Monitoring of contractor and subcontractor practices and corrective actions when necessary.

All contractors and subcontractors will be required to comply with the provisions of the project-specific Labor Management Plan (LMP). Labor management performance will be monitored by the Project Implementation Unit (PIU) throughout the Subproject lifecycle.

For the operation phase, maintenance and repair work will be carried out by maintenance teams from Kayseri Water and Sewerage Administration (KASKİ), Department of Mechanical Supply, Department of Public Works, Department of Transportation and Department of Parks and Gardens. These teams will be responsible for the necessary maintenance and repairs during the operational phase. It is estimated that approximately 10 personnel will be assigned for these tasks, although the exact number may vary since no fixed team will be in place during the operation phase.

3.4.Land Acquisition Status

Land acquisition for the Kartal Junction and Access Roads Subproject has been carried out in accordance with national legislation—including Zoning Law No. 3194 Article 11, Article 15 and Article 16, Turkish Civil Code Article 999, and the Expropriation Law No. 2942 Article 8—as well as the World Bank Environmental and Social Standard 5 (ESS5): Land Acquisition, Restrictions on Land Use and Involuntary Resettlement.

All land acquisition activities have either been completed or are ongoing, with supporting documentation such as title deeds, council decisions, and allocation letters included in the annexes and referenced throughout the report.

Public Land:

- Parcels owned by the Kayseri Metropolitan Municipality, Melikgazi Municipality and the Treasury (including those designated as roads or not registered in the land registry) have been allocated to the project in accordance with Articles 11, 15, and 16 of the Zoning Law No. 3194. Land use permissions for road areas were completed before the start of construction (see Annex C).
- A parcel designated as a road without a parcel number (N/A) has been included in the list of affected properties, and an official allocation letter from the Melikgazi Municipality is available (see Annex C).

Privately-owned Parcels:

- Four privately owned parcels (664/181, 664/178, 664/179, and 664/176) have been subject to partial acquisition, limited to sidewalks and common use areas outside the apartment buildings. These acquisitions were carried out through partial expropriation established under Article 8 of Law No. 2942, and confirmation of payment has been obtained from the owners.
- Land acquisition processes for all affected parcels, including parcels 664/181, 664/176, 664/178, and 664/179, have been completed in accordance with the applicable procedures. No further acquisitions are pending.

A table summarizing all affected parcels—including district, plot/parcel number, ownership type, registry classification, actual use, acquisition method, and status—is provided in Table 2-10.

The parcel-based visualizations appended below illustrate the approximate locations of the parcels affected by the project (see Figure 3-6 and Figure 3-7). However, due to the completion of road dedication (procedures, these parcel boundaries are no longer active or officially in use. Therefore, the figures serve only to indicate the general location and alignment of the affected areas within the project footprint and do not reflect current cadastral status.



Figure 3-6 Affected Parcels (K-1 and K-2 Junction Points)



Figure 3-7 Affected Parcels (K-3 Junction Point)

Off-Site Facilities:

- A temporary worker accommodation facility is planned on land owned by the Kayseri Metropolitan Municipality, designated as a public park in the zoning plan and not registered with a parcel number. Temporary land-use permission will be obtained from the Municipality prior to construction. The site is not currently in active use, and no objections have been reported.

3.5. Permitting Status

Status of permits, licenses, and approvals required to be in place before the start of construction is given below and presented in Annex B.

The institutional opinions and permits obtained under the subproject are listed below table;

Table 3-3 Status of Permits for the Construction Phase

Permit, License, Approval	Status (In place, Not in place)	Remarks/ Notes
EIA Decision	In place	An official letter of exemption dated 02.10.2024 and numbered E-27332451-220.03-10597815 has been issued by the Kayseri Provincial Directorate of Environment, Urbanization and Climate Change.
Opinion letter of the 6th Regional Directorate of Highways	In place	A positive opinion letter has been issued by the 6th Regional Directorate of the General Directorate of Highways with the correspondence dated 11.12.2024 and numbered E.29825892-000/1694137
DSI - General Directorate of State Hydraulic Works Opinion letter	In place	The official letter dated 30.12.2024 with reference number E-81675414-622.02-5403619 contains the institution's positive opinion.
Kayseri Regional Board of Protection of Cultural Heritage - Positive opinion	In place	The decision numbered 8324 and dated 19.12.2024 by the Kayseri Regional Council for the Protection of Cultural Properties states that the part of the Kartal Intersection and Connecting Roads Project affecting the protected area of registered structures has been deemed appropriate. The decision outlines that the project is to be carried out under the supervision of relevant institutions with necessary precautions, and specifies procedures in case of any archaeological findings during implementation. The decision numbered 8380 and dated 02.01.2025 by the Kayseri Regional Council for the Protection of Cultural Properties states that the proposed land division and road dedication procedures for the parcels containing the 'Vocational High School Foundry Workshop' and 'B-Block Machine Drawing Workshop' in Hunat Neighborhood, Melikgazi district, are deemed compliant under Law No. 2863. The decision requires that upon completion of cadastral and title deed procedures, a note indicating 'Group I Cultural Property Requiring Protection' be added to the relevant land registry records, and the results be reported to the Council.
Kayseri Water and Sewerage Administration Opinion Letter	In place	The official letter dated 09.12.2024 and referenced E-58535219-622-2024-235/30688 was transmitted to Kayseri Water and Sewerage Administration The letter dated 30.06.2025 and numbered E-79554265-755.01-68757, issued by the Kayseri Metropolitan Municipality Water and Sewerage Administration General Directorate, Department of Planning and Project, states that the infrastructure projects related to Kartal Junction and its connection roads have been technically reviewed by their relevant personnel, and no objections have been identified on their part.
Permit for Temporary Road Construction in Recep Tayyip Erdoğan National Garden	In place	Within scope of the Subproject, a temporary road route to be used during the construction period was planned to pass through land belonging to the Kayseri Provincial Mufti's Office. In this context, an official application was submitted to the Mufti's Office on 20.06.2025, via correspondence numbered E-26242767-622.03-2025-62/15618.

		In response, the Kayseri Provincial Mufti's Office, by its letter dated 23.06.2025 and numbered E-35109208-800-6466804, stated that there was no objection to the use of the mentioned temporary route.
Quarry Use Permit	Final confirmation, including permits and access routes, will be provided once the subcontractor is appointed	In the relevant section of the report, it is stated that there are approximately 20 licensed quarries located in the Gürpınar and Kamber regions. These areas generally produce limestone and andesite, which are suitable for use in infrastructure works. It is foreseen that the contractor, who will carry out the work under its responsibility, will procure materials from these licensed quarries. The quality of the material from the selected quarry, its suitability for the intended work, and the licenses issued by the General Directorate of Mining and Petroleum Affairs under the Ministry of Energy and Natural Resources will be inspected by the supervising consultant assigned by the administration and responsible for the construction works.
Dump Site Utilization Permit	To Be Obtained By Contractor – Site Secured	The designated Yılanlı Dump Site has already been leased by the Municipality from the Directorate of Forestry (Annex B). Following the conclusion of the tender process and the signing of the contract with the contractor, the contractor shall apply to the Kayseri Metropolitan Municipality Directorate of Climate Change and Zero Waste, Excavation Branch, with the volume calculations approved by the Municipality. Upon submission of the license plate numbers of the trucks equipped with GPS and integrated into the Municipality's excavation tracking system, the contractor becomes authorized to commence excavation activities.
Ministry of Agriculture and Forestry – Land Conversion Permit	Not required	There are three parcels, although technically registered as agricultural land, are currently used as roads and are included in the zoning plans. The Sub-borrower informed in June 2025 ILBANK that since these parcels are already designated for road use in the plans and have been officially deregistered from the title deed, no additional permits from the Ministry of Agriculture and Forestry are required

3.6. Stakeholder Engagement

Stakeholder engagement activities for the subproject have been actively carried out since the preparation phase, ensuring that all relevant parties within the subproject's area of influence are included in the process. As part of preparing the Stakeholder Engagement Plan and Environmental and Social Management Plan, POSEIDON conducted early consultations with public authorities, mukhtars, and local stakeholders. These consultations shared information about the subproject's location, objectives, potential impacts, and land acquisition process.

On 12 February 2025, a field visit was made, and face-to-face meetings were held with mukhtars of Tacettinveli, Gültepe, and Hunat neighborhoods within a 500-meter buffer zone around the subproject corridor. Phone interviews were also conducted with mukhtars of Erenköy (27 February 2025), Battalgazi (26 March 2025), and Esenyurt (14 May 2025).

On the same day, 12 February 2025, meetings were held with institutional and commercial stakeholders such as the Principal of Merkez Vocational and Technical Anatolian High School, the management of Recep Tayyip Erdoğan National Garden, Murat Kantarcı Science and Art Center, and local businesses around the intersection area including Duru Butcher, Şahmar Rent A Car, Şahmar Patisserie, Altuntaş Textile, and Mega Market. Additionally, a phone interview with Anadolu College Primary and Secondary School management was held on 27 March 2025 to share subproject information and collect feedback.

During the site visit conducted, face-to-face meetings were held with 13 individual landowners on 12 February 2025, including owners of four parcels formed by subdivision. Between 24 February and 28 March 2025, 15 more landowners participated in telephone interviews. A total of 83 individual landowners affected by the subproject were identified and compensated in accordance with legal requirements (see Table 3-5).

Additionally, Kayseri Metropolitan Municipality conducted face-to-face meetings with local businesses affected by the subproject on 19 June 2025. Businesses included Öz Auto Tire, Öz Men's Hairdresser Salon, Furkan Trade, Aras Cargo, Son Auto Tire, Sevinçer Steak Tartar A la turca, Aktam Tire, Sofa Curtain, Fat Kaplan, Mega Market, Vizyon Construction, Karatercan/Namizen Construction, Bağdat Pick/Knife, and Büyükşimşitçi Meat. The subproject's environmental and social impacts, planned activities, and potential risks were shared during these meetings. Feedback from stakeholders was recorded and integrated into the subproject's design and management (see Table 3-4 and Annex N).

In consultations with local businesses and small enterprises around the Kartal Junction and its access roads, the need to reduce traffic congestion and address temporary negative impacts such as dust, noise, and limited access during construction were discussed. Stakeholders requested regular information updates and effective mitigation measures from the municipality.

On 2 February 2025, a press conference was held by Kayseri Metropolitan Municipality, and on 18 June 2025, a City Council meeting was also conducted by the Municipality with the same objective of informing and engaging stakeholders. The City Council meeting was attended by 14 representatives of public institutions, 22 mukhtars, 5 university representatives, 17 representatives from chambers affiliated with TMMOB, 16 professional chamber representatives, 63 civil society organizations, and 6 political party representatives (see Annex O).

The importance of improving stakeholder engagement effectiveness and diversifying communication methods was emphasized. Special attention was given to ensure small businesses and local residents are informed at all subproject stages and that direct communication channels remain open. The scope and methods of stakeholder engagement activities are detailed in the SEP document, ensuring transparent communication with all relevant parties.

In summary, the stakeholder engagement process for the subproject is comprehensive and ongoing, aiming to reduce subproject impacts, increase stakeholder satisfaction, and support the sustainability of the subproject. Before the construction works started, additional stakeholder engagement activities will be conducted in the scope of future stakeholder activities by Kayseri Metropolitan Municipality and contractors

Table 3-4 Stakeholder Information Activities Conducted by Kayseri Metropolitan Municipality

Associated ILBANK Project: Türkiye Climate and Disaster Resilient Cities Project		Ref. No	Date of Engagement	Place	Subproject Phase	Type of Stakeholder	Information on Stakeholder Engaged With / Consulted	Individual or Group Engagement	Number of People Engaged with / Consulted	Engagement Method	Engagement / Consultation Details	Follow-up Action Required
Associated ILBANK Subproject: Kartal Intersection and Link Roads Construction Project		1	19.06.2025	Öz Oto Lastik	Pre-Construction	Shop Owner	Ali Çetin Karakılıç	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners.

												Monitor stakeholder concerns and report.
		2	19.06.2025	Salon Ciz Etnik Kadro	Pre-Construction	Shop Owner	Mustafa Tunahan Argın	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder

												concerns and report
		3	19.06.2025	Furkan Ticaret	Pre-Construction	Shop Owner	Mustafa Nalbantoğlu	Individual	1	Face-to-face meeting	<p>Project details explained.</p> <p>One lane to be left for shops during construction phase.</p>	<p>Follow-up on traffic management plan during construction.</p> <p>Regular updates to shop owners on construction schedule.</p> <p>Implement dust and noise control measures.</p> <p>Coordinate access arrangements with shop owners.</p> <p>Monitor stakeholder concerns and report</p>

		4	19.06.2025	Aras Cargo	Pre-Construction	Shop Owner		Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		5	19.06.2025	Son Oto Lastik	Pre-Construction	Shop Owner	Seyit Sarisev	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops	Follow-up on traffic management

											during construction phase.	plan during construction. Regular updates to shop owners on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		6	19.06.2025	Şirinçe Köfte Çiğ	Pre-Construction	Shop Owner	Erkan Mihçi	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during	Follow-up on traffic management plan during construction.

											construction phase.	Regular updates to shop owners on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		7	19.06.2025	Arasoy Lastik	Pre-Construction	Shop Owner	Feyzullah Arısoy	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners on

												<p>construction schedule.</p> <p>Implement dust and noise control measures.</p> <p>Coordinate access arrangements with shop owners.</p> <p>Monitor stakeholder concerns and report</p>
		8	19.06.2025	Sofa Curtain	Pre-Construction	Shop Owner	İrfan Özdemir	Individual	1	Face-to-face meeting	<p>Project details explained.</p> <p>One lane to be left for shops during construction phase.</p>	<p>Follow-up on traffic management plan during construction.</p> <p>Regular updates to shop owners on construction schedule.</p>

												Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		9	19.06.2025	Samsun Kaplan	Pre-Construction	Shop Owner	Fatih Kaplan	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Shop owner stated he will move his shop.
		10	19.06.2025	Mega Market	Pre-Construction	Shop Owner	Ahmet Berk	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners

											on construction schedule. Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		11	19.06.2025	Vizyon Construction/Jumbo	Pre-Construction	Shop Owner	Mehmet Altuntaş	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase. Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule.

												Implement dust and noise control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		12	19.06.2025	Kazımercan Namiken Taş	Pre-Construction	Shop Owner	Mehmet Kazımercan	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase.	Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule. Implement dust and noise

												control measures. Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
		13	19.06.2025	Bagdat Pick	Pre-Construction	Shop Owner	Ahmet Bacanak	Individual	1	Face-to-face meeting	Project details explained. One lane to be left for shops during construction phase. Implement dust and noise control measures.	Follow-up on traffic management plan during construction. Regular updates to shop owners on construction schedule.

												Coordinate access arrangements with shop owners. Monitor stakeholder concerns and report
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Table 3-5 Stakeholder Consultations by POSEIDON

Stakeholder	Interviewee	Interview Date and Place	Remarks from the Interviews
Local Institution	Merkez Vocational and Technical Anatolian High School	12.02.2025 School Administration Office	A school near the K-1 Junction Point expressed concerns about restricted access to its entrance due to the subproject and asked whether alternative routes were possible. Information on the subproject and grievance mechanisms was provided.
Local Institution	Management of Recep Tayyip Erdoğan National Garden	12.02.2025 Management Office	Recep Tayyip Erdoğan National Garden of the KMM, located near the K-1 Junction Point, experiences heavy traffic during evening peak hours, weekends, and especially in the summer season. The subproject was considered beneficial for reducing traffic congestion and contributing to the national economy.
Local Institution	Murat Kantarcı Science and Art Center	12.02.2025 Center Administration Office	Center, located near the K-2 Junction Point, reported severe traffic congestion, particularly due to high student density and frequent parent visits. The subproject is considered necessary to improve traffic conditions in the area.
Local Institution	Anadolu College Primary and Secondary School	27.03.2025 Phone Interview	The school near the K-3 Junction Point considered the subproject essential due to heavy traffic. It was noted that students often arrive late as classes start at 9:00 AM and traffic delays affect school transportation. In addition to concerns about existing traffic congestion, the school also noted the importance of ensuring student safety during the construction phase. Potential risks related to increased construction traffic and restricted pedestrian access were acknowledged. It was suggested that necessary safety measures, such as dedicated pedestrian paths and clear signage near the school, be implemented to minimize these risks.
Local Businesses	Mega Market	12.02.2025 Market	Mega Market, located near the K-2 Junction Point, considered the subproject necessary due to traffic congestion. While concerns about dust and noise were raised, no livelihood-related concerns were expressed during the consultation. Although no specific livelihood concerns were raised by Mega Market, the risk of temporary access restrictions during construction activities was acknowledged. Site-specific mitigation

Stakeholder	Interviewee	Interview Date and Place	Remarks from the Interviews
			measures such as signage, alternative pedestrian paths, and temporary access arrangements will be developed in consultation with the municipality to ensure continued accessibility for customers. These measures are reflected under the Community Health and Safety section of the ESMP.
Local Businesses	Şahmar Rent A Car	12.02.2025 Shop	Şahmar Rent A Car, located near the K-3 Junction Point, considered the subproject not entirely necessary except during peak hours. Concerns were raised about construction-related dust and noise, and information on mitigation measures was provided.
Local Businesses	Şahmar Patisserie	12.02.2025 Shop	Şahmar Patisserie, located near the K-3 Junction Point, stated that traffic congestion in the area is very high and that road access is particularly limited for students. The subproject is considered necessary; however, concerns were raised regarding potential dust and noise impacts during the construction phase.
Local Businesses	Duru Butcher	12.02.2025 Shop	Duru Butcher, located near the K-3 Junction Point, noted heavy traffic congestion especially after 5 PM. While there were concerns about dust and noise during construction, these were not seen as long-term issues, and the subproject was viewed positively overall.
Local Businesses	Altuntaş Textile	12.02.2025 Shop	Altuntaş Tekstil, located around the K-2 Junction Point, stated that it had directly observed the traffic congestion in the area and considered the subproject necessary. However, it emphasized the importance of ensuring proper information disclosure regarding the subproject.
Local Community	Private Landowners (Parcels 664/176, 664/178, 664/179, 664/181)	12.02.2025 – 28.03.2025 / Face-to-face and Telephone Interviews	Partial expropriation was carried out directly by the Kayseri Metropolitan Municipality in accordance with Law No. 2942 Article 8 of the Turkish Civil Code. As a result of the subdivision (ifraz) process, four privately owned parcels (664/176, 664/178, 664/179, and 664/181) were affected, with a total of 83 shareholders. However, during the preparation of the Stakeholder Engagement Plan, POSEIDON conducted meetings with 28 shareholders. The purpose of these interviews was to confirm compensation status and collect feedback. All consulted shareholders confirmed that they had received full compensation and that no adverse impacts on their livelihoods had occurred. Further details are provided in Section 3.4 of the ESMP.
Local Community	Mukhtar of Gültepe Neighborhood	12.02.2025 Mukhtar's Office	The mukhtar indicated that the neighborhood is experiencing inward migration due to employment opportunities and emphasized that the subproject is necessary given the high population density. No objections were raised.
Local Community	Mukhtar of Hunat Neighborhood	12.02.2025 Mukhtar's Office	The mukhtar stated that the subproject is necessary due to traffic congestion in the area and expressed satisfaction with the communication channels of Kayseri Metropolitan Municipality.
Local Community	Mukhtar of Tacettinveli Neighborhood	12.02.2025 Mukhtar's Office	The mukhtar stated that the subproject is needed in the neighborhood due to severe traffic congestion, especially during evening peak hours. No objections or complaints were raised regarding the subproject
Local Community	Mukhtar of Battalgazi Neighborhood	26.03.2025 Telephone Interview	The mukhtar stated that the subproject is necessary due to high population and traffic density, and recommended prioritizing local residents for employment.
Local Community	Mukhtar of Erenköy Neighborhood	26.03.2025 Telephone Interview	The subproject is considered necessary by the mukhtar. While there were concerns about temporary road closures during implementation, it was stated that these could be mitigated through the use of alternative routes.
Local Community	Mukhtar of Esenyurt Neighborhood	14.05.2025 Telephone Interview	It is stated that the population density in the neighborhood has increased in the last 5 years due to job opportunities. For this reason, traffic density has also increased. The subproject is considered necessary. Negative impacts such as traffic, dust and noise that may occur during the construction phase of the subproject

Stakeholder	Interviewee	Interview Date and Place	Remarks from the Interviews
			are expected, but it has been emphasized that these impacts are not permanent and the benefits of the subproject are high.

4. ESMP MATRIX: RISK AND IMPACTS, MITIGATION AND MONITORING

As the Subproject involves both construction and operation activities, the ESMP comprises two components as follows:

- Construction ESMP Matrix
- Operation ESMP Matrix

The roles and responsibilities for implementing this ESMP are defined in Chapter 5. Also details regarding the composition, duties, and institutional arrangements of the Project Implementation Unit (PIU)—which will be responsible for ensuring the implementation of the ESMP—are provided in Section 5.1.

Implementation arrangements for the ESMP are outlined in Section 1.5.

The Contractor's E&S management plans and procedures, which support the implementation of the E&S assessment documents, are listed in Section 4.5.

4.1.E&S Risk and Impacts of the Subproject

This section outlines the potential E&S impacts and risks that may arise from Subproject activities during the construction and operation phases.

The typical Subproject activities are broadly categorized as follows:

- Construction phase
- Operation phase

General, cross-cutting potential environmental impacts that are anticipated to occur across all aspects of the Subproject are summarized below.

4.1.1. Environmental Risks and Impacts

4.1.1.1. Soil Erosion, Loss and Contamination

Construction Phase

The major impact on soil could be the potential topsoil loss at the footprints of the Subproject where excavation will be carried out. However, this impact is expected to be low specific to the Subproject as the Subproject area will be located on a currently actively used junction. Since the area has already undergone surface modification and does not contain undisturbed natural soil layers, the risk of topsoil loss is significantly reduced. Additionally, the construction footprint is limited to existing road infrastructure, minimizing further land disturbance. Excavated soil may be exposed to agents of erosion, mostly water and wind. Due to the involvement of heavy machinery during the construction phase, soil contamination may be seen due to accidental oil leakages in the areas. The impacts on soil will be minimal and localized in the areas where construction will take place only.

The potential impacts of the Subproject on soil environment are summarized below:

- Soil compaction as a result of topsoil stripping, levelling, excavation and filling activities, work of construction machinery,
- Mixing of soil layers as a result of excavation and filling activities,
- Soil contamination as a result of oil or fuel leaks or spillage that may result from incidents and unexpected events,
- Soil pollution which may occur in case of uncontrolled storage or disposal of solid and/or liquid wastes to be generated within the scope of the Subproject.

Operation Phase

- Landslide and geotechnic related risks,
- Soil contamination risk due to spill/leakage resulting from traffic accidents and during the repair/maintenance works and housekeeping of the road pavement and other highway components, and
- Soil disturbance and erosion risk due to extreme weather conditions and improperly functioning erosion and sediment control structures.

4.1.1.2. Impacts on Biodiversity

Due to the nature of the subproject, construction activities will be carried out on the existing road and junction infrastructure, and no direct intervention will occur in natural or critical habitats. In line with ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), it has been determined through assessments that there are no endemic, rare, sensitive species, critical habitats, or ecologically significant systems requiring conservation priority within the Project's Area of Influence (AoI). The area is located within a landscape exposed to urban density, fragmented, and subject to anthropogenic pressure, with low ecological functionality in terms of biodiversity.

Although the subproject is primarily located within the existing road corridor, the trees currently located within the working corridor will be relocated to a different location using the transplantation method. These transplantation activities must be planned and carried out under the supervision of relevant biodiversity experts. An E&S assessment is required to identify and address risks on habitats. The E&S baseline studies are required to identify the species to be affected and detail the transplantation process as part of the mitigation measures.

Construction Phase

Construction will take place on the existing road and no ecosystem will be disturbed.

The risks that are likely to occur within the scope of the subproject are as follows:

- In existing structures and facilities, dust formation poses a risk.

The area designated for work contains approximately 460 trees, primarily coniferous species such as spruce and black pine. The trees will be uprooted using a tree removal machine and replanted in the nation's garden.

The most significant intervention during the construction phase will be the removal and relocation of approximately 460 coniferous trees (spruce and black pine) located within the project area. This process will be carried out using specialized equipment (tree removal and transplanting machines) without damaging the trees, ensuring the preservation of both above-ground biomass and root systems. In addition, under ESS6, the possibility that these trees may serve as nesting areas for birds will be taken into consideration. In this context:

- Tree removal operations will be scheduled outside of the breeding/nesting season (typically between March and July),
- A field inspection will be conducted by a qualified specialist (Veterinarian) within the municipality prior to removal to check for the presence of active nests,
- If active nests are identified, the removal of trees will be postponed or protective measures will be applied in accordance with the ecological needs of the bird species involved.

The main biodiversity-related risks during the construction phase are associated with dust generation and potential deficiencies in waste management. These risks will be effectively controlled through the measures outlined in the existing Environmental and Social Management Plan (ESMP), including dust suppression, proper waste segregation, and disposal in accordance with applicable regulations.

Operation Phase

No ecosystems are expected to be affected during the operation phase.

During the operational phase, risks to biodiversity will be limited. Waste management should be implemented, speed limits should be strictly enforced to prevent accidents and dust generation should be controlled.

In the operation phase, considering the current land use characteristics and the limited ecological sensitivity of the area, no permanent or significant biodiversity impacts are expected. During this stage:

- Speed limits will be enforced to minimize risks associated with vehicle-generated dust and wildlife crossings,
- Wastewater and solid waste will be managed in leak-proof systems to prevent environmental contamination,
- Transplanted trees will be monitored to assess survival rates and overall success.

In this context, based on the current level of biodiversity risk associated with the subproject, the preparation of a separate Biodiversity Management Plan (BMP) under ESS6 is not deemed necessary. However, project activities that could potentially impact biodiversity directly or indirectly have been addressed within the relevant sections of the Environmental and Social Management Plan (ESMP) and associated mitigation matrices, and the required measures have been integrated into the overall project management system.

4.1.1.3. Dust and Exhaust Gas Emission

Construction Phase

The risks that may occur within the scope of subproject works are as follows:

- Decrease in air quality due to dust generation from excavation, soil movement, and material handling activities,
- Emission of exhaust gases such as NO_x, SO_x, CO, and particulate matter from construction machinery and vehicle movement.

Operation Phase

- Decrease in air quality due to the emission of gaseous pollutants (NO_x, SO_x, CO, unburned hydrocarbons etc.) resulting from highway traffic, and greenhouse gas emissions resulting from road traffic.

4.1.1.4. Climate Change and Greenhouse Gas (GHG) Emissions

Construction Phase

- Greenhouse gas emissions (primarily CO₂) resulting from the fuel consumption of construction machinery and transportation vehicles used during the construction phase. in air quality due to the emissions originated from the subproject activities, movement of the construction vehicles,

Operation Phase

- Greenhouse gas emissions (mainly CO₂) due to continuous vehicle movement and increased traffic volume on the operational road network, contributing to long-term climate change impacts.

4.1.1.5. Environmental Noise

Construction Phase

The table showing the sound power levels of the construction equipment has been moved to the Annex M of the ESMP. Detailed noise calculation inputs and parameters—including source-receptor distance, frequency components, equipment count, and meteorological assumptions (e.g., 65% relative humidity)—are also provided in the attachment.

The equivalent continuous sound level (Leq) at 45 meters from the construction site, where the nearest commercial receptor is located, was calculated as **70.6 dB** using standard propagation equations and spectral summation across key octave bands (500 Hz–4000 Hz).

Typical background values for similar urban areas have been considered in the assessment. Specifically, average ambient noise levels in urban mixed-use zones (residential–commercial) are typically in the range of **55–60 dB** during daytime according to the Regulation on Management of Environmental Noise (Official Gazette No: 32029, dated 30 November 2022).. Therefore, the calculated noise level of 70.6 dB represents an increase of approximately 10–15 dB over baseline, which is considered perceptible and potentially disturbing.

Accordingly, mitigation measures (e.g., time restrictions, noise barriers, equipment maintenance) are included in the ESMP. The assessment has been conducted in line with both the national Regulation on Environmental Noise Control and the relevant noise level thresholds provided in the World Bank Group’s Environmental, Health, and Safety (EHS) Guidelines. The EHS Guidelines recommend a daytime limit of 55 dB (outdoor residential areas) and 70 dB (industrial/commercial receptors), which have been considered in determining potential impacts and mitigation needs.

The sound power levels of the equipment to be used during the construction phase are given in Annex M.

The expected risk during the construction phase is as follows:

- Increase in noise levels and vibration due to the subproject activities

Operation Phase

Increase in noise levels and vibration due to increased traffic and especially in case of insufficient maintenance and repair works of the junction.

4.1.1.6. Impacts Associated with Water, Energy and Raw Materials Use

Construction Phase

It is foreseen that 80 people will work during construction activities. This figure refers to the core field workers directly involved in construction works. However, water consumption will occur due to the presence of all personnel on-site. There will be water consumption due to personnel in the field. When calculating the amount of water to be consumed by the 126 personnel who will

work within the scope of the subproject including technical staff, security, cleaning, and support personnel, the average daily amount of water per person is accepted as 228 L.²⁵

$$\begin{aligned}\text{Domestic Water Requirement} &= \text{average water consumption} \times \text{number of people} \\ &= 228 \text{ L} \times 126 \\ &= 28.72 \text{ m}^3/\text{day}\end{aligned}$$

On the other hand, within the scope of the Subproject, roads in the Subproject area will be cleaned regularly and all measures (irrigation, sweeping, etc.) will be taken against dusting in accordance with the requirements of Regulation on Control of Industrial Air Pollution. Within the scope of the construction works, sprinkling works will be carried out with a watering truck to prevent dusting. Assuming that the backhoe has a water spraying capacity of 1,500 L/min, the amount of water to be used during transportation within the scope of the Subproject is calculated as follows.

When the speed of the land rover is 30 km/h, the land rover covers a distance of 30 km in 1 hour (60 minutes).

The distance between the area where the lettering soil within the boundaries of the Subproject site will be dumped on-site and the area where the construction activity will take place is 10 km. Thus, sprinkling will be carried out over a total area of 20 km round-trip.

Since the irrigation vehicle covers a distance of 30 km in 60 minutes, it will take 20 minutes to travel 10 km;

$$= 20 \text{ min} \times 1,500 \text{ L/min} = 30,000 \text{ L} = 30 \text{ m}^3.$$

Assuming that sprinkler will be done 2 times a day;

$$= 30 \text{ m}^3 \times 2 \text{ times} = 60 \text{ m}^3.$$

As it's explained in Section 2.7.1.8, field observations and satellite imagery confirm that there are no natural or artificial surface water bodies—such as rivers, streams, ponds, or wetlands—within the defined Areas of Influence (AoIs) of the subproject. The subproject site is not situated in or near any water conservation zone, floodplain, or aquatic habitat. Since no direct interaction with surface water systems will occur, construction activities are not expected to impact such environments. Stormwater and surface runoff will be controlled through the existing urban drainage infrastructure in the subproject area.

The subproject site is located in an urban area that is already largely developed, and there are no natural surface water bodies (rivers, lakes, streams) in the immediate vicinity of the Subproject footprint that would be directly impacted by construction activities. However, artificial drainage channels and urban stormwater systems exist within the subproject area, and mismanagement of construction runoff, hazardous material spills, or accidental discharges could potentially contaminate these systems, especially during excavation and roadwork phases. Although no groundwater wells are located within the direct impact zone, subproject excavation activities may temporarily expose shallow groundwater levels, especially during tunneling or underpass construction. Therefore, appropriate drainage and dewatering measures must be implemented to prevent contamination. Fuel storage, machinery maintenance, and material stockpiles pose potential risks of spills or leachate that could migrate to groundwater if not properly contained and managed on-site.

Within the scope of the Subproject, water consumption by the personnel and water consumption in the Subproject construction site to prevent dusting is expected. Since water consumption from personnel will be supplied from the network (and bottled water for drinking water purposes), it is not expected to have any impact on any water source.

Excavated soil and construction wastes will not be allowed to be disposed of in or near any water source. These materials will be loaded onto trucks, covered, and transported to licensed disposal sites or temporary storage areas designated by the Municipality. After the material is loaded on trucks, it will be covered and transported.

Currently, the reuse of excavated material within the scope of the subproject is not planned. However, if suitable conditions arise in the future, the potential for reuse of the excavated soil will be evaluated through laboratory and field tests, and if found appropriate, it may be used (e.g., as fill material or in landscaping works).

Operation Phase

- Increased surface runoff due to impermeable road, and
- Contamination of groundwaters due to the repair/maintenance/housekeeping operations; accidental spillage of chemicals resulting from traffic/transportation; surface runoff containing routine deposits and spills from the ways

4.1.1.7. Waste

Construction Phase

²⁵ <https://data.tuik.gov.tr/bulten/index?p=su-ve-atiksu-istatistikleri-2020-37197>

During the construction phase, waste generation from construction activities and personnel is expected.

The types of waste expected to be generated during the construction phase are as follows:

- Packaging waste,
- Medical waste,
- Waste batteries and accumulators,
- End-of-life tires,
- Construction waste,
- Excess excavation material, and
- Domestic solid waste,

Disposal of the excavated material to the dumping site will be ensured. On the other hand, domestic solid wastes will be collected in municipal trash containers and collected by municipal waste trucks. Other types of waste will be disposed of by licensed companies.

- Potential impacts of hazardous and non-hazardous solid wastes due to poor waste management, resulting in environmental pollution and occupational and community related health and safety risks, and
- Additional load on the waste management facilities around the subproject area in the absence of best management practices and effective waste management.

Operation Phase

Including both hazardous and non-hazardous categories waste types are as follows:

- Non-hazardous solid wastes, such as:

- Roadside litter and debris (e.g., paper, plastic, food containers)
- Packaging waste from routine maintenance activities (e.g., cardboard, plastic wrap)
- Dust and sediment collected from street sweeping and surface cleaning

-Hazardous wastes, including:

- Used oils, lubricants, and hydraulic fluids from vehicle and machinery maintenance
- Waste fuel, contaminated absorbents, and oily rags
- Spent filters, batteries, and fluorescent lighting
- Waste paints, solvents, and cleaning chemicals from minor repair and maintenance works

Potential impacts of hazardous and non-hazardous solid wastes generated from maintenance, repair and housekeeping of the ways due to poor waste management, resulting in environmental pollution and occupational and community related health and safety risks, and additional load on the waste management facilities around the subproject area in the absence of best management practices and effective waste management.

4.1.1.8. Impacts Associated with Asbestos Containing Materials

There is potential for asbestos-containing materials (ACMs) during the construction phase of the Subproject, particularly in connection with the relocation or dismantling of existing underground utility infrastructure. This risk is specifically anticipated in areas where old water and sewer pipelines are located, as some of these pipelines were historically constructed using asbestos cement materials. Official correspondence from the Water and Sewerage Directorate confirms the presence of active asbestos-containing pipelines at Location K3 and decommissioned asbestos lines at Location K2 (see Annex A) Therefore, ACM-related risks are associated with works planned in these areas where potential exposure may occur. The relevant risks are listed below.;

- Occupational health risks for workers due to inhalation of airborne asbestos fibers during the removal or handling of ACMs.
- Public health risks if asbestos fibers are released into surrounding environments (e.g., near residential areas) without proper containment.
- Environmental risks if asbestos waste is not properly handled, packaged, transported, or disposed of in designated licensed facilities.
- Compliance and liability risks if national regulations (e.g., Health And Safety Measures Concerning The Work With Asbestos) and international standards (e.g., IFC/WB EHS Guidelines) are not followed.

4.1.2. Social Risks and Impacts

Under this section, social impacts that may occur during construction and operation phases are described under the relevant headings.

4.1.2.1. Labor and Working Conditions

Construction Phase

Approximately 126 workers (including 37 technical staff and 89 field workers) will be employed during the construction phase. The Subproject's Code of Conduct (see Annex J) guides worker behavior, supports non-discrimination, harassment prevention, and gender-based violence mitigation measures during construction and operation phases. A Labor Management Plan (LMP) and Contractor Management Plan (CMP) have been developed to ensure safe, fair, and inclusive labor conditions. The ESMP Matrix includes all mitigation measures such as:

- Transparent communication of employment terms,
- Prohibition of child and forced labor,
- Equal opportunity in recruitment and employment,
- Prevention of discrimination and harassment,
- Provision of training on workers' rights and prevention of GBVH and SEA/SH
- Accessible worker grievance mechanism.

In addition, a worker accommodation site will be established on publicly owned, currently unused municipal land. While no significant adverse impacts on surrounding communities are expected due to the site's location, site-specific measures have been developed and are included in the ESMP Matrix.

Operation Phase

- The workforce in the operation phase is expected to be minimal. Subproject employees will receive updated training on the ESMP and relevant sub-plans. Social compliance, GBVH prevention, and OHS training will be renewed periodically. Employees will be informed of and have access to the Grievance Mechanism (GM), which remains active during the operation phase. The Sub-borrower shall monitor the working conditions and grievance records on a monthly and quarterly basis and report to ILBANK.

4.1.2.2. Occupational Health and Safety (OHS)

The Occupational Health and Safety (OHS) Plan and the Emergency Preparedness and Response Plan will be prepared and finalized prior to site mobilization. These plans will be developed in accordance with national legislation and the World Bank Environmental and Social Standards.

Construction Phase

Working at Height: Working at height is one of the leading causes of falls and slips. In the context of the Subproject, working at height may occur during the construction of elevated roads, overpasses, tunnel entrances, retaining walls, installation of signage and lighting systems, assembly of steel structures, scaffolding works, and in areas with level differences caused by excavation activities.

Moving Objects: The movement of cranes, machinery, and other heavy equipment increases the risk of striking hazards, crushing, or entrapment for workers. In the context of the Subproject, this risk may arise during excavation and backfilling activities, crane operations for installing overpass components, tunnel construction, and internal material transport on site.

Slips and Trips: During construction activities, there is a risk of slipping and tripping due to liquids, dust, equipment, cables, or other slippery substances present on surfaces. In the context of the Subproject, this risk may be particularly present in excavation areas, temporary access routes, storage zones, and poorly lit sections of the site.

Noise, Vibration and Dust Exposure: The high levels of noise, vibration, and dust generated by construction machinery can have a negative impact on workers' hearing, respiratory health, and overall well-being. In the context of the Subproject, this risk may arise during excavation, concrete pouring, pavement cutting, underground construction with inadequate ventilation, and soil compaction works using vibratory machinery.

Material Handling: Lifting and transporting heavy materials can cause back injuries and musculoskeletal disorders. In the context of the Subproject, this risk may arise during reinforcement bar handling, formwork installation and removal, transportation of precast elements such as curbstones and manhole covers, and manual handling activities in confined tunnel areas.

Unplanned Collapse: The risk of unplanned collapse exists if temporary structural elements, formwork systems, or scaffolding are not adequately supported. Within the scope of the Subproject, this risk may arise in tunnel portal areas, deep excavation zones (e.g., retaining wall and infrastructure works), during the erection of formwork and scaffolding for overpass structures, and in the placement of columns and beams prior to the completion of the concrete curing process.

Electrical Hazards: Construction sites involve the intensive use of electrical equipment and temporary power supply systems, which significantly increases the likelihood of electrical incidents. These risks are mainly associated with the deterioration or damage of power distribution cables caused by construction machinery or site traffic, as well as unintentional contact with previously buried energized underground cables during excavation works. In addition, the unauthorized access of non-electrician personnel to temporary electrical panels or cable distribution areas presents further safety concerns. The use of handheld electrical tools that lack proper grounding, insulation, or maintenance, particularly when they are used in wet or confined environments, also increases the risk of electric shock or fire. These combined factors pose a serious threat to worker health and safety and require the implementation of strict electrical safety protocols and control measures. Such conditions may lead to electric shocks or fire incidents, posing a significant threat to worker health and safety.

Work Accidents, Injuries and Occupational Diseases: The cumulative effect of multiple uncontrolled risks during construction activities significantly increases the likelihood of workplace accidents, injuries, and occupational diseases. These risks may originate from various sources including but not limited to working at height, falling objects, welding operations, confined spaces, chemical exposure, and improper lifting or handling procedures. If not effectively identified and mitigated, these hazards can result in immediate injuries such as falls, burns, or crush incidents, as well as long-term health issues including respiratory conditions, musculoskeletal disorders, or occupational cancers. This highlights the importance of integrated risk management across all work areas.

Unhygienic or Unhealthy Living Conditions: Inadequate hygiene and poor sanitation conditions in temporary worker accommodation areas can increase the risk of communicable diseases, respiratory infections, and other health-related issues. This risk is particularly relevant in construction sites where workers are housed in dense living quarters with shared facilities such as toilets, showers, and dining areas. Uncontrolled waste management and lack of proper ventilation may further contribute to unsanitary conditions that endanger worker health.

Hazards Related to Falling Objects: Falling objects such as tools, equipment, or construction materials pose a serious safety risk, particularly in work environments involving multiple elevations. Within the scope of the Subproject, this risk may occur during beam and column installation in overpass construction, overhead works in pedestrian underpasses, the installation of lighting and signal systems, retaining wall construction near slopes, and during lifting operations where suspended loads may accidentally fall due to equipment failure, operator error, or improper rigging. The risk is further heightened in areas where simultaneous work is carried out at upper and lower levels, as tools or materials dropped from above can result in severe injuries, including head trauma, fractures, or fatalities for personnel working below.

Emergency Evacuation Challenges: In complex construction environments, restricted or confined work areas may significantly delay or obstruct emergency evacuation during incidents such as fire, collapse, or exposure to hazardous substances. Within the scope of the Subproject, this risk may arise in tunnel and pedestrian underpass construction zones, deep excavation areas near retaining walls, multi-level work platforms in overpass structures, and other locations with limited access routes. In such cases, the safe and timely evacuation of personnel can be critically compromised, increasing the likelihood of severe injuries or fatalities during emergencies.

High Tension Forces During Post-Tensioning Operations: Post-tensioning operations involve the application of extremely high tensile forces to steel tendons or bars, which can lead to sudden failure and uncontrolled whipping if the elements break or are not properly tensioned. In the context of the Subproject, this risk may arise during the construction of overpass structures, retaining walls, and other reinforced elements where post-tensioning systems are used. Such failures may result in severe injuries to workers within the proximity of the tensioning system, especially if the force is released unexpectedly.

Risks During Lifting Operations: Lifting operations involving cranes and other heavy machinery during construction activities present significant safety risks. These include uncontrolled load drops caused by overloading, mechanical failures, or operator errors; collisions with structures or personnel; crane overturning due to insufficient ground support; and crushing injuries. In the context of the Subproject, such risks may arise during beam and column positioning in overpass construction, lifting of formwork elements in retaining wall works, and material handling within confined tunnel or underpass areas. Operations conducted outside the operator's line of sight further increase the likelihood of communication failures, height-related accidents, and improper load placement that may result in structural damage or injury.

Confined Spaces: Confined spaces may form during excavation and underground construction works, presenting several hazards such as cave-ins, reduced oxygen levels, buildup of toxic gases, water ingress, and fire risks. In the context of the Subproject, such risks may occur particularly in pedestrian underpasses, tunnel portals, deep excavation pits for retaining walls, and narrow working shafts. These environments typically allow access through a single entry point and have limited ventilation, which can significantly hinder emergency evacuation and increase the likelihood of suffocation, fire-related injuries, or fatalities.

Welding and Hot Works: Welding and other hot work activities are frequently used during the construction of steel-reinforced components such as beams, columns, and rebar joints. In the context of the Subproject, these works are likely to occur in overpass structures, pedestrian underpasses, and retaining wall reinforcement. These operations pose several risks, including fire and explosion hazards, eye and skin burns caused by high temperatures or sparks, and the inhalation of toxic fumes generated during metalwork processes. In confined or poorly ventilated work zones, such as tunnels or narrow shafts, these activities may also reduce oxygen levels and increase the risk of asphyxiation or toxic gas exposure for workers.

Industrial Vehicle Driving and Site Traffic: Increased construction activity may lead to a higher volume of industrial vehicle traffic, both within the construction site and in nearby residential or urban roadways. This situation poses several risks, including collisions between vehicles and pedestrians, especially in areas where site access routes intersect with public roads or pathways. In the context of the Subproject, such risks are particularly relevant in overpass and underpass construction zones, tunnel entrances with limited visibility, and during the transport of heavy equipment or materials through confined or populated areas. Inadequate separation of vehicle and pedestrian flows may result in serious injuries or accidents.

Chemical Hazards: The use of chemical substances is common across various construction activities within the Subproject and is not limited to overpass construction. Chemicals such as solvents, adhesives, paints, fuels, concrete additives, welding fumes, exhaust gases, and similar substances may be encountered during works involving asphalt applications, structural assembly, ground improvement, painting, or fueling of equipment. These substances pose significant health and environmental risks, including respiratory problems, skin irritation, long-term toxicity, and flammability. Without proper handling and exposure controls, chemical-related hazards may seriously impact workers' health and site safety.

Asbestos-Containing Material (ACM) Removal: The removal of asbestos-containing materials (ACMs) presents significant occupational health and safety risks, primarily due to the inhalation of airborne asbestos fibers, which can cause severe respiratory diseases such as asbestosis, lung cancer, and mesothelioma. Within the scope of the Subproject, this risk may specifically arise during the relocation or dismantling of existing underground infrastructure. Official correspondence from the Water and Sewerage Directorate confirms the presence of active asbestos-containing pipelines at Location K3 and decommissioned asbestos lines at K2.

Operation Phase

After the completion of the multi-level junction construction, various maintenance, repair, cleaning, and landscaping activities will be carried out during the operational phase. During these activities, workers will face various hazards arising from traffic and environmental factors.

Risk of Vehicle Struck: Maintenance and cleaning activities are often carried out in areas with heavy traffic, posing a high risk of workers being struck by vehicles. This danger is especially heightened at intersection points where drivers experience limited visibility.

Traffic Noise and Stress: Personnel working in heavy traffic areas can be distracted by constant noise and vehicle movements, which can lead to accidents.

Adverse Weather Conditions: Weather conditions such as rain, snow or wind can cause risks such as slips, falls and restricted visibility, especially when working at height or during outdoor activities.

Inadequate Lighting: During work conducted at night or in dark areas such as tunnels, insufficient lighting may restrict workers' movements and make it more difficult for vehicle drivers to notice them.

Dust and Particulate Exposure: Dust and particles generated during road and intersection cleaning can affect the respiratory tract of workers. This risk is especially high for those with asthma or allergic conditions.

4.1.2.3. Community Health and Safety

Construction Phase

The following stakeholders are expected to be exposed to varying levels of impact due to the construction activities:

- Local Neighborhoods: Battalgazi, Tacettinveli, Hunat, and Esenyurt neighborhoods within the Area of Influence (AoI) may experience disruptions, particularly due to road closures, dust, noise, and vibration caused by construction activities. Temporary road closures will directly affect these neighborhoods, and pedestrian access will be rerouted as necessary.
- Sensitive Receptors (see Section Education and Health Services, Figure 2-18 and Figure 2-19): Several schools, health facilities, and businesses are located within or near the AoI and will be affected by the construction activities:
 - Educational Institutions: Mimar Sinan Vocational and Technical Anatolian High School (40m), Selçuklu Anatolian High School (80m), and Merkez Vocational and Technical Anatolian High School (200m) are close to the construction area. Increased risk of accidents near these schools due to construction traffic is anticipated.
 - Health Institutions: Hüma Hospital (180m), Acıbadem Kayseri Hospital (400m), and others may experience increased exposure to dust and noise, which could affect the health of patients and staff.
 - Local Businesses: Small businesses like Duru Butcher, Şahmar Rent A Car, and Altuntaş Textile may experience access restrictions and disruptions due to traffic diversions.

During construction, road closures will occur, and access to these sensitive receptors will be temporarily restricted. This will impact local residents, businesses, and institutions, but alternative routes and pedestrian pathways will be arranged to minimize disruptions.

The site access route from the construction camp will be directed towards Talas Boulevard, using the same corridor as the Kayseri Provincial Directorate of National Education, Mimar Sinan Vocational and Technical Anatolian High School, and Kayseri Melikgazi Guidance and Research Center. This shared use of access roads is expected to increase traffic volume along this sensitive route, which may raise safety concerns for pedestrians, especially school children, and vehicle users. To mitigate these risks, additional traffic management measures such as speed reduction zones near schools, enhanced signage, crossing guards during school hours, and dedicated pedestrian pathways will be implemented. These measures aim to protect vulnerable groups and reduce accident risks. Continuous monitoring and coordination with school administrations will ensure the effectiveness of these safety interventions.

To minimize the impact on these receptors, site-specific mitigation measures have been developed, including:

- Providing timely notifications to local communities about construction schedules and access changes through various channels (e.g., posters, announcements via local mukhtars).
- Ensuring that alternative routes for pedestrians and vehicles are safely in place during road closures.
- Implementing dust suppression and noise reduction measures to protect nearby schools, hospitals, and businesses from construction-related disturbances.

While the workforce influx will be minimal due to the urban nature of the project, training on Gender-Based Violence (GBVH), Harassment, and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) will be provided to workers to raise awareness and mitigate potential risks related to the workforce.

In case of emergencies, such as traffic accidents, fire, or damage to underground infrastructure, emergency protocols will be in place. Relevant communication procedures will ensure that local communities are notified of any emergencies through proper channels.

Operation Phase

Once the construction is complete and the intersection is operational, there will be increased traffic density and pedestrian movement. This may lead to increased risks of traffic accidents at the junction, especially at peak hours. Signage, traffic flow management, and emergency response plans will be implemented to address these risks.

Sensitive receptors such as schools, health facilities, and local businesses should continue to be monitored for any ongoing impacts related to traffic flow and pedestrian safety. The relevant measures for the impacts and mitigations measures on sensitive receptors regarding with traffic influencing the community health and safety are given in Section 4.1.2.4.

4.1.2.4. Traffic Safety

Construction Phase

- Traffic congestion: Vehicle density may increase due to road narrowing in the work area.
- Lack of guidance: Inadequate or faulty directional signs may cause drivers to take the wrong road.
- Alternative route problems: Failure to properly determine alternative routes may cause disruptions in transportation.
- Personnel working during construction activities carried out under relevant subproject components may be exposed to the risk of being hit by construction vehicles and heavy equipment operating within work zones that are closed to public traffic but active for internal site traffic.
- Lack of reflective clothing, helmets and other protective equipment may endanger the safety of workers.
- Increased traffic volumes are expected along the site access route shared with sensitive receptors, including educational institutions such as Mimar Sinan Vocational and Technical Anatolian High School and Kayseri Melikgazi Guidance and Research Center. This may raise risks of traffic incidents involving pedestrians, particularly school children. Therefore, specific traffic calming measures and enhanced signage will be implemented to mitigate these risks.
- Community Health and Safety: The locations marked in turquoise indicate sensitive receptors/ areas where construction activities will intersect with live traffic. Although construction works will also take place outside these specific points, the associated environmental impacts are expected to be minimal. The works at these sensitive locations will be confined within the existing road boundaries and limited to a single lane. Final works, including asphalt resurfacing and sidewalk rehabilitation, will be conducted in these single-lane sections towards the completion phase of construction. This final phase is expected to last no more than 10 days. During this period, the sections of the road where construction has already been completed will be reopened to traffic, ensuring uninterrupted access to the surrounding areas. It should be noted that this is a single-lane road with an approximate speed limit of 30 km/h. Additionally; construction activities at these sensitive points, as well as throughout the entire work area, will be carried out in full compliance with occupational health and safety (OHS) regulations. The perimeter of the construction site will be secured with barriers as part of the OSB Panel Construction Site Safety System. These locations are marked in the following figure.



Figure 4-1 Sensitive Receptors where construction activities will intersect with live traffic

During the construction phase of the Kartal Interchange, road closures will be implemented and existing traffic flow will be diverted to pre-determined alternative routes. Construction activities within the scope of the Subproject activities are planned to last 18 months. The traffic management plan has been prepared in detail to ensure minimum disruption for drivers and pedestrians and the following measures have been planned.

- During the construction period, intersections with two-phase signalization systems will be established at five different locations in the Project impact area. This arrangement will minimize traffic congestion by ensuring that traffic flow is directed in a regular and safe manner.
 - Alternative routes generally planned as one-way. In this way, traffic flow will be more regularized, vehicle density will be reduced and potential risks that drivers may face will be minimized.
 - Double lane traffic flow will be applied at certain points. This method will reduce traffic congestion and ensure faster and safer vehicle passage.
 - Road widening works will be carried out. This will increase traffic flow capacity in high density areas and prevent congestion.
 - Temporary roads have been created. These temporary roads will ensure traffic flow continuity, reduce waiting times for drivers and support safe driving conditions.
 - There will be a parking ban on alternative routes between 06.00 am and 20.00 pm. This arrangement will ensure that the roads are used at their maximum carrying capacity and prevent traffic disruption.
 - Necessary signage and traffic warning signs will be installed on all alternative routes and main roads. These signs will provide guidance for drivers and pedestrians, avoiding potential confusion.
 - In order to inform the public and drivers, announcements will be made through posters, brochures, billboard advertisements, and the websites of Kayseri Metropolitan and Municipalities of Melikgazi, Kocasinan and Talas (subproject construction activities are physically located in Melikgazi district but neighboring districts of Kocasinan and Talas may also experience indirect impacts such as increased traffic due to road closures, and therefore included in the public information measures).
 - . In addition, information brochures will be distributed to mukhtars' offices to ensure that residents are aware of traffic regulations. These information activities will contribute to the safe and smooth flow of traffic.
 - Additional measures will be taken to implement dynamic traffic management systems by regularly analyzing the density of alternative routes.
 - Temporary pedestrian paths will be created in K1 and K2 work areas during construction activities.
- Traffic police or municipal police teams will improve traffic safety by providing guidance support at critical points during peak hours.

Operation Phase

- Drainage problems: Insufficient water drainage can cause puddles and slippery ground in rainy weather.
- Road deformations: Potholes, deteriorations and line losses that may occur over time can make it difficult for drivers to control the road.
- Lighting deficiencies: Insufficient lighting during night driving can reduce visibility and increase the risk of accidents.

4.1.2.5. Pedestrian Safety

Construction Phase

- Open pits and excavations: Failure to adequately cover or mark pits and excavations created during construction may cause pedestrians to fall.
- Spilled materials and obstacles: Construction materials left unattended on the sidewalk pose a tripping and falling risk for pedestrians walking on the sidewalk.
- Failure to create alternative pedestrian routes: If safe passageways are not determined for pedestrians due to the construction area, they may have to walk through dangerous areas.

- Incorrect or missing directional signs: Lack of signs indicating which way pedestrians can safely pass can create directional confusion.
- The shared access route from the construction camp passing close to sensitive receptors, including schools, requires special pedestrian safety measures. This includes clearly marked and separated pedestrian paths, additional crossing points with traffic controls near schools, and the presence of crossing guards during peak school hours to safeguard children and other pedestrians.

Operation Phase

- Failure to locate pedestrian crossings in appropriate locations: The absence of crossings on the most frequently used routes by pedestrians may cause pedestrians to cross uncontrolled areas.
- Failure to comply with speed limits: Drivers not reducing their speed due to intersection design may increase the risk of pedestrian collisions.

Visibility problems at turns: It can be dangerous for drivers not to notice pedestrians, especially when turning right or left.

4.1.2.6. Loss of Land and Livelihoods

Land acquisition was carried out through a combination of public land renunciations (from the Kayseri Metropolitan Municipality, Melikgazi Municipality, and the State Treasury) and a limited number of private land partial expropriations. As stated in Section 3.4, no physical displacement or loss of livelihoods has occurred as a result of the land acquisition process. However, specific risks related to temporary construction impacts and community access must be considered.

Stakeholder interviews and site visits confirmed that the privately acquired partial parcels (664/181, 664/178, 664/179, and 664/176) consist of sidewalks. However, these areas are not used for private purposes since these areas are commonly used by public (see Figure 2-26). They are not actively used for recreation or income generation, and no playgrounds, landscaped areas, or structures were observed. All affected owners confirmed receipt of full compensation and raised no grievances. Partial expropriation was carried out on the basis of mutual agreements. While no formal or informal businesses are located on the acquired parcels, several small family-run businesses operate near the project corridor, including grocery stores, barbershops, tailor shops, tea houses, butcher shops, patisseries, car rental services, and textile shops. Due to their proximity to the construction corridor, these businesses may be temporarily affected during the construction phase by noise, dust, particularly along traffic diversion routes.

Loss of land due to junction construction were not used for any income generation since these areas are used for common public purposes. Therefore, no adverse impact on long-term usage plans or livelihoods is anticipated.

Key measures include clear signage for rerouted traffic, alternative pedestrian routes (see Figure 3-4), and timely communication to ensure businesses are informed about construction schedules and access changes. Additionally, the site access route described in Section 2.3 has been designed in coordination with the Municipality to provide alternative routes that minimize disruption to both pedestrian and vehicular traffic during road closures. Consequently, the likelihood of adverse impacts on sensitive receptors and small businesses concerned about potential income loss is considered low.

As identified in the socio-economic environment section, vulnerable groups such as low-income households, elderly individuals, and migrants may face challenges during this period due to reduced access to essential services and businesses. The Grievance Mechanism will be available to address any concerns related to these impacts.

Based on site-specific assessments, no physical or economic displacement or loss of income-generating assets was identified. Therefore, a subproject-specific Livelihood Restoration Plan (LRP) is not required. However, if unexpected livelihood-related grievances arise, the Grievance Mechanism will be used to address them in line with ESS5 requirements.

As also outlined in Sections Community Health and Safety, Traffic Safety, and Pedestrian Safety measures to mitigate reductions in pedestrian traffic and traffic diversions, as well as factors affecting sensitive receptors, are detailed in the Construction ESMP Matrix. Furthermore, additional mitigation measures to be implemented by Kayseri Metropolitan Municipality (KMM) have been incorporated. .

Operation Phase

No further land acquisition or livelihood impacts are anticipated during the operation phase.

4.1.2.7. Disadvantaged and Vulnerable Individuals or Groups

Certain vulnerable groups such as disabled people, children or elderly people, certain minorities and groups with livelihood dependencies in the Subproject region might be affected during the construction phase. Subproject specific ESMP along with the SEP will consider any impacts in association with the daily living patterns of potential vulnerable groups (i.e school aged children commuting for school) that may be generated due to civil works.

Construction Phase

- Lack of temporary paths suitable for disabled access: Closing or deterioration of sidewalks due to construction may restrict the movement of individuals using wheelchairs.
- Unsafe pedestrian paths: Narrowed sidewalks and uneven surfaces due to construction may increase the risk of falls and injuries for elderly individuals.
- Difficulty in accessing public transportation: The relocation of bus and tram stops due to construction may cause elderly individuals to have difficulty in transportation.

Operation Phase

- Lack of Tactile Surface: Incomplete or incorrect application of embossed surfaces that enable visually impaired individuals to find their way may lead to accidents.
- Accessibility Issues: Individuals using wheelchairs may have to use the road due to high sidewalks, lack of ramps or incorrect slopes.

- **Public Transportation Issues:** The distance between stops or inadequate lighting may make it difficult for women to safely travel.

4.1.2.8. Cultural Heritage

Tangible Cultural Heritage

The Cultural Inventory Map was used to analyze the location of cultural heritage²⁶. The Kartal Martyrs' Cemetery, located directly within the subproject area, is a protected cultural heritage site. The closest registered asset is the Emir Ali Tomb, located approximately 5 meters from the construction zone, which poses a potential risk of physical impact if not properly managed.

In addition, the Industrial Vocational High School Foundry and the B-Block Mechanical Drawing Workshop, both designated as registered cultural properties, are located approximately 230 meters from the subproject area. The Döner Tomb, a nationally registered cultural asset, is located about 290 meters away from the construction zone (see Figure 2-31).

Buffer Zones and Site Access Restrictions

To protect these heritage sites, especially the Emir Ali Tomb, a mandatory 1.5-meter-wide buffer zone has been established around each cultural asset, within which no construction activities of any kind will be permitted. This buffer zone aims to prevent physical damage and minimize adverse effects such as vibration, dust, and noise, ensuring the visual and structural integrity of the sites is maintained.

The buffer zones are defined in accordance with national cultural heritage regulations and World Bank ESS8 standards. These measures are confirmed by the official opinion from the Ministry of Culture and Tourism Kayseri Cultural Heritage Protection Regional Board (Annex B), which also attests that construction activities will not physically affect the registered cultural assets.

Potential Impacts and Protective Measures

Potential risks during construction include vibration, dust generation, accidental damage, and visual disturbance. To mitigate these impacts:

Physical barriers made of suitable materials will be installed around the buffer zones to prevent access and reduce vibration and dust transmission.

Information boards and occupational safety equipment will be placed around construction boundaries to raise awareness and ensure site safety.

Open excavations, material stockpiles, and equipment will be secured with barricades and warning signs to prevent hazards.

Dust and pollution control measures will be implemented, including regular watering, use of chemical dust suppressants, ventilated dust filters on machinery, and routine maintenance of vehicles and equipment.

Construction activities within the buffer zones will be strictly prohibited; non-compliance will result in daily monetary penalties imposed by Kayseri Metropolitan Municipality.

Supervision and continuous monitoring of these measures will be conducted by Kayseri Metropolitan Municipality to ensure effectiveness throughout the project lifecycle.

Chance Finds Procedure

A Chance Finds Procedure has been developed and will be implemented immediately if any cultural artifacts or remains are discovered during excavation or earthworks (see Annex G). Workers and supervisors will be trained to recognize and report such findings, and work will be halted in the affected area until competent authorities provide clearance.

Intangible Cultural Heritage

There is no intangible cultural heritage that is likely to be affected by the Subproject activities. This conclusion is based on field visits and stakeholder interviews conducted during the preparation of the ESMP.

²⁶ <https://kulturenvanteri.com/>

4.2. Construction ESMP Matrix

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
ESS2 - Labor and Working Conditions					
1	Risks associated with labor and working conditions	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Develop and implement a Subproject-specific Contractor Management Plan and Labor Management Plan. Ensure that the Subproject workers are provided with information and documentation that is clear and understandable regarding their terms and conditions of employment. The information and documentation will set out their rights under national labor and employment law (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from the requirements of ESS2. Ensure that information and documentation regarding employees' terms and conditions of employment is provided at the beginning of the working relationship and when any material changes to the terms or conditions of employment occur. Ensure that the Subproject workers are paid on a regular basis as required by national legislation and the Subproject-specific Labor Management Plan (LMPs). Ensure that the Subproject workers are provided with adequate periods of rest per week, annual holiday and sick, maternity and family leave, as required by national legislation and the Subproject-specific LMP. Ensure that the decisions relating to the employment or treatment of Subproject workers are not made on the basis of personal characteristics unrelated to inherent job requirements. Ensure that the employment of Subproject workers is based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> Labor Management Plan Contractor Management Plan SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>(including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.</p> <ul style="list-style-type: none"> Measures will be taken to prevent employment or engagement of children under the minimum age established in CDRC Project's LMP²⁷. Measures will be taken in accordance with the Subproject specific Labor Management Plan to prevent use of forced labor²⁸ in connection with the Subproject. Where on-site or off-site accommodation services²⁹ are provided to Subproject workers, ensure that the relevant requirements of "Workers' Accommodation: Processes and Standards: A guidance Note by IFC and the EBRD (August 2009)" are in place and implemented on the management and quality of accommodation to protect and promote the health, safety, and well-being of the Subproject workers, and to provide access to or provision of services that accommodate their physical, social and cultural needs. Provide anonymous, accessible worker GM; disclose to all workers at recruitment; protect from retaliation Implement LMP and CMP; ensure clear contracts, equal pay, fair recruitment, and training. All workers, including subcontractor personnel, must receive Occupational Health and Safety (OHS) training in accordance with applicable national legislation before starting work and at regular intervals thereafter. <p>Site-specific Measures</p>		

²⁷ According to the Project LMP, workers under the age of 18 will not be engaged by the Project.

²⁸ Forced labor consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. Work is on a voluntary basis when it is done with the free and informed consent of a worker. Such consent must exist throughout the employment relationship and the worker must have the possibility to revoke freely given consent. In particular, there can be no "voluntary offer" under threat or other circumstances of restriction or deceit. To assess the authenticity of a free and informed consent, it is necessary to ensure that no external constraint or indirect coercion has been carried out, either by an act of the authorities or by an employer's practice.

²⁹ Those services might be provided either directly by the Sub-borrower, contractors or by third parties.

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Enforce site specific Code of Conduct (disclose to all accommodated workers); provide GBVH training; implement confidential GM for SEA/SH; monitor violations (see Annex J) Considering the proximity of residential neighborhoods (e.g., Battalgazi and Hunat), awareness training on local sensitivities and quiet hours will be provided to accommodated workers. The worker accommodation site, located on municipal land, will be regularly inspected to ensure compliance with hygiene, safety, and well-being standards, including gender-segregated facilities and adequate lighting. 		
2	OHS - Physical Hazards: Confined Spaces	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Ensure the implementation of engineering measures to eliminate, to the extent possible, the presence and negative character of confined spaces. Ensure that permanent safety measures are provided for ventilation, monitoring and recovery operations to the extent possible in confined spaces requiring authorization. Access hatches will accommodate 90% of the worker population with adjustments for tools and protective clothing. The most current ISO and EN standards will be consulted for design specifications Before entering a confined space requiring authorization, ensure that the following measures have been implemented: <ul style="list-style-type: none"> Process or feed lines into the space will be disconnected or drained, and blanked and locked-out. Mechanical equipment in the space will be disconnected, de-energized, locked-out, and braced, as appropriate. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> ○ The atmosphere within the confined space will be tested to assure the oxygen content is between 19.5 percent and 23 percent, and that the presence of any flammable gas or vapor does not exceed 325 percent of its respective Lower Explosive Limit (LEL). ○ If the atmospheric conditions are not met, the confined space will be ventilated until the target safe atmosphere is achieved, or entry is only to be undertaken with appropriate and additional PPE. • Ensure that safety measures include Self-Contained Breathing Apparatus (SCBA), lifelines and safety lookouts located outside the confined space, with rescue and first aid equipment readily available. • Ensure that adequate and appropriate training in confined space hazard control, atmospheric testing, use of required PPE, and availability and integrity of PPE is provided before workers are required to enter a permit-required confined space. • Ensure that adequate and appropriate rescue and/or recovery plans and equipment are in place before the worker enters the confined space. • . • • Confined space work will be subject to a permit-to-work system. No personnel will be allowed to work alone in confined spaces. A “buddy system” will be implemented, whereby at least two trained individuals must be present at all times, including a standby person stationed outside the confined space. • The standby person will maintain continuous communication with the person(s) inside the confined space and initiate 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>rescue operations if needed, according to the site-specific emergency plan.</p> <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Confined space risks may arise in tunnel areas and deep excavation zones. Some excavation areas will also be considered as confined spaces due to their limited access, depth, and enclosed configuration. These areas will be evaluated in terms of both excavation-related and confined space hazards. • Workers will receive training on recognizing signs of soil collapse and emergency procedures. • Excavation work will be halted in case of heavy rain or sudden flood risks. • Alternative escape routes will be identified and marked to ensure the safe evacuation of workers in the event of a collapse. • Electrical panels will be protected with waterproof enclosures, and residual current devices will be used to prevent electrical hazards in case of flooding. • Heavy machinery or material storage will be avoided near the edges of excavation areas to maintain load balance. • Excavation sites will undergo regular inspections by geotechnical experts, and signs of cracks or loose soil will be closely monitored. • Before starting excavation work, a geotechnical survey will be conducted to identify potential slope instability or loose soil conditions, and additional measures will be determined to ensure the safety of workers in weak or water-saturated soil areas . • Slope stabilization methods, such as benching, shoring systems (steel supports, shotcrete, anchoring, etc.), will be implemented to enhance stability in excavation sites. • The slope angle will be calculated according to the soil type and excavation depth and kept within safe limits. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Drainage channels, pump systems, and water discharge pipes will be installed to prevent the accumulation of rainwater or groundwater in work areas. • Waterproofing systems or temporary barriers will be implemented in tunnels and deep excavation areas to prevent water infiltration. • Sufficient water pumps and generators will be available at the worksite for rapid response to flooding. • A supervisor will be assigned to continuously monitor the work in the confined space. • A communication system (radio, telephone, etc.) will be established between the confined space and the outside. 		
3	OHS - Physical Hazards: Electrical Hazards	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> • Ensure that all energized electrical devices and lines are marked with warning signs • Ensure that the devices are locked (de-charging and leaving open with a controlled locking device) and labeled (warning sign placed on the lock) during service or maintenance. • Ensure that all electrical cords, cables, and hand power tools are checked for frayed or exposed cords. Also, ensure that the manufacturer's recommendations for the maximum permitted operating voltage of portable hand tools are followed • Ensure that all electrical equipment used in environments that are or may be wet is double insulated/grounded; use equipment with ground fault interrupter (GFI) protected circuits. • Ensure that power cords and extension cords are protected against damage from traffic by shielding or suspending above traffic areas • Ensure that high-voltage equipment ('electrical hazard') and service rooms where access is controlled or prohibited are properly labeled. 	<ul style="list-style-type: none"> • Sub-borrower • Contractor 	<ul style="list-style-type: none"> • OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Ensure that "No Approach" zones are established around or under high voltage lines. • Ensure that construction vehicles or other vehicles with rubber tires that come into direct contact with or arc across high-voltage cables are taken out of service for 48 hours. • Ensure that all buried electrical cables are thoroughly identified and marked prior to any excavation work. • Electrical work will be only be carried out by authorized and trained personnel. • Personnel working with electricity must wear appropriate insulated gloves, dielectric footwear, and face protection equipment. • Exposed cables will be avoided at all times, and any crushed, damaged, or deteriorated insulation cables must be replaced immediately. • Electrical installations will be inspected regularly by qualified electricians, and periodic testing must be conducted. • CO₂ or dry chemical fire extinguishers must be available on-site for responding to electrical fires. • Workers must be trained on electrical emergency procedures. • The knowledge that electrical fires will not be intervened with water will be supported by training. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Electrical panels and outlets will be placed in areas away from flammable materials. • On-site lighting systems must be shockproof and waterproof, and no exposed cables will be left. • Temporary panels and outlets will be de-energized when not in use, and unauthorized access must be prevented. • A generator will be available to handle unexpected power outages. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Insulating mats will be placed under the electrical panels. Before any excavation or ground works, coordination will be made with the local electricity distribution authority to identify and map existing underground or overhead electrical lines. If the existing infrastructure will be relocated, works shall only be performed under the supervision of the authorized institution (e.g., the municipality or electricity distribution company). Clearly marked buffer zones will be established around known electrical infrastructure (e.g., 3 meters clearance) and access restricted to authorized personnel only. Power will be shut down and confirmed de-energized before any infrastructure relocation or demolition takes place. Warning signs and protective barriers will be installed in areas where electrical infrastructure is retained and remains energized during construction. Site personnel will be informed through toolbox trainings on the location and nature of existing electricity infrastructure in the construction zone. 		
4	OHS - Physical Hazards: Rotating and Moving Equipment	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Design machines to eliminate trap hazards and ensure that extremities are kept out of harm's way under normal operating conditions; i.e. availability of emergency stops dedicated to the machine and placed in strategic locations. If a machine or equipment has an exposed moving part or an exposed pinch point that could endanger the safety of any worker, ensure that the machine or equipment is equipped with and protected by a guard or other device that prevents access to the moving part or pinch point. Guards will be designed and installed in conformance with appropriate machine safety standards. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Ensure that machinery with exposed or protected moving parts or in which energy can be stored (e.g. compressed air, electrical components) is turned-off, disconnected, isolated and de-energized (Locked Out and Tagged Out) during service or maintenance. • Where possible, ensure that equipment is designed and installed to enable routine servicing, such as lubrication, to be carried out without removing guarding devices or mechanisms • Heavy machinery (e.g., excavators, cranes, concrete pumps) must only be operated by authorized and trained personnel. • All equipment must be used according to the manufacturer's instructions and will not be overloaded beyond its designated capacity. • Operators and personnel working near machinery must wear appropriate personal protective equipment (PPE), including helmets, gloves, safety glasses, and high-visibility vests. • Proper work attire must be worn, as loose clothing, uncovered hands, or dangling equipment parts pose a risk of entanglement in rotating machinery. • Regular maintenance and inspections must be conducted to check for wear, loose components, and potential failures in moving parts. • Regular safety training sessions must be conducted on precautions to take when working with rotating and moving equipment. • Operators must perform safety checks on equipment at the beginning and end of each shift, and any potential malfunctions must be reported immediately. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Rearview cameras, sensors, and audible warning systems will be installed on large vehicles and machines. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Barriers and warning signs must be placed to prevent unauthorized personnel from entering areas where heavy machinery is in operation. 		
5	OHS - Physical Hazards: Welding and Hot Works	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Ensure that appropriate eye protection, such as welder's goggles and/or a full-face eye shield, is provided for all personnel involved in or assisting with welding operations. If welding or hot cutting is performed outside of established welding work stations, ensure that special hot work and fire prevention precautions and Standard Operating Procedures (SOPs) are in place, including "Hot Work Permits, stand-by fire extinguishers, stand-by fire watch and maintaining fire watch for up to one hour after welding or hot cutting is finished". In addition to fire extinguishers, fire blankets will be available Develop specific procedures for hot work on tanks or vessels containing flammable materials. Welding and hot work must only be carried out by trained and authorized personnel. Suitable ventilation systems must be provided to prevent the accumulation of welding fumes, especially in confined and restricted spaces. Workers will wear suitable protective clothing against welding spatter and high temperatures. Respirators with appropriate filters will be used to reduce exposure to fumes and gases. Fireproof curtains or barriers will be used in welding areas to prevent the spread of sparks. Escape routes must be kept clear so that workers can evacuate quickly in the event of a fire or explosion. Welding surfaces must be cleaned from paint, oil, or solvent residues. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<u>Site-specific Measures</u> <ul style="list-style-type: none"> Flammable gases, liquids, and materials must be moved away from the work area. Flammable gas cylinders such as oxygen and acetylene will be stored in an upright position at a safe distance. All connections and hoses in the cylinders must be tested for tightness before welding to check for flammable gas leaks. 		
6	OHS - Physical Hazards: Industrial Vehicle Driving and Site Traffic	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Ensure that industrial vehicle operators are trained in the safe use of specialized vehicles such as forklifts, including safe loading/unloading, load limits Ensure that drivers undergo regular medical supervision. Ensure that moving equipment with restricted rear visibility is equipped with audible back-up alarms Ensure that rights of way, site speed limits, vehicle inspection requirements, operating rules and procedures (e.g. prohibiting operation of forklifts with forks down), and control of traffic patterns or direction are established Ensure that deliveries and movement of private vehicles are restricted to defined routes and areas, with 'one-way' movement preferred where appropriate Temporary roads and traffic markings will be clearly delineated, regularly maintained, and inspected to ensure safe navigation of vehicles. Engine idling will be minimized to reduce fuel consumption and exhaust emissions. Walkways will be kept clear of obstructions and regularly inspected for hazards. Improperly stored materials will be promptly removed to maintain a safe and organized work environment. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Operators will activate warning signals and maintain communication during loading and unloading operations to prevent accidents. Reflective warning signs and barricades will be placed at critical points, especially near turning or blind zones. Nighttime operations will not be conducted unless sufficient lighting and additional safety measures are in place. Where feasible, dedicated pedestrian crossings will be established, separated from vehicle routes using barriers or markings. All loads will be properly secured prior to transport to prevent shifting during movement. Industrial vehicles such as telehandlers, excavators, cranes, and trucks will only be operated by trained and certified personnel. Operators will undergo regular vision, hearing, and reflex tests, as well as alcohol and drug testing. A maintenance schedule will be established, and regular maintenance and technical inspections will be conducted. Faulty or unsafe vehicles will not be used and must be reported immediately to authorized personnel. Speed limits will be set within the site, and appropriate traffic signs will be installed. All workers on-site will wear reflective vests to ensure they are easily visible to vehicle operators. Site personnel will be informed about emergency situations such as collisions, rollovers, or fires, and regular drills will be conducted. Regular site inspections will be carried out to monitor compliance with established site traffic rules. <p>Site-specific Measures</p>		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> The works at these sensitive locations will be confined within the existing road boundaries and limited to a single lane. Final works, including asphalt resurfacing and sidewalk rehabilitation, will be conducted in these single-lane sections towards the completion phase of construction. This final phase is expected to last no more than 10 days. During this period, the sections of the road where construction has already been completed will be reopened to traffic, ensuring uninterrupted access to the surrounding areas. It should be noted that this is a single-lane road with an approximate speed limit of 30 km/h. Additionally; construction activities at these sensitive points, as well as throughout the entire work area, will be carried out in full compliance with occupational health and safety (OHS) regulations. The perimeter of the construction site will be secured with barriers as part of the OSB Panel Construction Site Safety System. Brakes, steering, lights, mirrors, horns, and alarm systems will be checked before each shift. On-site vehicle and pedestrian pathways will be clearly marked and separated by barriers. Warning signs will be placed in areas where vehicles turn, load materials, or have limited visibility. Loading/unloading will only be performed when vehicles are completely stopped, and unauthorized access to these areas will be prevented. Parked vehicles will remain in designated parking areas and will not be parked outside the work zone. Communication between vehicle operators and site teams will be ensured using two-way radios to prevent blind spot accidents. During activities conducted near service roads that are separated from the construction area by single-lane barriers, appropriate barricading will be implemented between live traffic and construction operations. This will help prevent unauthorized crossings and minimize risks such as falling or 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>splashing of materials. A speed limit of 30 km/h will be enforced on these service roads. To ensure compliance with this speed limit, speed bumps will be installed at designated locations.</p> <ul style="list-style-type: none"> During nighttime operations, reflective and illuminated warning signs will be used to enhance visibility and increase driver awareness. In the event of short-term occupations of the service roads due to specific activities, traffic flow and site safety will be managed by flagmen assigned by the contractor. Communication between flagmen will be maintained by two-way radios when positioned far apart, and by hand signals when in close proximity. 		
7	OHS - Physical Hazards: Ergonomics, Repetitive Motion, Manual Handling Lifting	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Ensure that mechanical assists are used to eliminate or reduce the effort required to lift materials, hold tools and work objects, and that more than one person is lifting if weights exceed thresholds A health check by an occupational physician will determine whether a new employee can carry heavy loads. Ensure that tools are selected and designed that reduce force requirements and holding times and improve postures Ensure that user-adjustable workstations are provided Ensure that rest and stretch breaks are incorporated into work processes and job rotation is in place Ensure quality control and maintenance programs are in place that reduce unnecessary forces and effort Ensure that additional special circumstances, such as left-handed people, are considered Employees will be trained on correct posture and working positions, and habits of slouching and lifting incorrect loads will be corrected. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Work involving repetitive movements (concrete pouring, steel erection, etc.) will be rotated at regular intervals and workers will be given regular breaks. • Regular stretching exercises will be incorporated into daily work routines to prevent fatigue and musculoskeletal strain. • Where possible, mechanical handling and automation systems will be preferred over manual operations. • Employees will be taught heavy lifting, carrying, and lowering techniques to prevent spinal and lumbar injuries due to improper lifting. • Determine the weight limits that a single person can lift (for example, loads over 25 kg will be lifted by two people or mechanical assistance will be sought). • Routine health check-ups will be provided to ensure early detection of musculoskeletal disorders and to prevent long-term health problems for workers. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Ergonomic workspaces where workers can move freely will be created, and positions that require unnecessary bending and reaching will be minimized. 		
8	OHS - Chemical Hazards	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> • Ensure that the hazardous substance is replaced with a less hazardous substitute • Ensure that engineering and administrative control measures are in place to prevent or minimize the release of hazardous substances into the working environment, keeping the exposure level below internationally established or recognized limits • Ensure that the number of workers exposed or likely to be exposed is minimal. • Ensure that chemical hazards are communicated to workers through labeling and marking according to nationally and 	<ul style="list-style-type: none"> • Sub-borrower • Contractor 	<ul style="list-style-type: none"> • OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>internationally recognized requirements and standards, including International Chemical Safety Cards (ICSC), Material Safety Data Sheets (SDSs) or equivalent. Any means of written communication will be in an easily understood language and be readily available to exposed workers and first-aid personnel</p> <ul style="list-style-type: none"> • Ensure that workers are provided with hazard communication and training to prepare them to recognize and respond to chemical hazards in the workplace. Programs will include aspects of hazard identification, safe operating and materials handling procedures, safe work practices, basic emergency procedures, and special hazards unique to their jobs. • Ensure that permitted maintenance activities such as hot work or confined space entries are defined and implemented • Ensure that appropriate PPE (footwear, masks, protective clothing and goggles in appropriate areas), emergency eyewash and shower stations, ventilation systems and sanitary facilities are provided • Ensure that employees are trained in the use of available information (such as SDSs), safe working practices and proper use of PPE • Ensure that monitoring and record-keeping activities and accident and incident investigation reports, including audit procedures designed to verify and record the effectiveness of the prevention and control of exposure to occupational hazards, are kept on file for at least five years. • All chemical containers must be clearly labeled with their contents and hazard classifications, and warning signs must be placed for flammable, corrosive, or toxic substances. • A safety assessment must be conducted before the use or mixing of different chemicals. • All workers must receive training on safe handling of chemicals, exposure effects, and first aid procedures. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Workers must be informed about the necessary actions to take in case of chemical spills, burns, or inhalation incidents. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Chemicals will be stored in ventilated, spill-resistant enclosed areas, protected from direct sunlight and heat. Chemical overflow pallets will be provided, and chemicals will be placed on them. Flammable and oxidizing substances must be stored separately, and reactive substances such as acids and bases will not be kept together. Chemicals must be stored in appropriate containers, and any damaged or leaking containers will be replaced immediately. Eye wash stations and emergency showers will be available in areas with a high risk of chemical exposure. 		
9	OHS - Physical Hazards: Working at Height:	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> The work area's structure, weather conditions, and height-related risks will be assessed before starting work. Whenever possible, assembly methods that eliminate the need for working at height will be preferred (e.g., pre-assembling components on the ground and lifting them with a crane). Work at height will not be carried out in adverse weather conditions such as strong winds, rain, or icy surfaces. A work permit procedure must be applied for working at height, and approval from authorized personnel must be obtained. Workers must wear a full-body safety harness securely attached to designated anchor points. Scaffolds must be installed by qualified personnel and inspected daily. Scaffolds and platforms must not be overloaded beyond their capacity. Scaffolds and platforms must be equipped with guardrails at least 90 cm in height and toe boards at least 15 cm in height. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> An anemometer will be provided to accurately measure wind speed. Studies will be conducted with controlled wind measurements. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> In areas requiring climbing, stable, non-slip surfaces and properly positioned ladders must be used. Ladders must have handrails or secure grip points on both sides. Workers will not carry heavy loads while using ladders; lifting equipment such as cranes or hoists will be utilized. Rescue ropes, stretchers, and emergency exit routes must be clearly identified and easily accessible. Rescue teams must be on standby to provide an immediate response in the event of a fall or injury. 		
10	OHS - Physical Hazards: Slips and Trips:	Contractor's personnel Subproject-related personnel on-site.	<p><u>General Measures</u></p> <ul style="list-style-type: none"> The worksite will be regularly inspected and kept clean. Materials will be properly stacked in designated storage areas. Rainwater, mud, oil spills, and other slippery substances will be removed or cleaned immediately. Cables and hoses on the ground pose a tripping hazard; therefore, cable trays or suspension systems will be used. These types of risks will be highlighted during daily or weekly site meetings. Walkways will be kept clear, and materials should be placed in a way that does not obstruct pedestrian paths. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Wooden pieces, iron rods, packaging materials, and other waste will be collected at specific points and promptly removed from the site. Pits and uneven surfaces will be leveled, and filling materials will be used where necessary. Slip and fall hazard areas will be secured with barriers or warning signs. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
11	OHS - Physical Hazards: Noise, Vibration and Dust Exposure	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Noisy machinery will be replaced with quieter models whenever possible. Sound barriers, acoustic panels, or other noise-absorbing materials will be used near high-noise equipment such as compressors, concrete cutters, or generators, particularly in enclosed or semi-enclosed environments (e.g., tunnels, underpasses, or retaining wall corridors), where sound transmission is amplified. These measures will be implemented based on risk assessment outcomes and only where noise exposure levels pose a potential risk to worker health. . A sufficient distance will be maintained between noisy areas and other work zones to minimize noise exposure. Regular maintenance of machinery and equipment will be performed to reduce excessive noise generation. Workers will be provided with hearing protection equipment, such as earplugs or earmuffs. The effectiveness of hearing protection devices will be periodically tested and verified. Low-vibration machinery and equipment will be preferred. Vibration-damping pads and shock absorber systems will be used. Ground stabilization will be ensured to prevent the spread of vibrations. Regular health screenings will be conducted to monitor hand-arm vibration-related illnesses. Anti-vibration gloves will be used. Water spraying systems will be used to control dust generation. Dust-generating operations will be carried out in enclosed areas or with local ventilation systems. Vacuum dust extraction systems will be used for machinery that generates high levels of dust. Dust masks (FFP2 or FFP3 level) will be worn. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Dustproof goggles will be used to protect the eyes. Appropriate work clothing and gloves will be worn to reduce skin exposure to dust. A noise meter will be provided to measure the noise level caused by loud equipment in the working environment. Once the noise levels of machinery during operation have been determined, workers will be provided with appropriate ear protection and its use will be made mandatory. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Noisy equipment such as compressors, generators, and concrete cutting machines will be placed in soundproof enclosures. 		
12	OHS - Physical Hazards: Risk of Collapse	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Adequate support systems (scaffolding, formwork, and bracing) must be installed for columns, beams, excavation walls, and temporary structures. To prevent premature loading, structural elements must not be subjected to weight before the curing process is complete. Materials must be securely stacked and stabilized to prevent tipping hazards. Formwork and scaffolding for overpass construction shall be erected and dismantled under the supervision of qualified personnel, following manufacturer specifications. Working alone will not be allowed. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Excavation shoring systems, slope stabilization methods, and steel bracing will be used for deep excavations. Drainage systems and water pumps must be installed to prevent water accumulation in excavation areas. The slopes of excavation areas will be calculated and reinforced with shotcrete or geotechnical textiles when necessary. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Excavation activities for infrastructure relocation shall be preceded by ground stability assessment and daily visual inspections for cracks or soil movement. Construction in high-risk collapse areas (e.g., after heavy rain) shall be temporarily suspended until ground conditions are reassessed and deemed safe. Excavated materials generated during the Subproject are not intended for direct reuse. However, if any of the excavated materials are considered to be of high quality and potentially suitable for reuse (e.g., as backfill), their use shall be permitted only after laboratory and field testing confirm compliance with relevant technical specifications. Approved materials shall then be placed in layers and properly compacted. 		
13	OHS - Biological Hazards: Unhygienic or Unhealthy Living Conditions	Contractor's personnel Subproject-related personnel on-site	<u>General Measures</u> <ul style="list-style-type: none"> Living quarters will be spacious, well-ventilated, and ensure a comfortable resting environment for workers. Living quarters, dining facilities, and shared areas will be cleaned and disinfected regularly in accordance with hygiene standards. Proper ventilation must be ensured in enclosed spaces, and efficient heating systems must be available during cold weather. Regular pest control measures will be implemented to prevent the presence of rodents and insects in living areas. Workers will be provided with well-balanced, nutritious meals, prepared under strict food safety protocols. Workers must have continuous access to clean and safe drinking water, if sanitary water is stored in on-site tanks or transported by truck, the provisions of the Regulation on Water Intended for Human Consumption will be fully complied with. All storage tanks will be regularly maintained and cleaned to ensure water quality. All workers, including direct and contracted personnel, will undergo pre-employment medical examinations prior to starting work, and periodic health screenings will be conducted in 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>accordance with national OHS legislation. Hygiene training will also be provided regularly.</p> <ul style="list-style-type: none"> First aid kits will be available in living areas, and trained personnel must be on standby for emergency response. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Dining and food storage areas will be inspected regularly to prevent the consumption of spoiled or expired food. An adequate number of toilets and shower facilities will be provided to meet workers' needs. Restrooms must always be stocked with essential hygiene supplies such as soap, paper towels, and disinfectants. Wastewater drainage in toilet and shower areas will function properly to prevent blockages and leaks. Workers showing symptoms of infectious diseases, such as flu or gastrointestinal infections, must be quarantined to prevent outbreaks. If food is produced on site, witness samples will be taken from each meal and stored under appropriate conditions. If meals are outsourced, official documentation must be obtained that the company providing the meals fulfills its legal food safety obligations. 		
14	OHS - Physical Hazards: Falling Objects	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Materials used at high levels must be securely fastened, and support elements must be used to prevent slipping. Fall arrest safety nets and barriers must be placed under high work areas. Appropriate handling techniques and lifting apparatus must be used to prevent unstable handling of materials lifted by crane. There must be appropriate warning signs and information boards in areas where there is a risk of falling objects. All workers at the construction site must wear impact-resistant hard hats. Steel-toed work shoes must be used to prevent heavy falling objects from causing foot injuries. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Appropriate work gloves must be preferred to safely grip falling or slippery objects. Training must be provided to workers on material fixing, handling, and assembly at height. The work permit system must be applied for working at height and heavy lifting operations, and processes must be audited. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Areas where critical assembly and lifting operations are carried out will be temporarily isolated from the work site. 		
15	OHS - Physical Hazards: Emergency Evacuation Difficulties	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> An Emergency Preparedness and Response Plan will be developed prior to the commencement of works to cover all relevant construction and mobilization areas under the Subproject. All work areas must have clearly marked emergency exit routes. Materials and equipment must be arranged to ensure that emergency exit routes remain unobstructed. Emergency exit signs must be phosphorescent to ensure visibility in low-light conditions. Adequate stairways or escape routes must be provided for emergency descent from elevated platforms. Regular emergency drills must be conducted for fire, chemical spills, earthquake, flood, electric shock and collapse scenarios. Emergency response leaders must be assigned for each shift, with clearly defined responsibilities. A radio communication or public announcement system must be in place for emergency notifications. Each team must have a designated emergency contact person, with a pre-established communication chain. All workers must receive training on emergency procedures. Hands-on training must be provided on fire extinguisher operation, chemical spill containment, and emergency evacuation procedures. Workers must be well-informed about evacuation routes, assembly points, and emergency response protocols. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan Emergency Preparedness and Response Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Specific personnel must be trained in first aid and rescue operations on-site. Periodic safety briefings must be held to reinforce emergency response protocols. Emergency teams must be established according to the provisions of the Regulation on Emergency Situations in Workplaces. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Assembly points must be positioned in safe zones, well away from active construction machinery, with appropriate signage. Temporary scaffolding and platforms must be positioned in a way that does not block evacuation paths. Portable fire extinguishers must be easily accessible in fire-prone areas. Fixed fire suppression systems must be installed in high-risk zones. Rope evacuation systems or crane-assisted rescue equipment must be available when necessary. Dedicated escape routes must be designated for vehicles and heavy machinery to ensure smooth site traffic flow during evacuation. Assembly points must be located in secure areas, away from active construction zones. 		
16	OHS - Physical Hazards: High Tension Forces During Post-Tensioning Operations	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> The integrity and stability of anchorage points must be checked before the tensioning process. Concrete and steel connection points must be reinforced in accordance with design calculations. Energy-absorbing protection systems must be implemented in case of sudden cable failure. Hydraulic tensioning equipment must have limit settings adjusted to prevent excessive tension. A staged tensioning process must be applied to reduce the risk of sudden high forces. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Only authorized personnel will be allowed in post-tensioning areas. No workers will be positioned in the direction of cable tensioning. A work permit must be obtained, and approval processes must be completed before starting operations. Workers operating post-tensioning equipment must receive specialized training. Employees must be informed about potential risks and emergency response procedures. Hydraulic presses, tensioning devices, and steel cables must be regularly maintained and tested. Equipment inspections must be conducted before each use, and operating pressures must be kept within specified limits. Barriers or steel cages must be used in the tensioning area to protect workers. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> The work area must be enclosed with clearly visible warning signs and barriers. 		
17	OHS - Physical Hazards: During Lifting Operations	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> The capacity limits of the cranes and lifting equipment to be used must be determined, and overloading must be avoided. All lifting equipment must be regularly maintained and inspected. Ropes, steel cables, or chains suitable for the load to be lifted must be selected, and periodic inspections must be carried out. Fasteners resistant to breakage or abrasion must be used. Shaking and sudden movements must be avoided during the lifting of loads. It must be ensured that the loads are centered and balanced during lifting. Lifting equipment must be equipped with overload sensors and emergency stop systems. A detailed risk analysis must be carried out prior to lifting operations, and an approved work permit must be obtained. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Special training must be organized for lifting managers and signalers. • Ensure effective communication between signalers and operators during lifting. • Hand signals and radio communication methods must be determined. • There must be absolutely no workers under the load. • Signal persons for lifting and lowering operations must be identified. These people must have a Vocational Qualification Certificate. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Wind speed, ground conditions, and site conditions must be assessed during lifting operations. • Wind and weather conditions must be continuously monitored in the work area. • The lifting area must be restricted against unauthorized access. • The working area must be designated with barriers and warning signs. • During operations, only one signalman must be assigned to each operator, and the operator must receive commands from a single signalman. 		
18	OHS - Physical Hazards: Risk of Vehicle Struck	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> • Work areas must be separated from the traffic flow by barriers at an appropriate distance. • Plastic water barriers, steel barriers, or concrete blocks must be used. • Speed humps or temporary lane narrowing must be used to reduce the speed of vehicles. • Reflective signs and flashing lights must be used at night or in low-visibility conditions. • The work area must be adequately illuminated, and additional floodlights must be installed, especially during roadside operations. • Temporary traffic lights or signs must be installed in the work area. 	<ul style="list-style-type: none"> • Sub-borrower • Contractor 	<ul style="list-style-type: none"> • OHS Management Plan • Traffic Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Speed limits must be reduced in the work area, and lane changes must be clearly indicated. Trained flaggers or banksman must be assigned to direct traffic. Flaggers must provide a safe working environment by communicating with drivers visually and audibly. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Drivers must be warned in advance with digital guidance signs. Work must be planned taking into account traffic density, weather conditions, and working hours. Traffic flow must be diverted by creating alternative routes. Work zones will be entirely closed to public traffic during construction. Only construction vehicles will be allowed to operate within these zones under controlled conditions. Pedestrian and public vehicle access to the work zone will be strictly prohibited through the use of physical barriers, locked gates, and warning signage. A “two-barrier system” (e.g., steel barriers + safety fencing) will be established between workers and any active traffic corridors to reduce collision risks. Safety marshals will be stationed at key points within and around the work area to monitor site entry and vehicle movements and ensure immediate intervention when needed. High-visibility PPE (reflective vests, helmets with LED lights) will be mandatory for all personnel working near traffic. Speed limits for construction vehicles within closed work zones will be limited to 10 km/h, and spot checks will be conducted to ensure compliance. 		
19	OHS - Physical and Mental Hazards: Traffic Noise and Stress	Contractor’s personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Rotating shift system must be implemented to reduce noise exposure time. Noise levels in work areas must be measured and recorded regularly. At noise levels above 85 dB(A), additional measures must be taken to protect workers. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan Traffic Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Employees exposed to noise for long periods of time must be provided with regular breaks. Awareness trainings must be organized to prevent occupational accidents caused by noise and stress. Hand signals or radio systems must be used to avoid communication difficulties due to noise. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Work must be carried out at night or early morning hours when traffic density is lower. 		
20	OHS - Physical Hazards: Adverse Weather Conditions	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Weather forecasts must be monitored regularly, and work hours and shifts must be adjusted accordingly in case of adverse weather conditions. In extreme heat or cold conditions, break times must be extended, and rest areas must be provided for workers. Work must be immediately stopped, and workers must move to safe areas in case of storms, lightning, or heavy rainfall. Electrical and mechanical equipment must be protected with waterproof measures. Thermal clothing, waterproof shoes, and gloves must be provided for cold weather. Breathable clothing, hats, and sunglasses must be provided for hot weather. High-visibility vests and reflective clothing must be worn on foggy, rainy, or low-light days. Flashlights or headlamps must be provided for proper illumination. In extreme heat, water and shaded areas must be provided for workers, and frequent hydration must be encouraged. In cold weather, body temperature must be regularly monitored to prevent hypothermia and frostbite, and warm beverages must be made available. <p><u>Site-specific Measures</u></p>	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Temporary tents, shelters, or windbreak barriers must be used to protect workers from rain, snow, strong winds or extreme heat (e.g., above 35°C or based on local climate conditions). Regular salting and sanding must be carried out in icy areas during winter months. Work at height must be suspended during strong winds and heavy rainfall. Outdoor work platforms and scaffolding must be securely anchored, with additional connections to prevent tipping. Speed limits must be set and strictly enforced due to slippery surfaces and reduced visibility. 		
21	OHS - Physical Hazards: Inadequate Lighting	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> The illumination level of the work area must be measured and evaluated before maintenance and cleaning work, especially for night work and for confined spaces. A lux meter must be provided for possible night work or when daylight is insufficient. Low illumination areas must be identified and preventive measures should be taken. Night work will be avoided and daytime work will be prioritized as much as possible. If working at night or in low light conditions is mandatory, break times will be increased and eye strain will be prevented. All workers must wear high-visibility reflective clothing. Workers will be provided with portable lighting equipment such as head torches, flashlights, or waist torches. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Emergency lighting and photoluminescent (light-storing) directional signage must be provided for tunnels, underpasses, and confined spaces. Additional lighting poles and floodlights must be installed throughout the work for areas where inadequate lighting is identified. Battery-powered or solar-powered portable lighting must be used where there is no access to electricity. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan Emergency Preparedness and Response Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
22	OHS - Physical Hazards: Dust and Particulate Exposure	Contractor's personnel Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Dry sweeping must be avoided, and wet sweeping techniques must be used whenever possible. Ensure that roads and work areas are regularly moistened with water. Respiratory health of employees must be monitored with periodic health screenings. Suitable respiratory protective masks (FFP2 or FFP3) must be provided to workers in areas with high dust levels. Masks with activated carbon filters must be used in confined spaces or in jobs with long-term dust exposure. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Water spray systems must be used during operations such as cutting, grinding, and crushing. When necessary, industrial vacuum systems must be used to prevent dust from entering the air. Dust concentration in enclosed areas must be reduced by using exhaust ventilation systems. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan
23	OHS - Physical Hazards: Asbestos-Containing Material (ACM) Removal	Contractor's personnel, Subproject-related personnel on-site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> A designated asbestos removal zone must be established with restricted access to authorized personnel only. The area must be clearly marked with warning signs indicating asbestos hazards. All workers handling ACMs must receive specific training on asbestos risks and safe handling procedures, wear disposable coveralls, gloves, safety goggles, and P3-rated respiratory protection, and perform all activities under the supervision of a certified asbestos specialist in accordance with the Regulation on Health and Safety Measures in Work Involving Asbestos. Wet methods must be utilized, such as misting or applying wetting agents, to suppress dust and prevent airborne fiber 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> OHS Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>release during ACM removal. Dry removal methods are strictly prohibited.</p> <ul style="list-style-type: none"> Continuous air sampling must be conducted to measure fiber concentrations and ensure they remain below occupational exposure limits. HEPA-filtered exhaust ventilation and negative pressure enclosures must be implemented to control asbestos dispersion in confined or enclosed spaces. ACM waste must be double-bagged in labeled, airtight, and puncture-resistant containers before transporting it to designated hazardous waste disposal sites. A designated decontamination area must be provided with separate clean and dirty zones. Workers must follow strict decontamination steps, including removing contaminated PPE and showering before leaving the worksite. Emergency response procedures must be established, including medical treatment protocols for asbestos exposure incidents. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> An asbestos survey will be conducted by the Kayseri Water and Sewerage Administration (KASKİ) Mapping Unit before initiating removal activities to identify and map ACM locations. The work area must be sealed off with plastic sheeting or temporary barriers to prevent cross-contamination. Specialized arrangements must be made for the transportation and disposal of ACM waste at licensed hazardous waste facilities. Please specify the disposal options at this specific subproject site in consultation with the administration. Asbestos disposal activities will be conducted in compliance with the Regulation on Health and Safety Measures in Work Involving Asbestos. All asbestos-related measurements and sampling will be carried out by accredited laboratories authorized by the Ministry. Removal will be performed by 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>certified asbestos specialists, and transportation and final disposal will be undertaken by licensed hazardous waste carriers and disposal facilities. These procedures are defined in the tender documents in consultation with the local administration</p> <ul style="list-style-type: none"> • If ACM removal involves demolition, structural integrity must be assessed, and appropriate safety measures, such as bracing or scaffolding, must be in place. • ACM removal must not be conducted during adverse weather conditions that could increase fiber dispersion risks, such as strong winds or heavy rain. • A medical surveillance program must be implemented by the contractor for all personnel involved in asbestos removal, including third-party workers. The program will include pre-employment and periodic health assessments to monitor potential long-term health effects, and will be designed in line with national regulations. 		
24	Risks associated with management of employee grievances	Contractor's personnel Subproject- related personnel on-site	<ul style="list-style-type: none"> • Develop and implement a Subproject-specific Labor Management Plan, including grievance mechanism for Subproject employees (covering all direct and contracted workers) to raise workplace concerns during the construction phase. • Ensure that all direct and contracted workers are informed of the grievance mechanisms at the time of recruitment and the measures put in place to protect them against any reprisal for its use. • Ensure that measures are put in place to make the grievance mechanism easily accessible to all Subproject employees. 	Sub-borrower Contractor	<ul style="list-style-type: none"> • SEP • Labor Management Plan
ESS3 - Resource Efficiency and Pollution Prevention and Management					
	Resource Efficiency (Energy Use, Water Use and Raw Material Use)				

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	Energy Use, Water Use and Raw Material Use	Environmental resources (soil, surface water, groundwater), Ecological receptors,	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Ensure implementation of technically and financially feasible measures for improving efficient consumption of energy, water and raw materials, as well as other resources in the Subproject. Where possible, ensure maximization of the reuse of excess excavated, non-contaminated soil material, either as aggregate (e.g. reclaimed asphalt pavement or reclaimed concrete material) or as a base. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Non-contaminated excavated soil will be reused on-site where technically feasible, particularly as fill material or for landscaping purposes. Where soil is not suitable for on-site reuse, coordination will be made with the municipal authorities to assess its suitability for use in other municipal infrastructure or landscaping projects. Reclaimed asphalt pavement (RAP) and reclaimed concrete materials from existing road surfaces or structures to be demolished will be processed and reused as base or sub-base material, if their quality meets the required specifications. Where the reuse of materials on-site is not possible, suitable materials will be sent to licensed recycling facilities in coordination with the relevant municipal departments (e.g., Directorate of Science Affairs or Environment and Urbanization Department) to ensure recovery instead of disposal. <ul style="list-style-type: none"> These practices are aligned with the municipality's existing resource efficiency programs which promote sustainable use of raw materials and reduction of construction-related environmental footprints. 	Sub-borrower Contractor	<ul style="list-style-type: none"> ESMP
	Management				

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	of Soil Resources				
	Soil disturbance and erosion	Soil	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Minimizing disturbance to vegetation and soils. Reducing or preventing erosion by scheduling to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical; contouring and minimizing length and steepness of slopes; mulching to stabilize exposed areas; re-vegetating areas promptly; designing channels and ditches for post-construction flows; and/or lining steep channel and slopes. Modifying or suspending activities during extreme rainfall and high winds to the extent practical. Segregating or diverting clean water runoff to prevent it mixing with water from construction sites containing a high solids content. Limiting access road gradients to reduce runoff-induced erosion. Providing adequate road drainage based on road width, surface material, compaction, and maintenance. Providing effective short term measures for slope stabilization, sediment control and subsidence control until long term measures for the operational phase can be implemented. Providing adequate drainage systems to minimize and control infiltration. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Before the onset of land preparation and construction works, erosion control measures like drainage channels, settling structures, etc. will be implemented. To eliminate the risk of erosion in periods of excessive rainfall, the waters from the Subproject surroundings and slopes will be separated from surface run-off by directing through temporary channels and soil embankments. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> Soil Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> In the event that any undisturbed or vegetated soil patches are identified within or adjacent to the project footprint, soil sampling will be conducted to assess the physical characteristics and erosion susceptibility of these areas. 		
	Impacts on topsoil	Soil	<ul style="list-style-type: none"> The removed topsoil from green area will be preserved and utilized in the landscaping works of the Recep Tayyip Erdoğan National Garden. Maintain soil integrity in readiness for future use. Ensure that storage areas are temporarily protected or vegetated to prevent erosion. Conserve the quality and composition of growth medium for use (e.g. for capping) during site reclamation and closure activities. Ensure that the growth medium is sufficient to support native plant species appropriate for the local climate and consistent with proposed future land uses. Ensure that the overall thickness of the growth medium is consistent with surrounding undisturbed areas and future land use. Avoid soil handling during wet conditions to prevent structural damage and compaction. Ensure that drainage channels around stockpiles are regularly maintained to prevent waterlogging or erosion. Plan for the timely reinstatement of topsoil to minimize storage duration and reduce degradation of soil quality. 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> Soil Management Plan
	Management of Air Pollution				
	Emissions to air during	Settlements in the area of influence	General Measures	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> SEP Air Quality

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	construction	Flora-Fauna Species (at the Project footprint and AoI) Commercial Centers in the area of influence	<ul style="list-style-type: none"> • Use of dust control methods, such as covers, water suppression, or increased moisture content for open storage piles. • Use of water suppression for control of loose materials on paved or unpaved road surfaces. • Selectively removing potential hazardous air pollutants, such as asbestos, from existing infrastructure prior to demolition <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • ESMP and Air Quality Management Plan will be developed and implemented by the Contractor by covering relevant E&S issues and all personnel will receive the necessary training on air quality management. • In accordance with the “Exhaust Gas Emission Control and Gasoline and Diesel Quality Regulation” published in the Official Gazette No. 28837 dated 30.11.2013; vehicles undergoing traffic inspections will have exhaust gas emission measurements conducted. Vehicles requiring maintenance will be serviced after routine checks, while others will remain in use until maintenance is completed. • Excavated materials will be covered with nylon canvas or with materials with grain size larger than 10 mm during transportation. • The Project Grievance Mechanism will be implemented. If any comment related with dust and air quality is received through the Grievance Mechanism, the complaints will be evaluated, and necessary corrective preventive actions will be taken. • Air quality monitoring will be conducted at relevant sensitive receptors, as generally outlined in the 2.7.1.6 section of this ESMP, Parameters to be measured include PM₁₀ and PM_{2.5}, with monitoring conducted twice weekly during dust-generating activities using portable sensors. Measurement results will be benchmarked against the limits set in the Industrial Air Pollution Control Regulation (Türkiye) and WHO Air Quality Guidelines, considering both short-term and long-term thresholds. 		Management Plan
	Management				

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	of Wastes				
	Generation of non-hazardous and hazardous waste during construction	Surface water, soil Settlements in the area of influence	<u>General Measures</u> <ul style="list-style-type: none"> Establish waste management priorities at the outset of activities based on an understanding of potential Environmental, Health, and Safety (EHS) risks and impacts and considering waste generation and its consequences Ensure that a waste management hierarchy is established that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of waste Ensure that waste segregation and storage in temporary waste storage areas is managed according to the standards set out in the GIIP and relevant legislation Ensure that waste is classified and labeled according to waste codes. Ensure that data and information is collected on waste streams generated under the Subproject, including characterization of waste streams by type, quantity and potential use/disposal. Ensure that raw materials or inputs are substituted with less hazardous or toxic materials or with materials for which processing produces lower waste volumes. Ensure that good housekeeping and operational practices, including inventory control, are established to reduce the amount of waste from materials that are outdated, out-of-specification, contaminated, damaged or in excess of facility needs Ensure that the generation of hazardous waste is minimized by implementing strict waste segregation to avoid mixing of non-hazardous and hazardous waste to be managed. Ensure that contractors handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following GIIP for the waste being handled. Ensure that waste is stored in a manner that prevents the commingling or contact between incompatible wastes, and allows 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> ESMP Waste Management Plan Soil Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>for inspection between containers to monitor leaks or spills (Examples include sufficient space between incompatibles or physical separation such as walls or containment curbs).</p> <ul style="list-style-type: none"> • Ensure storage in closed containers/area away from direct sunlight, wind and rain. • Ensure construction of secondary containment systems with materials appropriate for the wastes being contained and adequate to prevent loss to the environment. • Ensure that secondary containment is included wherever liquid wastes are stored in volumes greater than 220 liters. The available volume of secondary containment will be at least 110 percent of the largest storage container, or 25 percent of the total storage capacity (whichever is greater), in that specific location. • Ensure that adequate ventilation is provided where volatile wastes are stored. • Access to hazardous waste storage areas will be limited to employees who have received proper training • The area will be clearly identified (labeled) and demarcated including documentation of its location on a facility map or site plan. • Periodic inspections of waste storage areas will be conducted and the findings will be documented. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • ESMP and Waste Management Plan will be developed and implemented by the Contractor by covering relevant E&S issues and all personnel will receive the necessary training on waste management. • The requirements of the applicable regulations related to waste management will be followed for the management of all waste generated as a result of the project activities. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Separation of wastes (hazardous / non-hazardous, recyclable / nonrecyclable) and temporary storage in designated storage areas will be ensured. Designated storage areas will be available at the camp site, and temporary storage areas will also be established along the route at necessary locations. Packaging wastes made of plastic, metal, glass, paper and board, composite and similar materials will be collected separately from other wastes and given to Packaging Waste Collection, Segregation and Recovery Facilities licensed by MoEUCC. Wastes are not spilled out of areas other than those reserved for this purpose will be ensured and all necessary waste management training and periodic repetition of these trainings will be provided to all personnel. In cases when tires of the vehicles to be changed during construction activities; end-of-life tires will be delivered to the companies that distributes and sells tires via the authorized transportation companies in accordance with the Regulation on Control of End-of Life Tires. No waste should be disposed of any receiving environment or burned at the construction site. Waste disposal agreements will be made with the municipality and licensed recycling / disposal firms. Hazardous wastes will be separated from other waste streams at the source to prevent cross-contamination. After temporarily storing hazardous wastes in designated areas with appropriate containment measures to prevent leaks or spills, they will be disposed of at licensed facilities. Hazardous waste deliveries will be made via MoTAT (Mobile Waste Tracking System) by ensuring selection of licensed recycling/recovery/disposal facilities. 		
	Management of Wastewater				
	Wastewater generation	Local Communities	<u>General Measures</u>	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> ESMP Wastewater

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	(such domestic wastewater, wastewater from construction sites, etc.)	Surface Water	<ul style="list-style-type: none"> • Ensure water is used efficiently to reduce the amount of wastewater generation • Ensure that waste minimization and process modification, including reduction of the use of hazardous substances, is carried out to reduce the load of pollutants requiring treatment. • non-leaking septic systems are to be used for wastewater disposal and treatment, ensure that the following requirements are met: <ul style="list-style-type: none"> ○ Properly designed and installed in accordance with national legislation and guidance to prevent any hazard to public health or contamination of land, surface or groundwater. ○ Well maintained to allow effective operation. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Discharge of any kinds of untreated wastewater and waste to receiving bodies (soil and surface waters), drain fields, separate storm drainage and interception channels will be prevented. • A septic tank will be installed on site for wastewater originating from personnel. Wastewater generated will be disposed of from the site via a sewage tanker at regular intervals. • All chemical storage tanks, including those for diesel fuel and dangerous liquid waste, will be stored in secondary containment structures with a capacity of up to 110% of the volume of material stored, in compliance with construction site requirements. Additionally, spill kits or absorbent pads should be readily available near storage areas. • 		Management Plan
	Management of Chemicals and Hazardous Materials				
	Release of	Soil	<u>General Measures</u>	<ul style="list-style-type: none"> • Sub-borrower 	<ul style="list-style-type: none"> • C-Emergency

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	hazardous materials in the event of accidents during construction	Surface water Groundwater	<ul style="list-style-type: none"> Where practicable, avoiding or minimizing the use of hazardous materials. Preventing uncontrolled releases of hazardous materials to the environment or uncontrolled reactions that might result in fire or explosion. Identify the types and the quantities of hazardous substances present in the Subproject. This information will be recorded and will include a summary table with the following information: <ul style="list-style-type: none"> Name and description (e.g. composition of a mixture) of the hazardous materials Classification (e.g. code, class or division) of the hazardous materials Internationally accepted regulatory reporting threshold quantity or national equivalent of the hazardous materials Quantity of hazardous materials used per month Characteristic(s) that make(s) the materials hazardous (e.g. flammability, toxicity) Ensure that the potential for uncontrolled reactions such as fire and explosion is analyzed. Ensure that operators are trained on release prevention, including drills specific to hazardous materials as part of emergency preparedness response training Ensure a description of response activities in the event of a spill, release or other chemical emergency, including: <ul style="list-style-type: none"> Internal and external notification procedures Specific responsibilities of individuals or groups Decision process for assessing severity of the release, and determining appropriate actions Facility evacuation routes 	<ul style="list-style-type: none"> Contractor 	<p>Response Plan</p> <ul style="list-style-type: none"> Soil Management Plan Waste Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Post-event activities such as clean-up and disposal, incident investigation, employee re-entry, and restoration of spill response equipment. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Employees will be trained regarding spills and leaks. Accidental spills and leakages will be managed through implementation of the Emergency Preparedness and Response Plan. Maintenance and repairs will be carried out on the impermeable grounds with secondary containment structure/drip trays. 		
	Management of Environmental Noise and Vibration				
	Noise and vibration generation during construction	Local communities	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Manage the potential impact of noise, selecting equipment with lower sound power levels Plan activities in consultation with communities so that noisiest activities are undertaken during periods that will result in least disturbance. Use when needed and feasible noise-control methods such as fences, barriers or deflectors. Minimize Subproject-related transportation through community areas. Ensure implementation of Subproject-specific SEP in order to address any noise-related grievance and plan/take corrective actions, where necessary. Ensure consultation with PAPs prior to the start of and during the construction activities to be conducted at this location in order to 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> SEP Noise and Vibration Management Plan

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>inform stakeholders about the scope and duration of the activities and mitigate the potential impacts for the period of construction</p> <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • All construction activities will be carried out in compliance with the noise limit values specified in the national legislation and WBG EHS Guidelines. • ESMP and Noise and Vibration Management Plan will be developed and implemented by the Contractor by covering relevant E&S issues. and all personnel will receive the necessary training on noise management. • If any comment related with noise or vibration is received through the Grievance Mechanism, the complaint will be evaluated, and the necessary corrective preventive actions will be implemented. • Temporary noise barriers or acoustic screens will be installed along the construction perimeter closest to sensitive receptors, particularly near Mimar Sinan High School and Huma Hospital. • Machinery, equipment and vehicles with lower sound power levels and sound reduced models will be preferred, using newer and electrically driven models. • Maintenance of construction vehicles will be conducted regularly by means of a regular vehicle maintenance and repair program which is also recommended by the manufacturer. • When necessary, to protect the employees from the noise and vibration caused by machinery and equipment; work will be carried out in accordance with the provisions of the "Occupational Health and Safety Law No. 6331" and necessary measures (such as providing ear protection PPE) will be taken to protect workers from risks that may arise from health and safety, especially hearing risks, as a result of exposure to noise/vibration. • Installing silencers and mufflers on exhaust systems to reduce noise generated by equipment. . 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
ESS4 - Community Health and Safety					
	Infrastructure design and safety				
	Risks posed to the public while accessing Subproject facilities (such as physical trauma associated with failure of structures, burns and smoke inhalation from fire, injuries suffered as a consequence of falls or contact with heavy equipment, etc.)	Local Communities	<u>General Measures</u> <ul style="list-style-type: none"> Design and construct the structural elements of the Subproject in accordance with national legal requirements, the EHSs and other GIIP, taking into consideration safety risks to third parties and affected communities. Ensure that the structural elements of the Subproject are designed and constructed by competent professionals, and certified or approved by competent authorities or professionals. Ensure that the structural design takes into account climate change considerations, as appropriate. Ensure incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, wind, flooding, landslides and fire. Ensure design the Subproject structures in accordance with engineering and design criteria mandated by site-specific risks, including but not limited to seismic activity, slope stability, wind loading, and other dynamic loads. Ensure application of nationally regulated or internationally recognized buildings codes to ensure structures are designed and constructed in accordance with sound architectural and engineering practice, including aspects of fire prevention and response. Ensure that the engineers and architects responsible for designing and constructing facilities, building, plants and other structures certify the applicability and appropriateness of structure criteria employed. 	<ul style="list-style-type: none"> Contractor Sub-borrower 	<ul style="list-style-type: none"> Feasibility Report
	Traffic and Road Safety				

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	Traffic and road safety risks during construction (such as traffic related injuries and fatalities due to traffic accidents, collisions, etc.)	Local Communities in Nearest Settlements including Vulnerable/Disadvantaged Groups/ Individuals	<p><u>General Measures</u></p> <ul style="list-style-type: none"> • Manage the potential impact of increase in traffic, coordination with emergency responders to ensure that appropriate first aid is provided in the event of accidents • Ensure use of locally sourced materials, whenever possible, to minimize transport distances. Locating associated facilities such as worker camps close to project sites and arranging worker bus transport to minimizing external traffic • Ensure employing safe traffic control measures, including road signs and flag persons to warn of dangerous conditions • Develop sub-Project-specific SEP will be implemented to address any construction transport/traffic related grievance and plan/take corrective actions in line with the Grievance Mechanisms, where necessary. As part of SEP, local communities will be informed about the construction sites, traffic restrictions to be applied for health and safety purposes and duration of such restrictions. • Emphasizing safety aspects among drivers • Improving driving skills and requiring licensing of drivers • Adopting limits for trip duration and arranging driver rosters to avoid overtiredness • Avoiding dangerous routes and times of day to reduce the risk of accidents • Ensure use of speed control devices (governors) on trucks, and remote monitoring of driver actions <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • Roads passing through settlements such as Battalgazi, Hunat, Tacettinveli, Esenyurt, Gültepe, Erenköy will be avoided whenever alternative routes are available. If Subproject traffic routing through the settlements is not avoidable, all necessary traffic management measures will be taken. The local communities and if necessary local authorities will be informed about the transportation routes and schedule 	<ul style="list-style-type: none"> • Sub-borrower • Contractor 	<ul style="list-style-type: none"> • Traffic Management Plan • SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Scheduling of traffic will be undertaken to avoid the peak hours on the local road network wherever practicable (e.g. early in the morning with the daylight). Scheduling information and planned traffic disruptions will be communicated well in advance to all related parties including authorities, local communities and nearby businesses. Investigate all construction areas and construction access routes for potential community interaction—particularly near sensitive receptors such as schools, children’s parks, and healthcare facilities. These receptors will be identified and indicated on relevant project maps. Based on these findings, site-specific measures will be developed and implemented, including but not limited to improved signage, speed reduction measures, increased visibility, and mandatory training for all drivers and equipment operators prior to the commencement of construction activities. Access roads to the quarry and the Yılanlı dump site will be subject to separate safety assessments, particularly due to their proximity to populated areas and public institutions. Any observed safety risks—such as poor visibility, high dust levels, or pedestrian conflict—will be addressed through site-specific measures, including traffic calming, signage, flagmen deployment, and coordination with the Kayseri Metropolitan Municipality and relevant departments. The Contractor is responsible for implementing safety measures along these access roads under the supervision of the Construction Supervision Consultant. These access routes will also be integrated into the overall Traffic Management Plan. Implement access restriction at construction areas and access routes, by specifying restricted zones, (i.e. dangerous routes), fencing, barriers, etc. Construction site access points located near public institutions (e.g., schools, health centers, mosques) must be staffed with 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>trained security personnel to monitor unauthorized entry and assist the public when needed.</p> <ul style="list-style-type: none"> • Before starting construction in areas with high community interaction (especially near schools and parks), a site-specific access and interaction assessment must be conducted. Based on the results, safe pedestrian corridors with adequate signage, child-height protection barriers, and protective scaffolding tunnels must be established. • All changes to access routes and construction activities must be communicated to the public through information desks at critical community locations, announcements via local mukhtars, community boards, and channels defined in the SEP. • Before starting any construction work near child-sensitive areas, a Child Safety Checklist must be completed, including assessment of signage visibility, access control, pedestrian segregation, and adult supervision. • All barriers and signs installed to delineate dangerous areas must be inspected daily, and any damage or displacement must be immediately corrected. • Flagmen and mobile safety teams must be deployed and trained specifically for child safety awareness in school and park zones. These personnel will guide pedestrians, especially vulnerable individuals, and monitor crowd safety during peak hours. • Visual maps showing restricted and alternative access routes will be posted at community hubs such as schools, markets, and mosques to ensure public understanding and awareness. • Construction corridors and hazardous zones must be securely fenced and clearly marked with warning signage, while safe pedestrian corridors must be delineated using barriers, tapes, and physical separation to prevent unauthorized or accidental entry 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • In areas close to schools, parks, or playgrounds, additional signage and child-height barriers will be installed. • Daily inspections will be conducted to ensure that safety equipment and barriers remain intact and effective. • Access to essential public areas such as schools, mosques, and community centers will be maintained via clearly marked alternative pedestrian routes. • These routes will be communicated in advance through local mukhtars, community boards, and stakeholder engagement channels established in the SEP. • Temporary pedestrian detours and vehicle rerouting plans will be developed and implemented in coordination with the municipality. • Informational signage and trained flagmen will be deployed to guide the public safely. • A visual map of restricted zones and alternative access routes will be displayed at key community locations. • The Subproject's Grievance Mechanism will be used to monitor and promptly address any access-related concerns, with particular attention to the safety of children and vulnerable groups. • Avoid passage of construction traffic through the settlements, whenever alternative roads are present. • Construction traffic will be redirected through designated one-way or dual-lane alternative routes to minimize congestion and vehicle-pedestrian interaction within community areas. • Temporary pedestrian paths will be constructed in the K1 and K2 work zones to ensure uninterrupted and safe access for residents during construction activities. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> • Temporary access roads and road widening will be implemented to improve traffic capacity and ensure safe and continuous vehicle flow. • A parking ban will be enforced on alternative routes between 06:00 and 20:00 to prevent obstruction and maintain full road capacity. • Traffic signal systems will be installed at five key intersections (as identified in the Traffic Management Plan) within the project impact area to ensure controlled and safe traffic flow. • Traffic and municipal police will be deployed at critical points during peak hours to guide vehicles and enhance overall traffic safety. • All necessary signage and warning signs will be installed along main and alternative roads to ensure clear navigation for drivers and pedestrians. • The public will be informed in advance of traffic changes through posters, brochures, billboards, and the websites of Kayseri Metropolitan and Melikgazi Municipalities. Information brochures will also be distributed to local mukhtars' offices. • Dynamic traffic monitoring and adaptive management systems will be applied by regularly analyzing traffic densities and optimizing flow patterns accordingly. • Implement speed limits at all construction sites, especially in and around school areas, to ensure the safety of children and other vulnerable pedestrians. • Roads passing through settlements within the project area of influence will be avoided whenever feasible. If routing through these settlements is unavoidable, appropriate traffic management measures (e.g. reduced speed, warning signage, dedicated crossing points) will be implemented. Local 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>residents and, if necessary, relevant local authorities will be informed about the transportation routes and schedules.</p> <ul style="list-style-type: none"> Construction-related traffic will be scheduled to avoid peak hours on the local road network, particularly during early morning hours. Any planned traffic disruptions will be communicated in advance to affected parties, including local authorities, businesses, and communities located within the project's area of influence. • Access roads to the quarry and the Yılanlı dump site will be subject to separate safety assessments, particularly due to their proximity to populated areas and public institutions. Any observed safety risks—such as poor visibility, high dust levels, or pedestrian conflict—will be addressed through site-specific measures, including traffic calming, signage, flagmen deployment, and coordination with the Kayseri Metropolitan Municipality and relevant departments. The Contractor is responsible for implementing safety measures along these access roads under the supervision of the Construction Supervision Consultant. These access routes will also be integrated into the overall Traffic Management Plan. 		
	Pedestrian safety risks during construction (e.g. serious injury from collisions with moving vehicles, etc.)	Settlements in the area of influence	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Development of a Traffic Management Plan, which also addresses pedestrian safety risks during construction. Minimize pedestrian interaction with construction vehicles and routes. Provision of safe corridors along the road alignment and construction areas for pedestrians and bicyclists during construction. Installation and maintenance of speed control and traffic calming devices at pedestrian crossing areas during construction. Ensure collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other 	<ul style="list-style-type: none"> Sub-borrower Contractor 	<ul style="list-style-type: none"> Traffic Management Plan SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>locations where children may be present. Collaborating with local communities on education about traffic and pedestrian safety (e.g. school education campaigns).</p> <ul style="list-style-type: none"> • Installation and maintenance of all signs, signals, markings, and other devices used to regulate traffic, specifically those related to pedestrian facilities or bikeways during construction. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • At K1 and K2 intersections, protected pedestrian corridors will be installed using scaffolding tunnels and visible signs, particularly around school zones and market areas. • Temporary pedestrian crossing signals will be placed at junctions with high pedestrian traffic, including the K3 eastern leg where community movement is dense. • Raised speed bumps and zebra crossings with reflective paint will be installed near key community access points such as the mosque and health center near K2. • Signage indicating "Slow – Children Crossing" will be installed on roads approaching school zones. • Implement speed limits at all construction sites. • Prepare a driver training plan to ensure that all drivers (including the sub-contractors' drivers) are provided with the traffic and road safety trainings. • Prepare driver code of conduct and the disciplinary procedures • Evaluate training plan's performance and effectiveness and make the required improvements when necessary • Provide regular safe driving training courses to all drivers • Provide information to the local settlements and stakeholders on road safety, traffic measures and Project health and safety measures 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Provide health and safety information related to the Project CHS risks to children, elderly, women, non-Turkish speakers, disabled people, illiterate PAPs living in the Project AoI including pedestrian safety. 		
	Emergency Preparedness and Response				
	<p>Risks and impacts on communities due to potential emergency events during construction (unanticipated incidents, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons, including failure to implement operating procedures that are designed to</p>	Local Communities Workers	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Develop and implement a Subproject-specific Emergency Preparedness and Response Plan addressing emergency events relevant to the construction phase of the Subproject. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Local communities identified within the Area of Influence (AoI), will be notified using appropriate communication tools (e.g., telephone call lists, vehicle-mounted speakers) in case of emergencies related to project activities or construction sites that may pose a risk to them. Notifications will include the nature of the emergency, recommended protective actions, and available support, and will be delivered through trained personnel of the Contractor. A detailed stakeholder-specific communication protocol is outlined in the Stakeholder Engagement Plan (SEP), including the list of settlements to be informed, methods and timing of information dissemination. The Sub-borrower will cooperate with relevant authorities both in emergency preparedness and response, ensuring alignment with local institutional protocols. 	<ul style="list-style-type: none"> Contractor Sub-borrower 	<ul style="list-style-type: none"> Emergency Preparedness and Response Plan SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	prevent their occurrence, extreme weather or lack of early warning, traffic accidents, structural failures, etc.).				
	Security Personnel				
	Risks posed by these security arrangements to those within and outside the Subproject site during construction	Construction site Local Communities	<u>General Measures</u> <ul style="list-style-type: none"> • Ensure that the risks posed by the security arrangements to those within and outside the Subproject site are assessed when direct or contracted workers are retained to provide security to safeguard Subproject-related personnel and properties. • Ensure that security arrangements of the Subproject are guided by the principles of proportionality and GIIP, and by applicable national legislation, in relation to hiring, rules of conduct, training, equipping, and monitoring of such security workers. • Ensure that the use of force by direct or contracted workers is not sanctioned in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat. • Ensure that (i) reasonable inquiries are made to verify that the direct or contracted workers retained within the scope of the Subproject to provide security are not implicated in past abuses; (ii) security personnel are trained adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct toward workers and affected communities; and (iii) security personnel are required to 	Sub-borrower Contractor	ESMP SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<p>act within the applicable national legislation and any requirements set out in Project's ESCP and Subproject's ESAP.</p> <ul style="list-style-type: none"> Ensure that all allegations of unlawful or abusive acts of security personnel are reviewed, necessary actions are taken by appropriate parties to prevent recurrence and, where necessary, unlawful and abusive acts are reported to the relevant authorities. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Legal inquiries will be conducted during the hiring process of security personnel to check for competency. Training will be provided to security personnel. The training will ensure that force is used only for preventive and defensive purposes and in proportion to the threat. Any grievance from local communities regarding the inappropriate conduct of security forces will be investigated immediately. 		
ESS5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement					
	Grievance management	State Treasury Kayseri Metropolitan Municipality Melikgazi Municipality Private landowners (4 parcels 83 shareholders)	<ul style="list-style-type: none"> Ensure that a grievance mechanism for the Subproject is in place, in accordance with ESS10 as early as possible in subproject development to address specific concerns about compensation, relocation or livelihood restoration measures raised by displaced persons (or others) in a timely fashion. <p>All land acquisition processes have been completed, including the partial expropriation and compensation procedures for 4 private parcels.</p> <p>Direct partial expropriation method (Article 8 of Law No. 2942) was applied to all privately owned parcels, and payments were made in accordance with national legislation.</p>	Sub-borrower Contractor	SEP
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources					
	Impacts on habitats	Construction Site	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Siting roads and support facilities to avoid natural and critical habitats utilizing existing transport corridors whenever possible. 	Sub-borrower Contractor	ESMP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
			<ul style="list-style-type: none"> Minimizing removal of native plant species, and replanting of native plant species in disturbed areas. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Limit clearing strictly to necessary areas so as to minimize the destruction of flora and fauna. <p>Within the scope of the subproject, in order to minimize damage to flora and fauna, site clearance and excavation activities will be strictly limited to areas that are essential for construction. In this context, the translocation of transplantable native trees and ecologically valuable shrub species within the existing vegetation cover is planned. A qualified specialist (Landscape Architect and Agricultural Engineer) within the municipality will be involved in the translocation process. Prior to implementation, a field inspection will be carried out to identify any species suitable for translocation, as well as to check for the presence of bird nests; if any active nests are found, the removal process will be postponed. A pre-removal field inspection will be conducted by a qualified specialist (Veterinarian) within the municipality to detect the presence of active nests. The removal will be carried out using appropriate technical equipment, ensuring no damage to the root systems, and each plant's root ball will be preserved during relocation. The plants will then be transported to designated new locations in accordance with the soil type and species-specific requirements. The survival rates and development of the transplanted plants will be monitored by the contractor and the Municipality; if necessary, maintenance measures such as irrigation, support, or replanting will be implemented.</p>		
	Habitat alteration, impact on local flora and fauna	Tree removal, dust, traffic, etc.	<ul style="list-style-type: none"> To mitigate risks to bird nests, tree removal operations will be carried out outside the breeding/nesting season (typically March–July). A pre-removal field inspection will be conducted by a qualified specialist (Veterinarian) within the municipality to detect the 	Sub-borrower Contractor	ESMP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure		Responsible Parties	Relevant Plans/Procedures
			<p>presence of active nests. If any are found, removal will be postponed or protective measures will be applied in accordance with the species' needs.</p> <ul style="list-style-type: none"> Trees will be carefully removed using specialized equipment to prevent damage and will be replanted in designated areas. To protect biodiversity, chemical herbicides will be avoided; biological, mechanical, or thermal vegetation control methods will be applied instead. <p>Only native species will be used for replanting; invasive species will be strictly avoided.</p>			
	Risk of negative impacts on ecosystem services during construction	Dust, waste, traffic speed	<ul style="list-style-type: none"> Speed limits will be enforced in operational areas to reduce risks related to dust emissions and wildlife crossings. Wastewater and solid waste will be managed using leak-proof containment and appropriate disposal systems. The survival rate of transplanted trees will be monitored, and additional maintenance will be carried out if necessary. Vegetation along the road corridor will be structured with smaller plants near the road and larger trees further away to support a variety of species and enhance habitat diversity. 	Sub-borrower Contractor	ESMP	
ESS8 - Cultural Heritage						
	Impacts on tangible cultural heritage	Döner Tomb Emir Ali Tomb Industrial Vocational High School B-Block Mechanical Drawing Workshop Industrial Vocational	<ul style="list-style-type: none"> Protection and Information Equipment: Information boards, occupational safety equipment, and safety barriers marking the construction site boundaries will be installed by Kayseri Metropolitan Municipality to protect cultural heritage sites. Hazardous Areas Barricading: All open excavations, material stockpiles, and structures, facilities, or equipment 	Contractor Subborrower		ESMP Chance Find Procedure CHMP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
		High School Foundry Kartal Martyrs' Cemetery	<p>that may pose hazards will be surrounded by barricades with warning signs to protect workers and the public</p> <ul style="list-style-type: none"> • Dust and Pollution Control: Regular watering will be conducted, chemical dust suppressants will be used, machinery will be protected with ventilated dust filters, vehicle and equipment maintenance will be regularly performed, exhaust emissions will be controlled, and contamination of drainage and sanitary wastewater will be prevented. • Management of Safety Barriers: The construction, removal, and transportation of safety barriers will be carried out by the contractor. Barriers will be dismantled and removed from the site upon completion of the works. • No construction work will commence without the installation of safety barriers. If barriers are not installed, Kayseri Metropolitan Municipality will impose daily monetary penalties. • Continuous Supervision and Monitoring: The effectiveness of these mitigation measures will be continuously monitored through inspection and supervision activities conducted by Kayseri Metropolitan Municipality. • Establishment of Buffer Zones: In order to protect the Kartal Martyr's Cemetery, Döner Tomb and other nearby cultural heritage assets from adverse impacts that may result from construction, 1.5-meter buffer zones will be established around these assets. • Procedures to Prevent Damage During Construction: Procedures will be implemented to prevent vibration, dust, and accidental damage during excavation, tunneling, and other construction activities • Compliance with Permits and Inspections: Construction will comply with permits issued by the Ministry of Culture and Tourism Kayseri Regional Board for the Protection of Cultural Heritage, with ongoing supervision by relevant authorities. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
	Chance finds	Chance Finds to be encountered	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Implement the Subproject-specific Chance Finds Procedure (Annex G) in case previously unknown cultural heritage is encountered during Subproject activities. Include the Chance Finds Procedure in all contracts relating to construction (excavation, demolition, earth movement, etc.). Ensure all relevant Subproject personnel receive training on the Chance Finds Procedure. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> As stipulated by the relevant authority correspondence, ensure compliance with site-specific cultural heritage obligations, including the integration of the requirements into contractor responsibilities. Training on Chance Finds Procedure and Cultural Heritage Management Plan (CHMP) will be provided to personnel, with roles and responsibilities clarified based on official consultations. In case of impact on any tangible cultural heritage resources identified during construction, mitigation will be conducted in line with the CHMP and the Chance Finds Procedure (Annex G), including immediate cessation of works at the find location, securement of the area, notification of relevant authorities, expert assessment, and implementation of appropriate conservation or documentation measures before resuming activities. 	Contractor Subborrower	Chance Find Procedure CHMP
ESS10 - Stakeholder Engagement and Information Disclosure					
	Risks associated with stakeholder engagement	Small Businesses within the Subproject Impact Area: Mega Market, Duru Butcher, Şahmar Rent A Car, Şahmar Patisserie, Altuntaş Textile, Öz Auto Tire, Öz Men's Hairdresser Salon,	<ul style="list-style-type: none"> Implement the Subproject-specific Stakeholder Engagement Plan (SEP) during the construction phase. Disclose Subproject information in line with the SEP to allow stakeholders to understand the risks and impacts of the Subproject, and potential opportunities. Ensure regular communication with vulnerable groups (e.g., low-income households, elderly, migrants) and provide accessible channels for their participation. 	Contractor Subborrower	SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
		<p>Furkan Trade, Aras Cargo, Son Auto Tire, Sevinçer Steak Tartar A la turca, Aktam Tire, Sofa Curtain, Fat Kaplan, Vizyon Construction, Karatercan/Namizen Construction, Bağdat Pick/Knife, Büyük Şimşitçi Meat</p> <p>Residents and Mukhtars within the Impact Area: Mukhtar and residents of Battalgazi Neighborhood, Mukhtar and residents of Hunat Neighborhood, Mukhtar and residents of Tacettinveli Neighborhood, Mukhtar and residents of Esenyurt Neighborhood, Mukhtar and residents of Erenköy Neighborhood, Mukhtar and residents of Gültepe Neighborhood,</p> <p>A total of 83 shareholders from private parcels (664/176, 664/178, 664/179, 664/181)</p> <p>Institutions: Merkez Vocational and Technical Anatolian High School, Recep Tayyip Erdoğan National Garden Management, Murat Kantarcı Science and Art</p>	<ul style="list-style-type: none"> Coordinate with local authorities and community leaders to facilitate effective and inclusive engagement. Monitor stakeholder feedback continuously and adapt engagement methods accordingly to address emerging concerns promptly. 		

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
		Center, Anadolu College Primary and Secondary School.			
	Risks associated with grievance management	<p>Small Businesses within the Subproject Impact Area: Mega Market, Duru Butcher, Şahmar Rent A Car, Şahmar Patisserie, Altuntaş Textile, Öz Auto Tire, Öz Men's Hairdresser Salon, Furkan Trade, Aras Cargo, Son Auto Tire, Sevinçer Steak Tartar A la turca, Aktam Tire, Sofa Curtain, Fat Kaplan, Vizyon Construction, Karatercan/Namizen Construction, Bağdat Pick/Knife, Büyük Şimşitçi Meat</p> <p>Residents and Mukhtars within the Impact Area: Mukhtar and residents of Battalgazi Neighborhood, Mukhtar and residents of Hunat Neighborhood, Mukhtar and residents of Tacettinveli Neighborhood, Mukhtar and residents of Esenyurt Neighborhood, Mukhtar and residents of Erenköy Neighborhood, Mukhtar and residents of Gültepe Neighborhood,</p>	<ul style="list-style-type: none"> Implement the Subproject-specific Grievance Mechanism developed as part of the SEP. Ensure timely response and resolution of grievances, including those from vulnerable and marginalized groups. Maintain transparent records of grievances and actions taken. Facilitate multiple accessible channels for grievance submission, including anonymous options. <p>Coordinate grievance handling with relevant authorities and institutions to ensure compliance with national regulations and ESS10 requirements.</p>	Contractor Subborrower	SEP

No	Risk and Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Relevant Plans/Procedures
		<p>A total of 83 shareholders from private parcels (664/176, 664/178, 664/179, 664/181)</p> <p>Institutions: Merkez Vocational and Technical Anatolian High School, Recep Tayyip Erdoğan National Garden Management, Murat Kantarcı Science and Art Center, Anadolu College Primary and Secondary School.</p>			

4.3.Operation ESMP Matrix

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
ESS2 - Labor and Working Conditions					
	Risks associated with labor and working conditions	Subborrower O&M Workers	<u>General Measures</u> <ul style="list-style-type: none"> • Develop and implement a Subproject-specific Labor Management Plan for the operation phase. • Ensure that the Subproject workers are provided with information and documentation that is clear and understandable regarding their terms and conditions of employment. The information and documentation will set out their rights under national labor and employment law (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from the requirements of ESS2. • Ensure that information and documentation regarding employees' terms and conditions of employment is provided at the beginning of the working relationship and when any material changes to the terms or conditions of employment occur. • Ensure that the Subproject workers are paid on a regular basis as required by national legislation and the Subproject-specific LMP. • Ensure that the Subproject workers are provided with adequate periods of rest per week, annual holiday and sick, maternity and family leave, as required by national legislation and the Subproject-specific LMP. • Ensure that the decisions relating to the employment or treatment of Subproject workers are not made on the basis of personal characteristics unrelated to inherent job requirements. • Ensure that the employment of Subproject workers is based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of 	Subborrower	<ul style="list-style-type: none"> • Labor Management Plan • Labor Management Procedure • SEP

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<p>employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.</p> <ul style="list-style-type: none"> Measures will be taken to prevent employment or engagement of children under the minimum age established in CDRC Project's LMP³⁰. Measures will be taken in accordance with the Subproject specific Labor Management Plan to prevent use of forced labor³¹ in connection with the Subproject. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Grievance Mechanism will be revised in accordance with the ESMP The Grievance Mechanism, which also covers the operation phase, will be disclosed to all Project employees and relevant stakeholders. 		
	OHS – Moving Equipment and Traffic Safety	<p>Subborrower O&M Workers</p> <p>Contractor O&M Workers</p>	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Development of a Traffic Management Plan for road repairs that includes measures to ensure work zone safety for maintenance workers and the traveling public. Establishment of work zones to separate workers on foot from traffic and equipment by: <ul style="list-style-type: none"> Routing of traffic to alternative roads when possible. Closure of lanes and diversion of traffic to the remaining lanes if the road is wide enough (e.g. rerouting of all traffic to one side of a multi-lane roads). Where worker exposure to traffic cannot be completely eliminated, use of protective barriers to shield workers from traffic vehicles, or installation of channeling devices (e.g. traffic cones and barrels) to delineate the work zone 	Subborrower	<p>OHS Management Plan</p> <p>Traffic Management Plan</p>

³⁰ According to the Project LMP, workers under the age of 18 will not be engaged by the Project.

³¹ Forced labor consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. Work is on a voluntary basis when it is done with the free and informed consent of a worker. Such consent must exist throughout the employment relationship and the worker must have the possibility to revoke freely given consent. In particular, there can be no "voluntary offer" under threat or other circumstances of restriction or deceit. To assess the authenticity of a free and informed consent, it is necessary to ensure that no external constraint or indirect coercion has been carried out, either by an act of the authorities or by an employer's practice.

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<ul style="list-style-type: none"> ○ Regulation of traffic flow by warning lights, avoiding the use of flaggers if possible ○ Design of the work space to eliminate or decrease blind spots • Reduction of maximum vehicle speeds in work zones. • Training of workers in safety issues related to their activities, such as the hazards of working on foot around equipment and vehicles. • Safe practices for work at night and in other low-visibility conditions, including use of high-visibility safety apparel and proper illumination for the work space (while controlling glare so as not to blind workers and passing motorists). 		
	OHS - Chemical Hazards	Subborrower O&M Workers Contractor O&M Workers	<u>General Measures</u> <ul style="list-style-type: none"> • Use of millers and pavers with exhaust ventilation systems and proper maintenance of such systems to maintain worker exposure to crystalline silica (millers and grinders) and asphalt fumes (pavers) below applicable occupational exposure levels. • Use of the correct asphalt product for each specific application, and ensuring application at the correct temperature to reduce the fuming of bitumen during normal handling. • Maintenance of work vehicles and machinery to minimize air emissions. • Use of extenders or other means to direct diesel exhaust away from the operator. • Provision of adequate ventilation in tunnels or other areas with limited natural air circulation. • Use of protective clothing when working with cutbacks (a mixture of asphalt and solvents for the repair of pavement), diesel fuel, or other solvents. • Use of dustless sanding and blasting equipment and special containment measures for paint removal activities. • Avoiding the use of lead-containing paint and using appropriate respiratory protection when removing paints (including those 	Subborrower	OHS Management Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			containing lead in older installations) or when cutting galvanized steel.		
	OHS-Noise	Subborrower O&M Workers Contractor O&M Workers	<u>General Measures</u> <ul style="list-style-type: none"> Ensure use of personal hearing protection by personnel exposed to noise from vehicular traffic and maintenance vehicles Implement work rotation programs to reduce cumulative exposure to noise 	Subborrower	OHS Management Plan
	Risks associated with management of employee grievances	Subborrower O&M Workers Contractor O&M Workers	<ul style="list-style-type: none"> Develop and implement a Subproject-specific Labor Management Plan, including grievance mechanism for Subproject employees (covering all direct and contracted workers) to raise workplace concerns during the operation phase. Ensure that all direct and contracted workers are informed of the grievance mechanisms at the time of recruitment and the measures put in place to protect them against any reprisal for its use. Ensure that measures are put in place to make the grievance mechanism easily accessible to all Subproject employees. 	Subborrower	<ul style="list-style-type: none"> Labor Management Plan Labor Management Procedure SEP
ESS3 - Resource Efficiency and Pollution Prevention and Management					
	Management of Air Pollution				
	Emissions to air during operation	Local Communities	<ul style="list-style-type: none"> Project Grievance Mechanism will be implemented. If any comment related with air quality is received through the Grievance Mechanism, the complaint will be evaluated and where necessary corrective preventive actions will be implemented. Engagement with local communities will be performed to understand their concerns and gather feedback on air quality related issues. 	Subborrower	Air Quality Management Plan SEP
	Management of Wastes				
	Generation of non-hazardous and hazardous waste during operation	Surface Water Soil	<u>General Measures</u> <ul style="list-style-type: none"> Incorporating recyclable materials (e.g. glass, scrap tires, certain types of slag and ashes) to reduce the volume and cost of new asphalt and concrete mixes. 	Subborrower	Waste Management Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<ul style="list-style-type: none"> Collecting road litter or illegally dumped waste and managing it according to the national Waste Management Regulation and GIIPs. Manage chemicals inventories (e.g. paint, etc.) to avoid having to dispose of large quantities of unused product; manage any obsolete products as hazardous waste in accordance with the national Waste Management Regulation and GIIPs. Collecting animal carcasses in a timely manner and disposing through prompt burial or other environmentally safe methods. Composting of vegetation waste for reuse as a landscaping fertilizer. Managing sediment and sludge removed from storm drainage systems maintenance activities as a hazardous or non-hazardous waste in accordance with the national Waste Management Regulation and GIIPs based on an assessment of its characteristics. Management of all removed paint materials suspected or confirmed of containing lead as a hazardous waste. Use of a system to collect paint waste when removing old paint containing lead. Grinding of removed, old road surface material and re-use in paving, or stockpiling the reclaim for road bed or other uses. Old, removed asphalt may contain tar and polycyclic aromatic hydrocarbons and may require management as a hazardous waste. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Recycling of road resurfacing waste should be conducted where feasible, by using the waste in reclaimed asphalt pavement, reclaimed concrete material, or as a base. Lead free paints will be used for maintenance activities. 		
	Management of Stormwater				
	Stormwater runoff, contaminated with oil and grease, metals, particulate matter, deicing salts, and other pollutants released by vehicles	Surface Water	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Use of stormwater management practices that slow peak runoff flow, reduce sediment load, and increase infiltration 	Subborrower	ESMP

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
	on road, leading to pollution of water resources		<ul style="list-style-type: none"> Regular inspection and maintenance of permanent erosion and runoff control features. Paving in dry weather to prevent runoff of asphalt or cement materials. Use of proper staging techniques to reduce the spillage of paving materials during the repair of potholes and worn pavement. This may include covering storm drain inlets and manholes during paving operations; using erosion and sediment control measures to decrease runoff from repair sites; and utilizing pollution prevention materials (e.g. drip pans and absorbent material on paving machines) to limit leaks and spills of paving materials and fluids. Reducing the amount of water used to control dust, and using sweeping practices rather than washing. Collecting and returning swept material to aggregate base or disposing as solid waste. Avoiding the generation of contaminated runoff from cleaning of asphalt equipment by substituting diesel with vegetable oil as a release and cleaning agent; containing cleaning products and contaminated asphalt residues; scraping before cleaning; and conducting cleaning activities away from surface water features or drainage structures. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> Surface runoff along the ways should be collected using ditches and diversion channels, and the collected water should be diverted to the nearest receiving water bodies. 		
	Management of Chemicals and Hazardous Materials				
	Release of hazardous materials in the event of accidents during operation	Surface water Soil	<p><u>General Measures</u></p> <ul style="list-style-type: none"> If road accidents occur that may result in spills and leakages, the Emergency Preparedness and Response Plan will be implemented to effectively manage any potential contamination. 	Subborrower	Emergency Preparedness and Response Plan
	Management of Environmental Noise and Vibration				

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
	Noise and vibration generation during operation	Local Communities Workers	Site-specific Measures <ul style="list-style-type: none"> Subproject Grievance Mechanism will be implemented. If any comment related with noise or vibration is received through the Grievance Mechanism, the complaint will be evaluated and where necessary corrective preventive actions will be implemented. Engagement with local communities as identified in the SEP will be performed to understand their concerns and gather feedback on noise/vibration-related issues. 	Subborrower	Noise and Vibration Management Plan SEP
ESS4 - Community Health and Safety					
	Structural Safety of Subproject Infrastructure				
	Risks posed to the public while accessing Subproject facilities (such as physical trauma associated with failure of structures, burns and smoke inhalation from fire, injuries suffered as a consequence of falls or contact with heavy equipment, etc.)	Local Communities	General Measures <ul style="list-style-type: none"> Operate and decommission the structural elements of the Subproject in accordance with national legal requirements, the EHSs and other GIIP, taking into consideration safety risks to third parties and affected communities. 	Subborrower	Feasibility Report
	Pedestrian Safety				
	Pedestrian safety risks during operation (e.g. serious injury from collisions with moving vehicles, etc.)	Local Communities	General Measures <ul style="list-style-type: none"> Development of a Traffic Management Plan, which also addresses pedestrian safety risks during operation. Provision of safe corridors along the road alignment, including tunnels and bridges (e.g. paths separated from the roadway), and safe crossings (preferably over or under the roadway) for pedestrians and bicyclists during operation. Crossing locations will take into account community preferences, including those related to convenience or personal safety (e.g. the prevalence of crime at potential crossing point locations). 	Subborrower	Traffic Management Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<ul style="list-style-type: none"> • Installation and maintenance of speed control and traffic calming devices at pedestrian crossing areas. • Installation and maintenance of all signs, signals, markings, and other devices used to regulate traffic, specifically those related to pedestrian facilities or bikeways. <p><u>Site-specific Measures</u></p> <ul style="list-style-type: none"> • All required signage (such as traffic signs, cautionary signs) and markings (traffic lines, flashing ground signage) will be installed along the route in compliance with technical specifications. • In case large-scale maintenance is required, the affected lanes will be closed to traffic, and necessary measures will be implemented to slow down the remaining traffic. • In case of large-scale oil or hazardous material spillage events, the road surface will be washed to prevent a slippery surface. • Chemical ice inhibition and de-icing (e.g., salt (NaCl), calcium chloride (CaCl₂), magnesium chloride (MgCl₂), etc.) as well as physical snow and ice removal will be performed before and after adverse weather conditions. • Additional investigation and maintenance will be conducted in potentially affected areas following natural hazards (e.g. earthquakes, flooding, etc.) and traffic accidents. • All five pedestrian crossings described along Kartal, Mustafa Kemal Paşa, and Talas Boulevards will be equipped with clearly visible road markings, pedestrian traffic signals, and warning signage. • High-visibility signage and flashing warning lights will be installed at each pedestrian crossing, particularly those near the Nation's Garden and Mustafa Kemal Paşa Boulevard, to alert approaching vehicles. 		

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<ul style="list-style-type: none"> Speed-reducing measures such as speed bumps, raised crossings, or rumble strips will be installed near pedestrian access points. Adequate lighting will be provided at each crossing to ensure visibility during nighttime and low-light conditions. Pedestrian safety barriers or guardrails will be installed to guide pedestrian movement and prevent jaywalking at undesignated locations. Tactile paving must be installed at all crossings to improve accessibility for visually impaired individuals. All pedestrian circulation routes will be regularly inspected and maintained to ensure that surface conditions, signage, and lighting remain in safe and functional condition. A public information campaign will be implemented during the initial operational period to educate nearby communities (including children and elderly residents) on the location and safe use of the new pedestrian crossings. The Grievance Mechanism will be actively used to receive and address pedestrian-related safety concerns during the operation phase. 		
	Traffic and Safety				
	Traffic and road safety risks during operation (such as traffic related injuries and fatalities due to traffic accidents, collisions, etc.)	Local Communities	<u>General Measures</u> <ul style="list-style-type: none"> Development of a Traffic Management Plan for road repairs that includes measures to ensure work zone safety for traveling public. Installation and maintenance of all signs, signals, markings, and other devices used to regulate traffic, including posted speed limits, warnings of sharp turns, or other special road conditions. Setting of speed limits appropriate to the road and traffic conditions. Design of roadways to accommodate anticipated traffic volume and flow. Maintenance of the road to prevent mechanical failure of vehicles due to road conditions. 	Subborrower	Traffic Management Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
			<ul style="list-style-type: none"> Installation of measures to reduce collisions between animals and vehicles (e.g. use of signs to alert drivers on road segments where animals frequently cross; construction of animal crossing structures; installation of fencing along the roadway to direct animals toward crossing structures; and use of reflectors along the roadside to deter animal crossings at night when vehicles are approaching). Targeting elimination of at-grade rail crossings. Targeting the use of a real-time warning system with signage to warn drivers of congestion, accidents, adverse weather or road conditions, and other potential hazards ahead. 		
	Emergency Preparedness and Response Plan				
	<p>Risks and impacts on communities due to potential emergency events during operation</p> <p>(unanticipated incidents, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons, including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning, traffic accidents, structural failures, etc.).</p>	<p>Local Communities</p> <p>Workers</p>	<p><u>General Measures</u></p> <ul style="list-style-type: none"> Preparation of an emergency preparedness and response plan in coordination with the local community and local emergency responders to provide timely first aid response in the event of accidents and hazardous materials response in the event of spills, taking into account all relevant risks including earthquakes 	Subborrower	Emergency preparedness and response plan
ESS5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement					
No land acquisition is envisaged	Not applicable.	Not applicable.	Not applicable.	Not applicable.	No land acquisition is envisaged during the operation

No	Impact Description	Receptor	Proposed Mitigation Measure	Responsible Parties	Implementation Plans
during the operation phase of the Sub-Project.					phase of the Sub-Project.
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources					
	Impacts on habitats	Flora Fauna	<u>General Measures</u> <ul style="list-style-type: none"> • Manage vegetation growth along access roads and at permanent above-ground facilities. • Remove invasive plant species and replant native species. Vegetation control should employ biological, mechanical and thermal vegetation control measures and avoid the use of chemical herbicides as much as possible. • From the edge of the road area to the boundary of the right-of-way, ensure that vegetation is structured with smaller plants near the road and larger trees further away to provide habitats for a wide variety of plants and animals. • Plant native species and remove invasive plant species. • Employ biological, mechanical, and thermal vegetation control measures where practical, and avoid the use of chemical herbicides to the extent possible. 	Subborrower	ESMP
ESS8 - Cultural Heritage					
	No impacts are anticipated during the operation phase of the Subproject.	Not applicable.	The Subproject operation will comply with the applicable requirements set by the national cultural heritage authorities.	Not applicable.	Not applicable.
ESS10 - Stakeholder Engagement and Information Disclosure					
	Communication issues with the stakeholders	Local Communities	Stakeholder Engagement Plan will be developed and implemented for the operation phase of the Project. Stakeholder Engagement Plan will be disclosed at the the municipality's web site	Subborrower	SEP

4.4. Monitoring and Reporting

The Sub-borrower will internally monitor the E&S performance of the Subproject and submit Periodic Monitoring Reports to ILBANK, in accordance with the requirements outlined in the sub-financing agreement. The reports for each monitoring period will include the following information:

- Up-to-date information on the Subproject and progress with Subproject implementation (e.g. status of construction, Subproject timeline, etc.),
- Status of compliance with legal requirements (e.g. Subproject permitting status, status and outcomes of audits conducted by national authorities, fines imposed by national authorities if any, etc.)
- Details of how the requirements of the IFI standards (e.g. WB ESSs) are being met based on compliance with Subproject-level Environmental and Social Action Plans (ESAPs),
- Incident and accident reports and statistics,
- All E&S incidents and near misses shall be notified and investigated using the standard forms provided in Annex E and Annex F. Occupational incidents are also tracked using the HS Check List (see Annex P).
- Current Subproject-level E&S organization and capacity (including information on capacity building and training),
- Progress with Subproject level stakeholder engagement activities and management of grievances, and
- Records on E&S non-conformities identified and the general status of Corrective Action Plan implementation at Subproject level (in case of non-conformities).

Key performance indicators (KPIs) of this ESMP will be monitored, verified, and evaluated within the scope of the Subproject monitoring stage. The KPIs for both construction and operation phases of the Subproject are presented in Table 4-1.

Table 4-1. Key Performance Indicators for Both Construction and Operation Phases of the Subproject

Monitoring Focus	KPI
Documentation	
Following ESMP Project specific plans will be developed and be in place.	Full compliance with Subproject's ESMP
Air Quality	
Air Quality incidents	Minimization and continued improvement in the number of the reported air quality related incidents.
Non-Compliance with air quality standards	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of air quality related community grievances
Violation on speed limit	Minimization and continued improvement in the number of reported violations on speed limit
Noise	
Noise and Vibration incidents	Minimize and continued improvement in number of reported noise and vibration related incidents
Non-Compliance with Project standards	Zero Non-Compliance Reports (NCRs) per year
Number of noise-related community grievances	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of noise related community grievances
Water / Wastewater	
Spill incident	Minimization and continued improvement in the number of the reported water quality related incidents.
Non-Compliance with Subproject standards	Zero NCRs per year
Wastewater collection system	Zero grievances per year
Groundwater levels and quality of the community/private wells	No significant adverse impact
Flood incidents	No infrastructure damage and damage to loads/humans
Wastewater and Water loss records in network	Sustainable low wastewater and water loss records
Waste	

Monitoring Focus	KPI
Waste Generation	Minimization of total waste generated Decrease in the ratio of hazardous waste generated to total waste (by contamination + by generation)
Waste Disposal	Increase in the ratio of recovered/reused/recycled waste to total waste generated
Soil Quality	
Spill incident	Minimization and continued improvement in the number of the reported soil quality related incidents
Non-Compliance with Subproject standards	Zero NCRs per year
Soil Pollution Incidents	Zero accidents per year
Number of soil-related community grievances	Zero grievances per year
Traffic	
Number of non-compliances against the mitigation controls identified in Traffic Management Plan	Decreasing number/ continuous improvement in number of reported non-compliances
Number of drivers found to be exceeding speed limits or driving unsafely	Zero exceedance per year
Number of road traffic accidents involving: Accidental injuries and deaths, Spillages (such as cargo or fuel), Wildlife-vehicle collisions.	Zero accidents per year
Number of traffic-related grievances	Zero grievances per year
Health, Safety and Environment	
% of scheduled HSE Inspection	>90
% of attendance at HSE meetings	>90
% of closing of NCRs	100
Reporting safe observations	100%
Reporting unsafe observations	100%
Reporting near misses	100%
Reporting number of incidents	100%
Reporting number of accidents	100%
Reporting day-loss	100%
% of Toolbox attending	>90
% of Risk Assessment compliance	>90
% of Legal Requirements compliance	100%
HSE training carried out to training matrix > 90% of all training to matrix	>90
% of attendance at scheduled trainings	>90
Engagement in HSE program by individual managers and supervisors	>90
Engagement in HSE program by contractor's	>90
Labor and Working Conditions	
Number of worker grievances closed out within the target timeframe	100% compliance with labor laws and regulations Zero unresolved health and safety incidents within the target timeframe 100% availability of required PPE 90% or higher worker satisfaction rate
Community Health and Safety	
Number of communicable and non-communicable diseases and injuries.	Negative Trend/No significant increase in communicable and non-communicable disease and injury rates per 1,000 residents per annum.

Monitoring Focus	KPI
Number of community health safety & security grievances from local communities as recorded in the grievance management system.	Decreasing number/ continuous improvement in number of grievances
Number of reported community health & safety incidents	Zero incidents per year
Number of reported air quality or noise incidents	Zero incidents per year
Direct and indirect threats posed by construction activities against traffic and pedestrians	Zero number of drivers found to be exceeding speed limits or driving unsafely Zero accidental injuries and deaths, Zero traffic-related grievances
Access to the Construction Site - Security Fence/ Protection Tape	Zero Number of unauthorized accesses to the Subproject area
Trainings	
Training records	Trainings on ESMP and SEP documents. Providing all trainings (including GM, GBV, SEA/SH) to all employees. 100% of scheduled training sessions conducted 80% or higher participant satisfaction rate Zero participants without completion certificates if applicable
Disclosure	
Grievance Records, Disclosure meeting participant records, ESMP, SEP, GM will be disclosed at Project web site in two languages (English and Turkish).	All grievances closed-out within the target timeframe ESMP, Project specific SEP and GM will be prepared and disclosed at the Project web site
Vulnerable groups	
Incidents, Grievances, Toolbox talks and trainings, Information/ disclosure	All grievances closed-out within the target timeframe Sufficient information provided to the VGs
Grievance mechanism	
Grievance Records, GM disclosure	All grievances closed-out within the target timeframe GM disclosure to the PAPs, stakeholders GM disclosure at Subproject web site
Cultural Heritage	
Existence of a Chance Find	Zero Grievance Records

The Contractor is expected to bear the costs of environmental monitoring. This obligation will be ensured through explicit provisions in the contract. The contract will clearly state that the costs of monitoring activities specified in the ESMP (e.g., air, water, noise, waste) are to be covered by the Contractor; the technical specifications will include detailed responsibilities and performance criteria. This process will be supervised by the construction supervision consultant.

Table 4-2. Construction Environmental and Social Monitoring Table

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
	Land Use	<ul style="list-style-type: none"> - Protective and corrective actions taken to prevent land degradation and encroachment - Verification of compliance with land use plans and permits Correspondence with the relevant stakeholders - Grievance records 	Subproject area	On-site visual observations/ inspections Grievance records	daily	WB ESS-1 WBG EHS Guidelines	Sub-borrower and Contractor	Number of grievances = 0; Response within 7 working days; 100% boundary compliance	Included in construction costs
	Soil and Topsoil Management	Existence of soil contamination related parameters as specified in the of Regulation on the Control of Soil Pollution and Lands Polluted by Point Sources Identification and monitoring of soil contamination indicators relevant to road construction activities under NACE Code 42.11, including heavy metals (Pb, Cd, Zn,	Subproject area	On-site visual observations/ inspections Documentation: Review of Training records, incident reports Soil analysis in case of leakage/spill Stockpile checks	Daily visual observation Monthly review of training records In case of leakage/spill	Regulation on the Control of Soil Pollution and Lands Polluted by Point Sources (Annex-2, Table 1) for threshold values ;WB ESS-1 WBG EHS Guidelines for general monitoring principles	Sub-borrower and Contractor	- No visible soil contamination or staining on-site - (In case of leakage/spill) Soil sample analysis results meet applicable national soil quality standards or, if unavailable, internationally recognized guidelines (e.g., WHO, EU Soil Directive)	Included in construction costs

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
		<p>Cu, Ni, Cr, Hg), petroleum hydrocarbons (TPH, PAHs), soil pH, organic matter content, and suspended solids. Additionally, monitoring the proper stripping, storage, protection, and timely reuse of topsoil to prevent erosion, contamination, and loss of soil fertility during the construction process.</p> <p>- Topsoil stripping, storage, protection, reuse</p>						<p>- Spill incidents = 0/month</p> <p>- Topsoil reused promptly in accordance with restoration plans to preserve soil fertility and structure</p> <p>- Training conducted regularly with documented records showing 100% attendance of relevant personnel</p> <p>- No reports of uncontrolled soil disturbance or unauthorized excavation activities- Stockpiles protected</p> <p>- Timely topsoil reuse</p>	
	Waste and Chemicals Management (including ACMs)	<p>- Proper segregation of hazardous/non-hazardous waste</p> <p>- Storage of</p>	Construction Site (waste storage areas, chemical	Visual inspections, documentation checks, asbestos screening (if necessary)	Weekly (daily during critical excavation works)	National Waste Regulation, IFC EHS Guidelines	Contractor HSE Officer Environmental Supervisor	- % of properly labeled and separated waste containers	Included in construction costs

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
		chemicals in banded areas - MSDS availability - Presence of spill kits - Presence or absence of ACMs	storage, excavation zones)			(for ACMs: Asbestos exposure limit if detected)		- % of workers trained on hazardous material handling - Absence of spills or uncontrolled releases - ACM detection and safe handling (if encountered)	
	Groundwater	Presence and concentration of contaminants in groundwater, particularly relevant to potential spill substances (e.g., hydrocarbons, heavy metals, chemicals used on-site) Visual evidence of groundwater contamination (discoloration, odor, turbidity) Confirmation of containment effectiveness after any spill/leak incident	Subproject area Impact area of leak/spill (if any)	On-site visual observations/ inspections Groundwater analysis in case of leakage/spill	Weekly In case of leakage/spill	Regulation on Water Intended for Human Consumption Regulation on the Protection of Groundwater Against Pollution and Degradation WB ESS-1 WBG EHS Guidelines	Sub-borrower and Contractor	No complaints received; Water quality complies in case of spill; Containment within 2 hours	Included in construction costs

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
	Air Quality	Grievance records on air quality Preventive and corrective measures taken PM10, PM2.5 concentrations; Dust levels (visual assessment); Odor presence (if applicable); Number and nature of air quality-related grievances (supporting indicator)	Nearest Settlements and specific receptors (e.g., residences, schools, health facilities) where air quality-related grievances have been received	On-site visual observations/inspection Air quality measurements to be performed at the nearby settlements and in case of grievance (by an accredited laboratory). Air quality measurements will be conducted at specific, predefined locations in proximity to sensitive receptors such as residential areas, schools, and health facilities within the project impact zone. Documentation: Vehicle and equipment maintenance records, training records,	Daily (on-site visual observations In case of air quality related grievance Monthly (document review) Instrumental air quality measurements based on risk assessment and triggered by grievances	Industrial Air Pollution Control Regulation Exhaust Gas Emission Control and Gasoline and Diesel Quality Regulation WB ESS-1 WBG EHS Guidelines National Air Quality Regulation, WHO Air Quality Guidelines	Sub-borrower and Contractor	PM10 < 50 µg/m³ and PM2.5 < 25 µg/m³ (if measured); Number of air quality-related grievances = 0; 100% of vehicles and equipment have valid maintenance records	Included in construction costs
	Environmental Noise and Vibration	Grievance records on noise and vibration Preventive and corrective measures taken Noise levels (dBA) and vibration levels (mm/s) monitored in case of	Nearest Settlements and specific receptors (e.g., residential areas, schools, health facilities) where noise and vibration-related	Noise and vibration measurements in case of grievances using noise measuring devices (at least 48 hours of uninterrupted noise measurements) (by an accredited laboratory)	In case of noise/vibration-related grievance (Optional: and during scheduled monitoring campaigns if required by the authority)	Environmental Noise Control Regulation (ENCR) – for threshold values WB ESS-1 – for overarching E&S management framework WBG EHS Guidelines: (Table 1.7.1 – Noise Level Guidelines) – for	Sub-borrower and Contractor	Noise/vibration grievances = 0; Results comply with limits; Daytime noise < 65 dBA	Included in construction costs

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
		grievances, in accordance with applicable standards	grievances may occur			measurement methodology and grievance-based monitoring principles.			
	Biodiversity components	Habitats, flora and fauna species, including trees to be translocated, monitored for disturbance, damage, or loss Presence of invasive alien species due to accidental introduction	Subproject Area and AoI	On-site visual observations by a qualified specialist (Landscape Architect, Veterinarian and Agricultural Engineer) within the municipality, including photographic documentation and GPS logging, to monitor habitats, flora and fauna species, and the status of tree relocation activities	Quarterly for flora and fauna; Monthly for tree relocation follow-up; Additional observations after significant site clearing	WB ESS-6	Sub-borrower and Contractor	No vegetation loss beyond permitted areas; No harmed species observed; Disturbance area < 0.5% of total project footprint; Tree relocation activities are monitored throughout construction; 100% of planned tree relocations are completed in accordance with the landscape No unauthorized vegetation clearance is observed.	Included in construction costs

Table 4-3. Operation Environmental and Social Monitoring Table

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
	Soil	Presence of soil contamination; Records of leakage/spill incidents; Soil-related grievances	Subproject area	On-site visual observations and inspections; Review of incident and grievance records; Soil analysis in case of leakage/spill	Daily visual observations; Immediately after any spill incident	Regulation on the Control of Soil Pollution and Lands Polluted by Point Sources (Annex-2, Table 1) for threshold values; WB ESS-1 and WBG EHS Guidelines for general monitoring principles	Sub-borrower	Number of leakages/spill incidents = 0; Number of soil-related grievances = 0; Contaminated soil managed and disposed of in accordance with regulation	Included in construction costs
	Surface Water	Functionality of surface runoff control structures; Maintenance records; Water quality in case of leakage/spill	The sub project area	On-site visual observations and inspections; Review of maintenance logs; Water quality analysis by accredited laboratory in case of leakage/spill	Daily for visual inspections; Quarterly review of maintenance records; In case of leakage/spill	Regulation on Water Pollution Control (SKKY); WB ESS-1 and WBG EHS Guidelines for monitoring approach	Sub-borrower	Number of flood incidents = 0; Maintenance activities completed as scheduled; Water quality compliant with national standards in case of spill	Included in construction costs
	Air Quality	Grievance records related to air quality; Corrective/preventive actions taken; Ambient air quality parameters (PM10, PM2.5); Maintenance	Subproject area and nearby settlements	On-site visual observations; Review of grievance and maintenance records; Ambient air quality measurements by accredited laboratory in case of grievance;	Daily visual checks; Monthly maintenance review; In case of grievance-based complaint or upon authority request	Industrial Air Pollution Control Regulation; Exhaust Gas Emission Control Regulation; WB ESS-1; WBG EHS Guidelines	Sub-borrower	Number of air quality-related grievances = 0; PM levels within thresholds (if measured); 100% of vehicles/equipment	Included in construction costs

Ref.	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Monitoring/Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
		status of vehicles and equipment		Monthly review of maintenance logs		(PM10 < 50 µg/m³, PM2.5 < 25 µg/m³) WBG EHS Guidelines		with valid maintenance logs	
	Environmental Noise	Grievance records related to noise and vibration; Corrective and preventive actions taken; Noise levels (dBA) and vibration levels (mm/s or dB)	Subproject area and sensitive receptors (e.g., residences, schools, health facilities)	Review of grievance records; Noise/vibration measurements by accredited laboratory using Class 1 equipment for at least 48 hours in case of complaint	In case of noise/vibration-related grievance; Additional monitoring upon authority request	Environmental Noise Control Regulation (ENCR) for thresholds; WBG EHS Guidelines (Table 1.7.1 – Noise Level Guidelines); WB ESS-1	Sub-borrower	Number of noise/vibration-related grievances = 0; Measurement results comply with national/EHS limits; Daytime noise < 65 dBA	Included in construction costs

4.5. List of Associated Plans and Procedures

The E&S management plans and procedures to be prepared by Contractor/s are listed in Table 4-4.

Table 4-4. Plans and Procedures associated with Construction and Operation Phase of the Subproject

Management Plan or Procedure	Relevant Subproject Phase (Construction only, Operation only, both Construction and Defect Liability Period (DLP))
Waste Management Plan	Construction and Operation
Air Quality Management Plan	Construction and Operation
Noise and Vibration Management Plan	Construction and Operation
Occupational Health and Safety Management Plan	Construction and Operation
Emergency Preparedness and Response Management Plan	Construction and Operation
Stakeholder Engagement Plan	Construction and Operation
Labor Management Plan	Construction and Operation
Traffic Management Plan	Construction and Operation
Soil Management Plan	Construction and Operation
Community Health and Safety Management Plan	Construction and Operation

The plans/procedures will be reviewed and revised in the event of any major change and/or at least every 6 months.

4.6. Management of Change

The Sub-borrower shall notify ILBANK of any material changes to the Subproject (including those resulting from the activities of the Sub-borrower and/or contractor) using ILBANK's Change Notification Form template (see Annex H).

Such changes may include, *inter alia*, the following:

- Administrative/ organizational structure changes at the decision-making level
- Changes in assigned environmental, social and/or OHS staff
- Legislative changes impacting Subproject implementation (e.g. new permitting processes).
- Design changes (e.g. any changes in the Subproject description, footprint such as new temporary or permanent sites/facilities – on-site or off-site, changes in number of workforce involved, changes in on-site/off-site worker accommodation arrangements).
- Schedule changes
- Changes related to E&S issues (e.g. new biodiversity features or cultural heritage assets identified, additional resettlement need, etc.)
- Changes in the contractor or construction supervision consultants at any phase of the Subproject that require: (i) clarification of E&S commitments and roles and responsibilities with the new contractor or supervision consulting firm, and (ii) reorganization and redelivery of E&S training to the staff of the new contractor or supervision consulting firm

5. CAPACITY DEVELOPMENT AND TRAINING

5.1. Organizational Capacity

The organizational structure of the Subproject is presented in Figure 5-1. The project implementation will be carried out by Kayseri Metropolitan Municipality through its Project Implementation Unit (PIU). The PIU is responsible for ensuring that the project is conducted in an efficient, coordinated, and compliant manner. The PIU will include qualified staff and resources to the satisfaction of ILBANK.

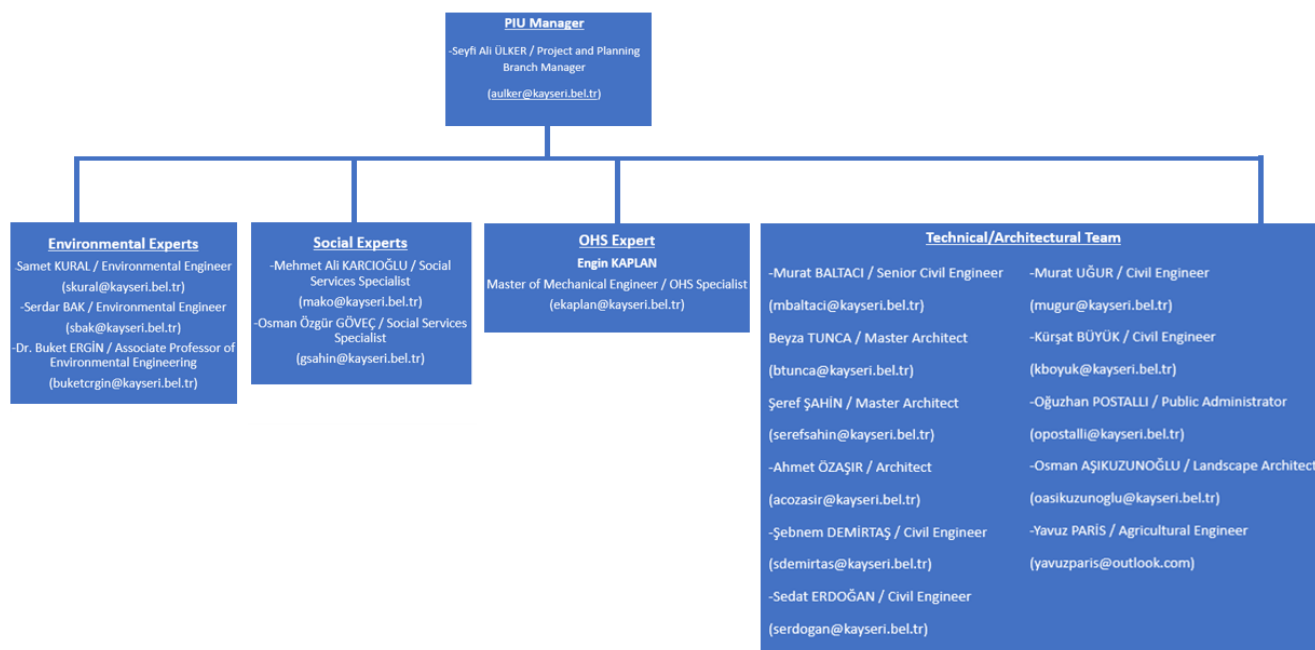


Figure 5-1. Project Organizational Capacity

The Sub-borrower will maintain the PIU by ensuring that there is qualified staff assigned and serving on the duty throughout the sub-financing agreement lifecycle.

At minimum, the E&S team at the Sub-borrower PIU will include the following personnel, who shall support the management and monitoring of Subproject E&S risks and impacts and ensure full compliance with the ESMP and other relevant E&S instruments:

- **Environmental Expert(s):** to address environmental risks and impacts identified under the Environmental and Social Assessment (ESA) reports, such as Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), etc.
- **Social Expert/ Grievance Mechanism (GM) Focal Point:** to address social risks and impacts identified under the ESA reports, land acquisition, and labor issues, including stakeholder engagement and grievance redress; and
- **Occupational Health and Safety (OHS) Expert(s)** to address OHS risks and impacts identified under the ESA reports.

If the necessary staff is not available within their own organizational structure, the Sub-borrower shall obtain support/consultancy services from outside.

Participation in ILBANK Training

As part of capacity-building efforts under the CDRC Project, several staff members from the Project Implementation Unit (PIU) participated in ILBANK's Environmental and Social Management training program. The positions of participating personnel are as follows:

- Environmental Engineer
- Social Specialist
- OHS Specialist / Master of Mechanical Engineer
- Architect
- Civil Engineer

These staff members are actively involved in the implementation and monitoring of the Subproject and play a key role in ensuring alignment with ESMP, SEP, LMP, and other environmental and social instruments. Their participation in the training has further

enhanced the institutional capacity of the PIU to meet the requirements of the World Bank Environmental and Social Standards, particularly ESS1, ESS2, ESS4, and ESS10.

Contractors

The Sub-borrower will require the awarded contractors to establish and maintain throughout the contract duration an organizational structure with qualified staff and resources.

This will be achieved through assigning the following personnel within the contractor's organization:

- Environmental Expert(s)
- Social Expert(s) who will also act as the GM Focal Point
- Occupational Health and Safety (OHS) Expert(s)

If the necessary staff is not available within their own organizational structure, contractors shall obtain third-party support/consultancy services.

5.2.Roles and Responsibilities

The roles and E&S related responsibilities of the Sub-borrower and other key parties are described in Table 5-1.

Table 5-1. Roles and E&S related Responsibilities of Key Parties associated with ESMP Implementation

Party	Role	Key Responsibilities
Sub-borrower		
Kayseri Metropolitan Municipality	Sub-borrower Management	<ul style="list-style-type: none"> • Hold ultimate responsibility for the E&S performance of the Subproject to the satisfaction of the ILBANK, including the performance of Subproject contractors throughout the sub-financing agreement lifecycle. • Establish Project Implementation Unit (PIU) following the execution of sub-financing agreements to carry out operational and administrative tasks to oversee the implementation of the E&S instruments and monitoring progress; allocate resources for the recruitment of in-house environmental, social and OHS staff under the PIU • Ensure that ESMP, SEP and other E&S management plans and procedures required by ILBANK is prepared within the timeframes agreed with ILBANK and allocate adequate financial and human resources – either from the Sub-borrower's own resources or from the Subproject loan and implement. • Cooperate with the ILBANK representatives to discuss and agree on the ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower (with support from RD E&S team as necessary) • Ensure that EHSS requirements of ILBANK are incorporated into relevant contractor tender and agreement documents to be prepared in collaboration with the construction supervision consultant • Hold and use the authority and responsibility to stop any Subproject related work activity if it poses an imminent danger to health, safety, or the environment. • Allocate resource to ensure monitoring of Subproject E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Facilitate monitoring visits and audits by ILBANK and their consultants • Notify the ILBANK DG of any significant E&S incident or accident within maximum 24 hours of the accident/incident; contractually require the supervision consultants and/or contractors to promptly report such incident and accidents (timeframe to be defined by ILBANK) • Prepare and submit a detailed E&S Incident Investigation Form, supplemented by an RCA to be conducted pursuant to GIIPs, to ILBANK within 15 days of the accident/incident date for significant accidents or incidents (in line with the template presented in the E&S Supervision, Monitoring and Reporting Procedure). The investigation will be supplemented by a Root Cause Analysis (RCA).
	E&S Team - Environmental staff - Social staff - OHS staff	<ul style="list-style-type: none"> • Participate in the training to be organized by ILBANK as part of ILBANK ESMS Training Procedure implementation • Ensure that satisfactory ESMP, SEP and as required other E&S assessment documentation required by ILBANK is prepared by qualified independent specialists and submitted to ILBANK for appraisal and credit decision-making for High and Substantial risk Subproject, as well as for Moderate

Party	Role	Key Responsibilities
		<p>risk Subproject where the sub-borrower has limited E&S capabilities, coordinate commissioning independent third-party specialists (such as external E&S consultancy companies, individual consultants) to carry out the E&S assessment and prepare the E&S documentation required for ILBANK's appraisal and credit decision-making processes</p> <ul style="list-style-type: none"> • Provide ILBANK with relevant adequate information to undertake the E&S due diligence in accordance with the ESMS (e.g. duly completed sub-borrower questionnaire and supporting documentation to be requested by ILBANK in accordance with the E&S Screening and Risk Classification and ESDD procedures) • Support the sub-borrower management as required in the review and evaluation of ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower • Ensure compliance of Subproject operations (including contractor activities on site) with national legislation and E&S requirements of the lending IFIs as included in the sub-financing agreements, ESAP and Subproject-specific E&S documentation (such as ESMP, SEP and other E&S management plans and procedures required by ILBANK) • Undertake monitoring of Subproject E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Ensure implementation of corrective actions in case of E&S non-compliances in coordination and agreement with ILBANK DG and RD E&S teams over reasonable timeframes • Coordinate the construction supervision consultants, contractors and/or external E&S consultants for collection of the monitoring data and compilation of or providing input to periodic monitoring reports as necessary and appropriate • Allow ILBANK representatives (including individual consultants) to access Subproject facilities and records.
Construction Supervision Consultants ("Müşavir")	Management and E&S staff	<p>Carry out the following tasks on behalf of the sub-borrowers:</p> <ul style="list-style-type: none"> • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Supervise the construction works of contractors on-site, including implementation of Subproject-specific E&S requirements (requirements stemming from ESMP, SEP and other E&S management plans and procedures required by ILBANK as applicable) by contractors on a daily basis • Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the sub-financing agreements between the sub-borrower and ILBANK • Support the sub-borrowers for the supervision and review of E&S management documentation prepared by construction contractors and submit them to sub-borrowers upon finalization • Review monthly self-monitoring reports prepared by the construction contractors for early identification of E&S issues and/or non-compliances and submit them to municipalities/municipal utilities upon finalization • Identify E&S non-compliances on site and enforce construction contractors to undertake corrective actions within defined and agreed timeframes • Support the sub-borrowers (as requested) in the preparation of periodic E&S monitoring reports to be submitted to ILBANK in line with the ILBANK E&S Supervision, Monitoring and Reporting Procedure • Notify the sub-borrower of any significant E&S incident or accident that have taken place in Subproject related operations within 24 hours.
Construction Contractor	Management and E&S staff	<ul style="list-style-type: none"> • Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the construction contracts • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Prepare Subproject-specific E&S management plans and procedures prior to start of construction works as required by the construction contracts • Comply with the requirements of national legislation and implement the E&S requirements as set out in the sub-financing agreements (executed between ILBANK and the sub-borrowers) and construction contracts

Party	Role	Key Responsibilities
		<ul style="list-style-type: none"> • Submit periodic (in frequencies to be set by ESAP) E&S self-monitoring reports to the municipalities/municipal utilities through construction supervision consultants (“müşavir”) – in line with the format provided by ILBANK. • Fill in monthly occupational health and safety (OHS) forms – reviewed by construction supervision consultants. • Implement corrective actions in case of E&S non-compliances under the supervision of sub-borrower’s construction supervision consultant • The Contractor is responsible for using templates in Annex Q for incident registration and Annex F for detailed investigations. • Promptly notify the sub-borrower of any significant E&S incident or accident that have taken place in Subproject related operations within 24 hours.

5.3.Capacity Building and Training

Sub-borrower staff (trained by ILBANK) will deliver E&S training to contractors. The training contents are summarized in Table 5-2. The Sub-borrower will identify specific training programs to be conducted in line with these modules and submit this to ILBANK prior to commencement of works.

The Sub-borrower will ensure that E&S training programs are extended to subcontractors by contractors in the event of their involvement in Subproject implementation.

Table 5-2. Training Components for Training of Contractor Staff

Module	Training Name	Training Duration	Key Training Content
Module 1	ILBANK E&S Requirements	1 hour	<ul style="list-style-type: none"> - Overview of ILBANK E&S requirements: <ul style="list-style-type: none"> o ILBANK E&S Policy (including but not limited to the guiding principles on human rights, labor rights and working conditions, community health, safety and well-being, cultural heritage, gender equality, etc.) o External Communications (including stakeholder engagement, grievance management, etc.) o Monitoring, Review and Reporting o Labor Management, Contractor Management - ILBANK Code of Conduct
Module 2	Subproject-level E&S Requirements for contractors as per sub-financing agreement conditions	3 hours	<ul style="list-style-type: none"> - Subproject specific requirements: <ul style="list-style-type: none"> o E&S covenants included in sub-loan agreements o Subproject ESAP requirements o Subproject-level E&S assessment and management documentation (such as ESMP, SEP and other E&S management plans and procedures as applicable); o Emergency Preparedness and Response Plan including a training program for emergency responders including drills at regular intervals; o Specific training (such as driver training in case of involvement of vehicles or fleets of vehicles in Subproject-operations, training of security forces in the use of force (and where applicable, firearms), and appropriate conduct toward workers and affected communities, etc.). o The Subproject’s Code of Conduct (Annex J) guides worker behavior, supports non-discrimination, harassment prevention, and gender-based violence mitigation measures during construction and operation phases. - Preparation and implementation of Labor Management Plans.

6. IMPLEMENTATION SCHEDULE AND COST ESTIMATES

6.1. Implementation Schedule

Duration of the construction and operation phase activities are listed in Table 6-1.

Table 6-1. Duration of Activities

WORK ITEMS / DURATION (MONTHS)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
INFRASTRUCTURE DISPLACEMENTS (Stormwater, Wastewater, Drinking Water, Electricity, Natural Gas, Telecom, Fiber Optic etc.)	4 Months																		
UNDERPASSES AND TUNNELS (Top-Down, Beam-Type)	16 Months																		
PEDESTRIAN UNDERPASSES												6 Months							
ROAD WORKS (Excavation, Filling, Superstructure etc.)	18 Months																		
ROAD DRAINAGE (Rainwater)					12 Months														
ELECTRICAL INFRASTRUCTURE AND LIGHTING						12 Months													
TRAFFIC + SIGNALIZATION										9 Months									
PUMPING STATION and MECHANICAL WORKS										8 Months									

Table 6-2. Duration of Subproject Activities

Phase	Duration
Construction Phase (from site mobilization until provisional acceptance)	18 months
Defect Liability Period	12 months
Operation Phase	Minimum 50 years

6.2. Cost Estimates

Under this section, expenditure items for the implementation of the ESMP are presented. These expenditures include:

- Environmental, Social, Occupational Health and Safety Experts
- Monitoring Activities,
- Revisions in site-specific ESMP and SEP,
- Social, Environmental, and OHS Trainings, Awareness, Information Dissemination,
- Capacity building,
- Implementation of SEP, and ESMPs' measures.

Budget Item	Estimated Cost
Construction Phase	
Environmental Expert	Key staff (*)
Social Expert	Key staff (*)
OHS Expert	Key staff (*)
Monitoring (Measurements and laboratory analyses)	Included in the contractor's budget (**)

Financial Experts	No extra cost (***)
Technical Experts	No extra cost (***)
Operation Phase	
Monitoring (Measurements and laboratory analyses)	Included in the operation budget of Subborrower(**)
Financial Experts	No extra cost (***)
Technical Experts	No extra cost (***)

(*) Recruitments of specialists shall be financed under the budget of supervision consultancy services. Relevant cost estimates are taken into account at the initial stage of the consultant selection. The contractors are obliged to hire environmental, social and OHS experts for the implementation and monitoring of ESMP within the scope and price of their bids. .At this stage monthly cost estimated per specialist is 1,000 €/month)

(**) The laboratory and testing obligations and relevant reporting responsibility will be included within the works contract, during the construction period and the defect liability period. Later, for the operation stage, this responsibility will be transferred to Subborrower.

(***) Since Subborrower permanent staff will be appointed to these positions, there will be no extra cost to the Project budget.

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Annex A – List of the Individuals/Organizations that Prepared or Contributed to the ESMP

Name of the Individual/ Organization	Company/ Institution	Profession/ Expertise
Pelin Deniz YOĞURTÇU	POSEİDON	Environmental Engineer
Hilal AYDIN	POSEİDON	Environmental Engineer
Fikret VAROL	POSEİDON	Environmental Engineer
Hüseyin GÜNGÖR	POSEİDON	OHS Expert
Merve YILDIRIM	POSEİDON	Sociologist
Ali Can CAN	POSEİDON	Sociologist

Annex B – Existing Permitting Documentation

EIA Decision



T.C
KAYSERİ VALİLİĞİ
Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü



Sayı : E-27332451-220.03-10597815

02.10.2024

Konu : Kartal Kavşağı ve Bağlantı Yolları İnşaatı
Projesi Hk.

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA

İlgi : 02/10/2024 tarihli ve 204403 Referans No'lu Başvuru.

Kayseri ili, Melikgazi ilçesinde Kayseri Büyükşehir Belediye Başkanlığı tarafından yapılması planlanan "Kartal Kavşağı ve Bağlantı Yolları İnşaatı (10,5 km)" projesi, 29.07.2022 tarih ve 31907 Sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren ÇED Yönetmeliği Listelerinde yer almadığından kapsam dışı olarak değerlendirilmiştir.

Ancak, planlanan yatırım ile ilgili olarak, 5491 sayılı kanunla değişik 2872 sayılı Çevre Kanunu ile bu Kanuna istinaden çıkarılan Yönetmeliklerin ilgili hükümlerine uyulması ve diğer mer'i mevzuat çerçevesinde öngörülen gerekli izinlerin alınması, ekolojik dengenin bozulmamasına, çevrenin korunmasına ve geliştirilmesine yönelik tedbirlere riayet edilmesi gerekmektedir.

Bilgilerinizi ve gereğini arz ederim.

Sibel LİVDUMLU
Çevre, Şehircilik ve İklim Değişikliği İl Müdürü

General Directorate of Highways Opinion



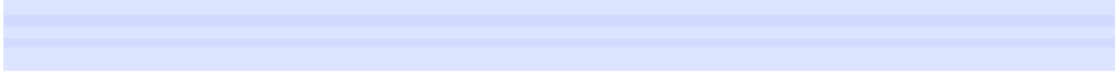
T.C.
KARAYOLLARI GENEL MÜDÜRLÜĞÜ
6. Bölge Müdürlüğü



Sayı : E.29825892- 000 / 1694137
Konu : Kartal Kavşağı ve Bağlantı Yolları
Projesi

11.12.2024

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞI
Etüt ve Projeler Daire Başkanlığı



İlgi: 06/12/2024 tarihli ve 56889840 - 30535 sayılı yazınız.

İlgi yazıda belirtilen “Kartal Kavşağı ve Bağlantı Yolları Projesi”nin Bölge Müdürlüğümüz sorumluluk alanında olmadığı tespit edilmiş olup söz konusu kavşağın yapılmasında herhangi bir sakınca bulunmamaktadır.

Gereğini bilgilerine arz ederim.

Abdulvahap COŞKUN
Bölge Müdürü a.
Bölge Müdür Yardımcısı

Provincial Mufti's Office Opinion



T.C.
KAYSERİ VALİLİĞİ
İl Müftülüğü



Sayı : E-35109208-756.99-5774401
Konu : İmar Planı Değişikliğine İlişkin Kurum
Görüşü Hk.

11.12.2024

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA

İlgi : 10.12.2024 tarihli ve E-32845575-754-2024-1886/30752 sayılı yazı.

İlimiz Melikgazi İlçesi Erenköy Mahallesinde bulunan ve mülkiyeti Hazineye ait 13835 ada, 1 parselde kayıtlı olan ve kurumumuza tahsisli bulunan taşınmaz ile ilgili kurumunuz tarafından Kartal Kavşağının bulunduğu alanda yapılması düşünülen projenin planlara işlenmesi talep edildiğinden dolayı, planlanan kavşak projesine göre cami alanının batı kısmında plan tadilatının yapılması hususunda ilgi yazı gereği kurum görüşü talep edilmektedir.

Bu itibarla, belirtilen taşınmaz üzerinde yapılması planlanan plan değişikliğinde kurumumuzca bir sakınca bulunmamaktadır. Gereğini arz ederim.

Durmuş AYVAZ
İl Müftüsü

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Doğrulama Kodu: D6F10824-919A-40F1-AF68-8EBB35208162

Doğrulama Adresi: <https://www.turkiye.gov.tr/>

Hunat Mah. Seyyid Burhaneddin Bul. No:6/B 38030 Melikgazi / KAYSERİ

0 352 222 20 88

0 352 222 88 97

KEP Adresi : kayserimuftulugu@hs03.kep.tr

Bilgi için: Gürhan
TARLEMEZ
Veri Haz.Ve Kontrol
İşletmeni





T.C.
TARIM VE ORMAN BAKANLIĞI
Devlet Su İşleri Genel Müdürlüğü
12. Bölge Müdürlüğü



Sayı : E-81675414-622.02-5403619

30.12.2024

Konu : Kartal Kavşağı ve Bağlantı Yolları Projesi
hk.

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA

İlgi : 06.12.2024 tarihli ve E-58535219-622-2024-232/30538 sayılı yazınız.

İlgi yazınızda, Kayseri ili, Melikgazi ilçesi, Erenköy, Esenyurt, Hunat ve Gültepe mahalleleri Mustafa Kemal Paşa bulvarı, Talas bulvarı, Seyyid Burhaneddin bulvarı, Mehmet Özhasaki bulvarı ve Şht. Tank Koçoğlu bulvarı yol güzergahlarında planlanan "Kartal Kavşağı ve Bağlantı Yolları Projesi" nin ekte gönderildiğinden bahisle proje ile ilgili Kurum görüşümüzün bildirilmesi istenmektedir.

Konu ile ilgili gerekli inceleme yapılmıştır. Yazımız ekinde yer alan harita üzerinde işaretlenen talep konusu alanın DSİ projeleri kapsamına girmediği ve içerisinde herhangi bir dere yatağı geçmediği tespit edilmiş olup yapılacak çalışmalarda, Kayseri ili, Melikgazi ilçesi için Kurumumuzca daha önce verilmiş olan imar planı görüşlerinde belirtilen hususlara uyulması gerekmektedir.

Bilgilerinizi ve gereğini arz ederim.

Mehmet Necati ERCAN
Bölge Müdürü a.
Bölge Müdür Yardımcısı

Ek: Harita (1 Sayfa)



Kayseri Cultural Heritage Preservation Regional Board Decision

T.C.
KÜLTÜR VE TURİZM BAKANLIĞI
Kayseri Kültür Varlıklarını Koruma Bölge Kurulu

KARAR

Toplantı no ve tarih: 446 – 19.12.2024
Karar no ve tarih : 8324 – 19.12.2024

Toplantı Yeri
KAYSERİ

Kayseri İli, Melikgazi İlçesinde bulunan, sit dışında yer alan, Erenköy, Esenyurt, Hunat ve Gültepe Mahalleleri yol güzergahlarında planlanan Kartal Kavşağı ve Bağlantı Yolları Projesi ve raporlarının tescilli yapılara yönelik belirlenen korunma alanının bir kısmını kapsayan bölümünün Koruma Bölge Kurulunda değerlendirilmesi istemine ilişkin Kayseri Büyükşehir Belediyesi, Etüt ve Projeler Daire Başkanlığı'nın 06.12.2024 tarih ve E-58535219-622-2024-233/30539 sayılı, 16.12.2024 tarih ve E-58535219-622-2024-238/31221 sayılı yazıları, konuya yönelik Koruma Bölge Kurulu Müdürlüğü uzmanlarının 18.12.2024 tarih ve 3119096 sayılı yerinde inceleme raporu okundu, uzmanın açıklamaları dinlendi, dosyasındaki bilgi ve belgeler incelendi, yapılan görüşme sonunda;

Kayseri İli, Melikgazi İlçesinde bulunan, sit dışında yer alan, Erenköy, Esenyurt, Hunat ve Gültepe Mahalleleri yol güzergahlarında planlanan Kartal Kavşağı ve Bağlantı Yolları Projesi ve raporlarının tescilli yapılara yönelik belirlenen korunma alanının bir kısmını kapsayan bölümünün uygun olduğuna, uygulamaların gerekli muvafakatlar alındıktan sonra tescilli yapılara zarar vermeyi önleyecek her türlü tedbirler alınarak ilgili belediyesi sorumluluğunda, KUDEB ve ilgili Vakıflar Bölge Müdürlüğü denetiminde yapılmasına, uygulama sonrasına ilişkin bilgi ve belgelerin Koruma Bölge Kurulu Müdürlüğüne iletilmesine, projenin uygulaması esnasında 2863 sayılı yasanın 4.maddesi gereği herhangi bir kalıntıya ya da buluntuya rastlanması durumunda çalışmaların durdurularak en yakın Müze Müdürlüğüne veya diğer yerlerde mülki idare amirine haber verilmesine karar verildi.



Başkan
Prof. Dr. Nur URFALIOĞLU
(İmza)

Başkan Yardımcısı
Hamit ÖNCÜ
(İmza)

Üye
İlhan ALİKİŞİOĞLU
(İmza)

Üye
Ömer Faruk ERCİYES
(İmza)

Üye
Mehmet OSMANLIOĞLU
(İmza)

Üye
Doç. Dr. İlker Mete
MİMİROĞLU
(İmza)

Üye
Prof.Dr. Ertekin Mustafa
DOKSANALTI
(İmza)

Üye
Gürcan SENEM
Kayseri Büyükşehir Belediyesi Tem.
(İmza)

Üye
Furkan ERGÜNEŞ
Melikgazi Belediye Tem.
(İmza)

Üye
Murat SEÇİLİR
Kayseri Vakıflar Bölge Müdürü
(İmza)

KÜLTÜR VE TURİZM BAKANLIĞI
Kayseri Kültür Varlıklarını Koruma Bölge Kurulu

Ek-1

KARAR

Toplantı No. ve Tarihi : 448 - 02.01.2025
Karar No. ve Tarihi : 8380 - 02.01.2025

Toplantı Yeri
KAYSERİ

Kayseri ili Melikgazi ilçesi Hunat Mahallesinde sit dışında bulunan, Kayseri Kültür ve Tabiat Varlıklarını Koruma Bölge Kurulunun 29.01.2009 tarih ve 1270 sayılı kararı ile I. Grup korunması gerekli taşınmaz kültür varlığı olarak tescil edilen ve muhtelif tescilli taşınmazlara yönelik belirlenen ve Kayseri Kültür Varlıklarını Koruma Bölge Kurulunun 16.06.2014 tarih ve 1075 sayılı kararı ile sınırları güncellenen Melikgazi Korunma Alanında kalan "Endüstri Meslek Lisesi Döküm Atölyesi" ile "Endüstri Meslek Lisesi B- Blok Makine Resim Atölyesi"nin bulunduğu mülkiyeti maliye hazinesine ait 1200 ada 8, 9, 11 ve 12 parsellerde 3194 sayılı İmar Kanunu kapsamında yapılması planlanan ifraz ve yola terk uygulamaları talebinin değerlendirilmesi istemine ilişkin Kayseri Kadastro Müdürlüğü'nün 27.12.2024 tarih, 15010151 sayılı yazısı ile konuya ilişkin Koruma Bölge Kurulu Müdürlüğü uzmanının 30.12.2024 tarih ve 3146625 sayılı raporu okundu, açıklamaları dinlendi, dosyasındaki bilgi ve belgeler incelendi, yapılan görüşme sonucunda;

Kayseri ili Melikgazi ilçesi Hunat Mahallesinde sit dışında bulunan, Kayseri Kültür ve Tabiat Varlıklarını Koruma Bölge Kurulunun 29.01.2009 tarih ve 1270 sayılı kararı ile I. Grup korunması gerekli taşınmaz kültür varlığı olarak tescil edilen ve muhtelif tescilli taşınmazlara yönelik belirlenen ve Kayseri Kültür Varlıklarını Koruma Bölge Kurulunun 16.06.2014 tarih ve 1075 sayılı kararı ile sınırları güncellenen Melikgazi Korunma Alanında kalan "Endüstri Meslek Lisesi Döküm Atölyesi" ile "Endüstri Meslek Lisesi B- Blok Makine Resim Atölyesi"nin bulunduğu mülkiyeti maliye hazinesine ait 1200 ada 8, 9, 11 ve 12 parsellerde 3194 sayılı İmar Kanunun 15. ve 16. Maddeleri kapsamında yapılması planlanan ifraz ve yola terk uygulamaları talebinin kararımız eki olan; "Tescil Bildirim"lerinde gösterildiği şekliyle yapılmasında 2863 sayılı yasa kapsamında sakınca olmadığına, uygulamaların kadastro ve tapu tescili görmesinden sonra uygulama sonucu oluşacak olan ve "Tescil Bildirim"lerinde 1200 ada 25, 27, 29 ve 30 parseller ile gösterilen taşınmazların pafta, fen klasörü ve tapu kütüğü beyanlar hanesine "bir kısmı I. Grup korunması gerekli taşınmaz kültür varlığıdır ve tamamı korunma alanıdır" şerhinin ilgili tapu ve kadastro müdürlüklerince verilmesine, uygulama sonucuna ilişkin bilgi ve belgelerin Koruma Bölge Kurulu Müdürlüğüne iletilmesine karar verildi.

ASLI GİBİDİR
Fatih ÇAPAR
Koruma Bölge Kurulu Müdürü

Başkan
Prof. Dr. Nur URFALIOĞLU
(imza)

Üye
İlhan ALİKİŞİOĞLU
(imza)

Üye
Doç. Dr. İlker Mete MİMİROĞLU
(imza)

Üye
Furkan ERGÜNEŞ
Melikgazi Belediyesi Tem.
(imza)

Üye
Ömer Faruk ERCİYES
(imza)

Üye
Prof. Dr. Ertekin Mustafa
DOKSANALTI
(imza)

Üye
Murat SEÇİLİR
Kayseri Vakıflar Bölge Müdürü
(imza)

Başkan Yardımcısı
Hamit ÖNCÜ
(imza)

Üye
Mehmet OSMANLIOĞLU
(imza)

Üye
Gürcan SENEM
Kayseri Büyükşehir Belediye Tem.
(imza)

Permit for the Use of Yılanlı Disposal Site

T.Senedi No : 17.02.01
Güncelleme Tarihi:19/08/2015

KESİN İZİN TAAHHÜT SENEDİ (17/3 ve 18 inci Madde İzinleri İçin)

E- İzin No : 2021-38-599-007-00003 Dosya No : 28-01-03-00280

İzin Sahibi : Kayseri Büyükşehir Belediye Başkanlığı
İzin Konusu : Ulaşım Yolu
Orman Bölge Müdürlüğü : Kayseri İl : Kayseri
Orman İşletme Müdürlüğü : Kayseri İlçesi : Melikgazi
Orman İşletme Şefliği : Erciyes Mahallesi/Mevkii : Yılanlı
Seri ve Bölme No : Erciyes 1202,1208 Nolu Bölmeler
İzin Alanı (m²) : 64.712,10
İzin Süresi : 49 yıl
İzin Başlangıç Tarihi : 22.06.2021 İzin Bitiş Tarihi : 22.06.2070
Olur, Tarihi ve Sayısı : 22.06.2021/1449087
Arazi İzin Bedeli : 2.632,88 TL (İlk yıl arazi izin bedeli)(Bir yıllık) (KDV hariç)
Teminat : Muaf

6831 sayılı Orman Kanununun 17/3 ve 18 inci maddeleri gereğince yukarıda belirtilen şekliyle Devlet ormanı üzerinde kesin izin verilmiştir. Bu taahhüt senedi, Devlet idareleri ile kamu kurum ve kuruluşlarında kurum yetkililerince onaylanmasını, gerçek ve özel hukuk tüzel kişilerince ise noter onayını takiben hüküm ifade eder.

1- İzin sahibi, tebliğ tarihinden itibaren en geç üç ay içinde; bir defaya mahsus olmak üzere tahakkuk eden ağaçlandırma bedelini, orkoy bedelini, erozyon bedelini, depolama bedelini ve her yıl alınacak olan arazi izin bedeline ait ilk yıl arazi izin bedelini ilgili hesaplarına yatırmadan, teminat ve onaylı/noter onaylı taahhüt senedini orman idaresine vermeden saha teslimi yapılmaz, çalışmalara müsaade edilmez. Aksi halde verilen izin resen iptal edilir. İzin dosyasındaki mevcut koordinatlarına göre saha teslim alınmadan yapılacak çalışmalar Orman Kanununa göre suç sayılacaktır.

2- İzin sahibi, izin sahasını izin verilmiş maksadı dışında kullanamaz, izin dosyasında mevcut ve izne konu projedeki tesisler dışında tesis yapamaz, her ne sebeple olursa olsun yapılacak plan tadilatı ve ek tesisler için izin almak, vaziyet/imar planına uymak ve izin verilen ek tesisler için Yönetmelik hükümlerine göre ayrıca belirlenecek bedelleri ödemek, onaylı/noter onaylı ek taahhüt senedi ve teminat vermek zorundadır. İzin sahasındaki izinsiz yapılaşmalar Orman Kanununa göre suç sayılacaktır.

3- Müteakip yıllara ait arazi izin bedelleri, BAK (Bedel Artış Katsayısı) oranında artırılmak suretiyle tespit edilerek bildirimde gerek kalmaksızın izin başlangıç tarihinde her yıl defaten tahsil edilir.

İzin sahibinin kesin izinden vazgeçtiğini ve faaliyetini durdurduğunu orman idaresine yazılı olarak bildirdiği durumlarda orman idaresince sahanın geri teslim alındığı tarihte tahakkuk etmiş olan yıllık bedelin tamamı tahsil edilir, devam eden yıllara ait bedel tahakkuk ettirilmez.

4- Bu taahhüt senedinde bahsedilen bedellerden zamanında ödenmeyenler için, izinlerin iptaline ilişkin hükümler saklı kalmak kaydıyla bildirimde gerek kalmaksızın 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanunun 51 inci maddesinde yer alan gecikme zammı oranında faiz uygulanır. Kısmen ödeme yapılması halinde yapılan ödeme öncelikle faize mahsup edilir.

5- Teminat, bu taahhüt senedine uygun çalışmayı temin etmek maksadıyla izin başlangıcında alınır.

Teminat olarak alınan değerler, teminat olarak kabul edilen değerler ile değiştirilebilir.

İzinin, verilen sürenin dolması sebebiyle sona ermesi ve taahhüt senedi ile ilgili yükümlülüklerini yerine getirmesi halinde teminat faizsiz olarak iade edilir. Yönetmelik ve bu taahhüt senedi hükümlerine uygun davranılmadığının tespiti üzerine iznin iptali halinde ise teminat irat kaydedilir. İrat kaydedilen teminat borca mahsup edilmez.

6- Kesin izin, talep edilmesi halinde Bakanlıkça devir edilebilir. Devir alanın, devir eden adına olan ruhsat, lisans, tahsis, kira sözleşmesi gibi belgenin devrini alması, taahhüt senedi ve teminat vermesi zorunludur. Aksi halde devir edenin orman idaresine karşı sorumlulukları aynen devam eder.

İzin devir edilmesi halinde arazi izin bedeli güncellenir.

7- İzin sahasındaki ağaçların kesilmesi gerektiğinde bu ağaçlar mahalli orman idaresince usulüne uygun damgalandıktan sonra kesilecek ve değerlendirilecektir. İzinsiz ağaç kesilmesi, izin sahası

içinde de olsa Orman Kanununa göre suç sayılır. İzin sahası içerisindeki tali ürünler orman idaresince usulüne göre değerlendirilir.

8- İzin sahasında inşaat atıkları/artıkları bulundurulmayacak ve ormana dökülmeyecektir. İşin sonunda şantiye tesisleri sökülerek kaldırılacak, varsa inşaat atıkları/artıkları ile birlikte orman sınırları dışına taşınacaktır. Aksi halde bu işlemler orman idaresince yaptırılır ve masrafları yüzde elli zamlı olarak izin sahibinden tahsil edilir.

9- İzin verilen tesisin inşaatı esnasında çıkan kazı fazlası malzeme için orman alanı içinde izin alınması zorunludur. Bu alana dışarıdan getirilecek herhangi bir malzeme dökülmeyecektir. Kazı fazlası malzeme alanı, kademeli kapatma planına uygun ve ağaçlandırmaya hazır halde orman idaresine teslim edilecektir.

10- Kazı fazlası ve katı atık bertaraf tesis izinlerinde depolama kısımları için kademeli kapatma planına uygun çalışılacaktır.

11- İzin sahibi; çevre kirliliğini önleyici her türlü tedbiri almak, ÇED belgesi kapsamında taahhüt edilen hususlara uymak zorundadır. İnşaat çalışmalarının sona ermesine müteakiben kullanılmayacak alanlar usulüne uygun ağaçlandırılır.

12- İzin sahibi, kendisine teslim edilen orman alanında ve bitişindeki ormanların korunmasına, orman yangınlarına karşı gerekli önlemleri almaya ve orman idaresinin direktiflerine uymaya mecburdur. Bu konudaki kusur ve ihmalden dolayı muhtemel idare zararından orman idaresine karşı sorumlu olacaktır. İdarenin talebi halinde izin sahibi, her türlü makine ve emrinde çalışan işçi ile orman yangınlarının söndürülmesine yardımcı olacaktır.

13- İzin sahasında ve çevresindeki ormanlık alanlarda faaliyetinden dolayı doğacak her türlü zarardan izin sahibi sorumludur. Ayrıca, izin sahibiyle üçüncü kişi ya da kuruluşlar arasında sözleşmeye dayanılarak yapılan faaliyetlerden üçüncü kişi de izin sahibiyle birlikte sorumludur.

14- İzin verilen orman sahası ve üzerindeki tesisler Orman ve Su İşleri Bakanlığının izni olmadan başka şahıs ve kurumlara devredilemez ve işletmeye verilemez, maksadı dışında kullanılamaz.

Ancak; Orman Kanununun 17 nci maddesinin üçüncü fıkrasına göre; sağlık, eğitim ve spor tesisi yapımı maksadıyla verilen izinlere konu asli tesislerin dışındaki kafeterya, kantin, otopark gibi yan ünitelerin kiralanmasının, aynı fıkra kapsamında diğer izinlere konu tesislerin tamamının veya bir bölümünün kiralanmasının veya özelleştirme uygulamaları kapsamında işletme hakkının devredilmesinin, yap-işlet-devret modeli ile yaptırılmasının izin sahibi tarafından talep edilmesi halinde heyetçe konu incelenir. İnceleme raporu düzenlenir. Uygun görülenlere mevzuata uygun olarak Bakanlıkça izin verilir.

Kiralanmasına izin verilmesi halinde izin sahibince; kiracı ile izin sahibi arasında imzalanan sözleşmenin noter onaylı bir sureti orman idaresine verilir, kira sözleşmesinde belirtilen tarihten itibaren kira bedelinin yüzde ellisi en geç bir ay içinde her yıl Genel Müdürlük özel bütçe hesabına yatırılır. Kira bedelinin aylık ödenmesi halinde aylık kira bedeli oniki ile çarpılır bulunan bedelin yüzde ellisi kira sözleşmesinde belirtilen ilk kira ödeme tarihinden itibaren en geç bir ay içinde ödenir.

Kira sözleşmesinin sona ermesi halinde en geç bir ay içinde orman idaresine bildirilir. İzin alınmadan kiralanması veya kira sözleşmesi sona erdiği halde bildirimde bulunulmaması durumunda doğacak her türlü hukuki ve mali yükümlülüklerden izin sahibi sorumlu olacaktır. Yükümlülüklerin yerine getirilmemesi halinde verilen kiralama izni resen iptal edilir.

Sağlık, eğitim ve spor tesisi yapımı maksadıyla verilen izinlere konu asli tesislerin kiralanmasına, işletme hakkının devredilmesine, yap-işlet-devret modeli ile yaptırılmasına izin verilmez.

Sağlık Bakanlığınca sağlık tesisleri, Milli Eğitim Bakanlığınca eğitim tesisleri için kamu özel iş birliği modeli çerçevesinde yaptırılması maksadıyla verilen izinlerde ilgili bakanlıklarca yüklenici adına üst hakkı tesisi talep edilmesi, yüklenici tarafından izinli alana ait cari yıl ağaçlandırma bedelinin yatırılması ve Maliye Bakanlığınca iznin bulunduğu bölge müdürlüğü sınırları içinde izin alanının en az iki katı kadar alanın ağaçlandırılmak üzere Genel Müdürlüğe tahsis edilmesi halinde izin sahibi bakanlıkça bildirilen yüklenici adına izin süresi ile sınırlı olmak kaydı ile üst hakkı kurulmasına Bakanlıkça izin verilir. Yüklenici, taahhüt senedi hükümlerinden orman idaresine karşı sorumlu olduğuna dair ek taahhüt senedi verir.

İzin verilen alanda izin sahibi ile üçüncü kişi veya kuruluşlar arasındaki sözleşmeye dayanılarak yapılan faaliyetlerden izin sahibi üçüncü kişi ile birlikte sorumludur.

15- İzin sahasında izinsiz yapılaşmaların, proje ve maksat dışı tesis ve kullanımların olup olmadığı gerektiğinde orman idaresi görevlilerince kontrol edilecektir. Kontrollerde izin sahibi, kiracı veya işleticiler orman idaresi görevlilerine gereken kolaylığı göstermek, istenen belgeleri ibraz etmek zorundadır. Orman idaresi bahse konu kontrolleri serbest yeminli ormancılık bürolarına da yaptırabilir.



16- İzin; izin süresinin dolması, izin sahibinin vazgeçmesi, izin sahibi gerçek kişi ise ölümü tüzel kişi ise tüzel kişiliğin herhangi bir sebeple sona ermesi, Kanun, yönetmelik ve bu taahhüt senedi hükümlerine aykırı davranılması, orman idaresince yapılacak yazılı ihtarla rağmen aykırı durumun giderilmemesi, izin verilmesine dayanak belgelerden en az birinin iptal edildiğinin tespiti halinde Bakanlıkça iptal edilir.

Ancak gerçek kişilerde izin sahibinin ölümü, altı ay içinde mirasçılarının talebi ile izin, kalan süre kadar mirasçılara veya temsilcileri adına yenilenebilir.

17- İzin herhangi bir şekilde sona ermesi halinde; her türlü bina ve tesisler çalışır durumda, eksiksiz ve bedelsiz olarak, yapılacak tebligat tarihinden itibaren en geç üç ay içinde orman idaresine teslim edilir. Teslim işlemlerinden önce veya devir işlemleri sırasında tesislerin sökülmesi, yıkılması ve kullanılan malzemelerin kaçırılmasından izin sahibi sorumludur. Orman idaresinin teslim almak istemediği tesisler ise yapılacak tebligatı takiben altı ay içinde izin sahibi tarafından sökülerek orman sınırları dışına çıkarılır. Aksi halde bu işlemler orman idaresince yaptırılır ve masrafları yüzde elli fazlası ile izin sahibinden tahsil edilir.

Kesin izin süresi izin sahibinin talebi halinde uzatılabilir. Kesin izin süresi, uzatmalar dahil toplam kırkdokuz yılı geçemez. Ancak izin maksat ve şartlarına uygun olarak faaliyet gösteren hak sahiplerinin izin süreleri; yer, bina ve tesislerin rayiç değeri üzerinden belirlenecek yıllık rayiç bedelle doksan dokuz yıla kadar uzatılabilir. Tesislerin orman idaresine devir işlemleri bu süre sonunda yapılır.

18- İzin sahasında eski ve tarihi eserlere rastlandığında izin sahibince çalışmalar durdurularak, eserler kazı yerinde muhafaza edilir, mahalli orman idaresine ve mülki amiriğe haber verilir.

19- Bu taahhüt senedindeki adres tebligat adresi olup izin sahibi adres değişikliklerini, değişikliği takip eden 10 iş günü içinde yazılı olarak orman idaresine bildirir. Aksi halde bu taahhüt senedinde yazılı adres tebligata esas adres kabul edilir.

20- İzin verilen sahanın bir bölümünün zorunluluk halinde bir başka tesis yapılması maksadıyla verilecek izin sahası ile aynı sahaya isabet etmesi halinde muvafakat verilir. Aksi halde mevcut izin faaliyetinin engellenmemesi kaydıyla gerekli tedbirler alınarak idarece resen izin verilebilir.

21- İzin verilen alanın bir bölümünün, zorunluluk halinde, yol, su, enerji nakil hattı gibi altyapı tesisleriyle Orman Kanununun 17 nci maddesinde yer alan tesislerin yapılması maksadıyla verilecek izin alanıyla kesişmesi ve izin sahibinin muvafakatı olmaması halinde mevcut izin faaliyetinin engellenmemesi için gerekli tedbirler talep sahibi tarafından alınması kaydıyla orman idaresi resen izin verebilir. İzin sahibi hiçbir hak talebinde bulunamaz.

İzin verilen yol, su, enerji nakil hattı gibi altyapı tesis izinlerinin bir başka ruhsat sahibi tarafından kullanılmak istenmesi halinde izin faaliyetinin engellenmemesi şartıyla izin sahibinin muvafakatı aranır, muvafakat verilmemesi halinde orman idaresince, orman alanlarının en az zarar görmesi maksadıyla bu altyapı tesislerinin kullanılmasına müsaade edilebilir.

Pasa döküm alanı, atık barajı gibi altyapı tesisi izinlerinde biriktirilen atık ve artıkların kamu kurum ve kuruluşlarının kendi projelerinde kullanılmak üzere talep edilmesi halinde orman idaresi izin sahibinin muvafakatı aranmaksızın resen izin verir. Verilen bu yeni izin sebebi ile izin sahibi hiçbir hak talebinde bulunamaz.

İzin verilen tesis alanları ile yol, su, enerji nakil hattı gibi altyapı tesis alanlarından Orman ve Su İşleri Bakanlığı ve bağlı kuruluşlarının proje ve faaliyetlerinde kullanılması ihtiyacı hasıl olduğunda orman idaresi, izin sahibinin muvafakatı aranmaksızın resen izin verir. Verilen bu yeni izin sebebi ile izin sahibi hiçbir hak ve bedel talebinde bulunamaz.

Orman ve Su İşleri Bakanlığı veya bağlı kuruluşlarının faaliyetleri sebebiyle karayolu istimlak sahalarının içerisinde boyuna ve enine geçiş talep etmeleri halinde, bu talep Karayolu Genel Müdürlüğünce herhangi bir bedel talep edilmeksizin karşılanacaktır.

22- İzin verilen yollar umumun kullanımına açık tutulacaktır. İzin verilen yollar çevreye zarar vermeyecek şekilde ekskavatörle yapılacaktır, yol yapımından çıkan malzeme ormana zarar vermeyecek şekilde izinli alanlara taşınacaktır. İzin sahibinin orman yollarından yararlanması halinde bu yollara verdiği zararlar izin sahibince karşılanır.

23- İzin sahibi, izin verilen sahada ve inşa edilen tesislerde her türlü güvenlik tedbirini almak zorunda olup, zarar görecekt üçüncü kişilere karşı sorumludur.

24- İhtilaf halinde; bu taahhüt senedi hükümlerine göre, bu taahhüt senedinde hüküm bulunmayan hallerde ise kanun, yönetmelik ve ilgili mevzuat hükümlerine göre hareket edilir.

25- Mevzuat değişikliği nedeniyle ortaya çıkabilecek yükümlülüklerden orman idaresi sorumlu tutulamaz.



26- İzin verilen alanın diğer kanunlar uyarınca izin, görüş, muvafakat alınması gereken yerlerden olması halinde izin sahibince gerekli izin, muvafakat ve görüşler alınarak çalışma yapılacaktır. Aksi halde doğacak her türlü sorumluluk izin sahibine aittir. Muvafakat ve görüşler idare tarafından talep edilmesi halinde ibraz edilecektir.

27- Orman alanı dışındaki demiryolu, otoyol, Devlet ve il yolları ile su isale hatlarının yapımında zorunlu olarak ortaya çıkan kazı fazlası malzemenin depolanması maksadıyla verilen izinler hariç, Orman Kanununun 17/3 ve 18 inci Maddelerinin Uygulama Yönetmeliğine göre verilen izne konu tesislerin inşaatı esnasında ormanlık alandan çıkan orman toprağını da içeren kazı fazlası malzemelerin depolanacağı izin alanlarına, izin alanı dışından getirilecek herhangi bir malzeme dökülemez.

28- Balık üretim tesislerinde kesin izni takip eden sekiz ay içinde yatırıma başlanılmamış olması, kesin izni takip eden iki yıl içinde işletmeye açılmamış olması veya izin süresi son günü mesai bitimine kadar yenilenmiş su tahsis/kullanma belgesi veya bu belgenin yenilenmesi işlemlerinin yürütüldüğüne dair ilgili kurumdan alınacak belge ile birlikte bölge müdürlüğüne izin uzatma talebinde bulunulmaması ve ilgili kurumdan alınacak su tahsis/kullanma belgesinin mücbir sebep olmaksızın en geç üç ay içinde ibraz edilmemesi halinde izin resen iptal edilebilir.

29- Odun kömürü ocak izinlerinde; Ocak izni verilerek işletilen ocaklarda kaçak orman emvali kullanılmayacaktır. Kaçak orman emvalinin kullanıldığının tespiti halinde izin işlemi iptal edilerek yasal işlem yapılır.

30- Bu taahhüt senedinin uygulanmasında doğacak ihtilaflarda izne konu sahanın bulunduğu yer mahkemeleri ve icra daireleri yetkilidir.

31- Bu taahhüt senedi; genel bütçe kapsamındaki kamu idareleri ile kamu kurum ve kuruluşlarında kurum yetkililerince her sayfası onaylanan biri asıl üçü suret olarak, gerçek ve özel hukuk tüzel kişilerin noterden onaylı biri asıl üçü suret olarak düzenlenerek, en geç tebligat tarihinden itibaren üç ay(3 ay) içerisinde orman idaresine verilecektir.

32- Bu taahhüt senedinde yazılı hususlara aynen uyulacağını kayıtsız ve şartsız olarak kabul ve taahhüt ederim.

Özel Hükümler:

- 1- 18.04.2014 tarih ve 28976 sayılı Resmi Gazete'de yayınlanan Orman Kanununun 17/3 ve 18'inci Maddelerinin Uygulama Yönetmeliği ve Yönetmelikte Değişiklik Yapılmasına Dair diğer Yönetmelik hükümlerini kabul ve taahhüt ediyorum.
- 2- Kayseri İl Kültür ve Turizm Müdürlüğü'nün 08.12.2020 tarih ve 935021 sayılı yazısında belirtilen hususlara uyulacağını kabul ve taahhüt ediyorum.
- 3- Kayseri Valiliği Çevre ve Şehircilik İl Müdürlüğü'nün 03.11.2020 tarih ve 22282 sayılı yazısında belirtilen hususlara uyulacağını kabul ve taahhüt ediyorum.
- 4- DSİ 12.Bölge Müdürlüğü'nün 30.10.2020 tarih 683993 sayılı yazısında belirtilen hususlara uyulacağını kabul ve taahhüt ediyorum.

İşbu taahhüt senedi OTUZ İKİ (-32-) genel, Dört (4) özel maddeden ibarettir. /... /2021

İzin Sahibinin

Adı Soyadı/Unvanı : Kayseri Büyükşehir Belediye Başkanlığı
Vergi No : Mustafa Kemal Paşa Bulvarı No:15 Kocasinan /
KAYSERİ
Adresi :
E-Posta Adresi :
Telefon Numarası :

Mühür ve imza
S. Bayar ÖZSOY
Kayseri Büyükşehir Belediye Başkanı

Permit for Temporary Road Use on Land Allocated by the Kayseri Provincial Mufti's Office

Outgoing Correspondence



T.C.
KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞI
Etüt ve Projeler Daire Başkanlığı

Kayseri Büyükşehir Belediyesi
Etüt ve Projeler Daire Başkanlığı
Sayı: E-26242767-622.03-2025-62/15618
Tarih: 20.06.2025
Dosya Numarası: 2025-67475



Sayı : E-26242767-622.03-2025-62/15618
Konu : Kartal Katlı Kavşağı ve
Bağlantı Yolları Projesi
Kapsamında Geçici Yollar Hk.

20.06.2025

KAYSERİ İL MÜFTÜLÜĞÜNE

"Kartal Katlı Kavşağı ve Bağlantı Yolları Projesi" kapsamında inşaat süresi boyunca geçici güzergah olarak kullanılmak üzere sirkülasyon şeması tarafımızca belirlenmiştir. Bu sirkülasyon şemasında belirlenen yolların bir kısmı, kurumunuza tahsisli Erenköy Mahallesi 13835 Ada 6 Parselde yer alan "Cami Alanı" içerisinde geçmektedir. Cami alanı içerisinde geçen kısım ile ilgili kroki yazımız ekinde gönderilmiş olup; Cami alanından geçen yol 250 metre uzunluğunda, 15.5 metre genişliğinde, 3 şeritli, tek yön olarak belirlenmiştir. Bahsi geçen geçici güzergah ile ilgili gerekli izinlerin verilmesi hususunda; Gereğini rica ederim.

Dr. Ufuk SEKMEN
Başkan a.
Genel Sekreter Yardımcısı

Ek :
1- Cami Alanından Geçen Geçici Yol
2- Cami Alanından Geçen Geçici Yol İmar Verisi

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Doğrulama Kodu: 1BE20939

Doğrulama Adresi: <https://turkiye.gov.tr/kayseri-buyuksehir-belediyesi-ebys>

Adres: Mustafa Kemal Paşa Bulvarı No:15
Posta Kodu: 38010 Kocasinan / KAYSERİ
Telefon No: (0352) 222 8960 Fax No: (0352) 222 8958
Kep Adresi: kayseribelediyesi@hs01.kep.tr
Web Adresi: <https://www.kayseri.bel.tr>

Bilgi için: SEYFİ ALİ ÜLKER - Proje ve
Planlama Şb. Md. V.
Telefon No:(0 352) 207 16 58



Incoming Correspondence



T.C.
KAYSERİ VALİLİĞİ
İl Müftülüğü
İdari Ve Mali İşler Şube Müdürlüğü



Sayı : E-35109208-800-6466804
Konu : Kartal Katlı Kavşağı ve Bağlantı Yolları
Projesi Kapsamında Geçici Yollar Hk.

23.06.2025

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA

İlgi : 20.06.2025 tarihli ve E-26242767-622.03-2025-62/15618 sayılı yazınız.

İlgi yazınızda bahsedilen geçici güzergah hakkında ilimiz müftülüğünce herhangi bir sakınca bulunmamaktadır.

Bilgilerinize arz ederim.

Vedat TEKİN
İl Müftü V.

Ek: İlgi (a) Yazı

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 7BDB94DC-6D3D-4BC1-88F9-90368CE55C96 Doğrulama Adresi: <https://www.turkiye.gov.tr/>
Hunat Mah. Seyyid Burhaneddin Bul. No:6/B 38030 Melikgazi / KAYSERİ Bilgi için: Senih KARAKAŞ
0 352 222 20 88 Set
0 352 222 88 97 Telefon No:(352) 222 20 88
KEP Adresi : kayserimuftulugu@hs03.kep.tr



Outgoing Correspondence



T.C.
KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞI
Etüt ve Projeler Daire Başkanlığı

Kayseri Büyükşehir Belediyesi
Proje ve Planlama Şube Müdürü
Sayı: E-58535219-622-2024-235/30688
Tarih: 09.12.2024
Dosya Numarası: 2024-122633

Sayı : E-58535219-622-2024-235/30688
Konu : Kartal Kavşağı ve Bağlantı
Yolları Projesi hk.

09.12.2024

KAYSERİ SU VE KANALİZASYON İDARESİ GENEL MÜDÜRLÜĞÜNE

Melikgazi İlçesi Erenköy, Esenyurt, Hunat ve Gültepe Mahalleleri Mustafa Kemal Paşa Bulvarı, Talas Bulvarı, Seyyid Burhaneddin Bulvarı, Mehmet Özhaseki Bulvarı ve Şht. Tanık Koçoğlu Bulvarı yol güzergahlarında planladığımız "Kartal Kavşağı ve Bağlantı Yolları Projesi" yazımız ekinde gönderilmiş olup, proje ile ilgili Kurum görüşünüzün tarafımıza bildirilmesi hususunda; Gereğini arz ederim.

Dr. Ufuk SEKMEN
Başkan a.
Genel Sekreter Yardımcısı

Ek :Kartal Kavşağı ve Bağlantı Yolları Projesi (1 CD)

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Doğrulama Kodu: C5F6BF42

Doğrulama Adresi: <https://turkiye.gov.tr/kayseri-buyuksehir-belediyesi-ebys>

Adres: Mustafa Kemal Paşa Bulvarı No:15
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Kep Adresi: kayseribelediyesi@hs01.kep.tr
Web Adresi: <https://www.kayseri.bel.tr>

Bilgi için: BEYZA TUNCA - Mimar



Incoming Correspondence



T.C.
KAYSERİ BÜYÜKŞEHİR BELEDİYESİ SU VE KANALİZASYON
İDARESİ GENEL MÜDÜRLÜĞÜ
Plan Proje Dairesi Başkanlığı

Sayı : E-79554265-755.01-68757
Konu : Kartal Kavşağı ve Bağlantı Yolları Projesi
Hk.

30.06.2025

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA
Etüt ve Projeler Daire Başkanlığı

İlgi : Kayseri Büyükşehir Belediyesi 09.12.2024 tarihli ve E-58535219-622-2024-235/30688 sayılı yazı.

İlgi yazıda bahsi geçen, Kartal Kavşağı ve bağlantı yolları altyapı projeleri ilgili teknik personelimiz tarafından incelenmiş olup, tarafımızca her hangi bir sakınca bulunmamaktadır.
Gereğini bilgilerinize arz ederim.

Hamdi ELCUMAN
Genel Müdür a.
Genel Müdür Yardımcısı

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Kodu : 8YLH-AT11-88IU

Belge Doğrulama Adresi : <https://ebys.kaski.gov.tr/Sorgu/sorgula.aspx>

Adres: Yakut Mah. Mustafa Kemal Paşa Bul. No:186 P.K.:38090 Kocasinan /
KAYSERİ
Telefon No : 352 432 0 432
e-Posta :
Kep Adresi : kaski@hs03.kep.tr

Fax No : 352 337 09 32
İnternet Adresi : www.kaski.gov.tr

Bilgi İçin :Fatma GÜLDESTE
Memur
Dahili No:352 432 22 01



Annex C – Title Deeds

State Treasury Title Deeds

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 11-12-2024-11:06



Kayıd Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	418/27
Taşınmaz Kimlik No:	39605202	AT Yüzölçüm(m2):	7055.71
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	KÖŞKDAĞI Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	14/1330	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	YOL

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
105869319	(SN:47) MALİYE HAZİNESİ <input type="text"/>	-	1/1	7055.71	7055.71	İfraz İşlemi (TSM) 09-04-2010 7611	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) XPHqrKvSXgB kodunu Online İşlemler
alanına yazarak doğrulayabilirsiniz.



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BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 11-12-2024-11:06



Kayıt Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	418/28
Taşınmaz Kimlik No:	39605203	AT Yüzölçüm(m2):	11570.10
İl/İlçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	KÖŞKDAĞI Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	14/1331	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	YOL

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
105869320	(SN:47) MALİYE HAZİNESİ <input type="text"/>	-	1/1	11570.10	11570.10	İfraz İşlemi (TSM) 09-04-2010 7611	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) _hF3BYBhTRY kodunu Online İşlemler
alanına yazarak doğrulayabilirsiniz.



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BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 11-12-2024-11:06



Kayıd Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	418/30
Taşınmaz Kimlik No:	78724001	AT Yüzölçüm(m2):	3783.71
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	KÖŞKDAĞI Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	AĞZI AÇIK	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	15/1414	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Yol

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
220906472	(SN:47) MALİYE HAZİNESİ <input type="text"/>	-	1/1	3783.71	3783.71	İfraz İşlemi (TSM) 06-09-2012 20883	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) **DAMBUGLQ1ZR** kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.



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BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 11-12-2024-11:10



Kayıd Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	14093/1
Taşınmaz Kimlik No:	113366463	AT Yüzölçüm(m2):	2377.00
İl/İlçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	ERENKÖY Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	63/6255	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Yol

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
İrtifak	A.H:PARSELİN TAMAMI ÜZERİNDE KAYSERİ BELEDİYESİ LEHİNE İRTİFAK HAKKI TESİSLİDİR.(Şablon: Diğer İrtifak Hakkı)		Melikgazi - 22-02-2021 10:07 - 8846	
Beyan	İŞBU PARSEL İRTİFAK HAKKI İÇİN OLUŞTURULMUŞTUR. BAŞKA AMAÇLA KULLANILAMAZ.(Şablon: Diğer)		Melikgazi - 22-02-2021 10:07 -	

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MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
569274636	(SN:47) MALİYE HAZİNESİ <div></div>	-	1/1	2377.00	2377.00	Tescil Edilmeyen Taşınmaz Kayıtlarının Yeniden Tescili 22-02-2021 8846	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) OUxCC4fGPOZa kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.



Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	439/19
Taşınmaz Kimlik No:	32963432	AT Yüzölçüm(m2):	73605.26
İl/İlçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	GEDİRİS Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	11/1063	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Yol

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
Beyan	TASARRUF KROKİSİNDE MEVKİ RÖPERLİ VE SARI İLE BOYALI KISIMDAKİ DEMİRYOLU FEN MALZEMESİNİN TCDD YOLLARI UMUM MÜDÜRLÜĞÜNE AİTTİR. (Şablon: Diğer)			
Beyan	Diğer (Konusu: MELİKGAZİ KADASTRO MÜDÜRLÜĞÜNÜN 13/05/2010 TARİH 701 SAYILI YAZISI İLE 3402 SAYILI KANUNUN 22.MADDESİNİN	(SN:6193184) MELİKGAZİ		

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	2.FIKRASININ A BENDİNE GÖRE KADASTRO YENİLEMESİ VARDIR.) Tarih: 13/05/2010 Sayı: 701(Şablon: 3402 Sayılı Kadastro Kanunun 22. Md. Fıkrasının (a) Bendİ Gereğİ Belirtme.)	KADASTRO MÜDÜRLÜĞÜ VKN:		
Beyan	YOL OLARAK TERKİN EDİLEN 769,47 M2 KISIM AMACI DIŞINDA KULLANILAMAZ 14/05/1998 Y: 2572(Şablon: Diğer)		Melikgazi - 14-05-1998 00:00 - 2572	
İrtifak	A: H. KROKİSİNDE GÖSTERİLEN 2377 M2 SAHA ÜZERİNDE KAYSERİ BELEDİYESİ LEHİNE İRTİFAK HAKKI(Şablon: Geçit Hakkı)	(SN:2340585) KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN:	Melikgazi - 14-04-1988 00:00 - 2266	
Beyan	ASKERİ HİZMETLERE TAHSİSLİDİR. T: 02/03/1967 Y:663(Şablon: Askeri güvenlik bölgesi belirtmesi)		Melikgazi - 02-03-1967 00:00 - 663	

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
79453420	(SN:47) MALİYE HAZİNESİ VKN: <input type="text"/>	-	1/1	73605.26	73605.26	İfraz İşlemi (TSM) 06-11-2008 30442	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) GnebhGecI7r kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

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BİLGİ AMAÇLIDIR

3 / 3

Public dedication procedures have been completed for the parcels numbered 1200/26, 1200/28, 1200/30, 1200/32, 13835/5, 17265/1, and 13835/7, which are owned by the State Treasury. These parcels are not registered in the land registry

Kayseri Metropolitan Municipality Title Deeds

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 11-12-2024-11:04



Kayıd Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	1/108
Taşınmaz Kimlik No:	7272292	AT Yüzölçüm(m2):	191.00
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	İSAAĞA Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	2/162	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	KARGİR EV

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
16230967	(SN: <input type="text"/>) KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN: <input type="text"/>	-	1/1	191.00	191.00	Mülkiyet ve Hisse Oranlarının Düzeltilmesi 06-09-1989 3685	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) TXS7m7ckrAk kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.



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Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	1/124
Taşınmaz Kimlik No:	7272308	AT Yüzölçüm(m2):	63.50
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	ISAAĞA Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	2/179	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	KARGIR EV

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
16230983	(SN: <input type="text"/>) KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN: <input type="text"/>	-	1/1	63.50	63.50	Mülkiyet ve Hisse Oranlarının Düzeltilmesi 06-09-1989 3685	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) Axi6H0n570P kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	1/125
Taşınmaz Kimlik No:	7272309	AT Yüzölçüm(m2):	61.50
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	İSAAĞA Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	2/180	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	KARGIR EV

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
16230984	(SN <input type="text"/> KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN <input type="text"/>)	-	1/1	61.50	61.50	Satış 24-07-1989 2812	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

1 / 2

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) Zqa_S3asiPv kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

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Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	533/7
Taşınmaz Kimlik No:	7306212	AT Yüzölçüm(m2):	1550.00
İl/ilçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	TONTAR Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	23/2204	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	TARLA

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
16291318	(SN: <input type="text"/> KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN: <input type="text"/>)	-	1/1	1550.00	1550.00	Mahkeme Kararı ile Satış (Şufa Gibi) 15-06-1993 3131	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) MjqBCtbBKrn kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

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Melikgazi Municipality Land

[illegible]

Private Lands

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 28-3-2025-10:46



Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	664/176
Taşınmaz Kimlik No:	134969177	AT Yüzölçüm(m2):	237.19
İl/İlçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	TONTAR Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	38/3745	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	YOL

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
870612561	(SN:1) KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN: <input type="text"/>	-	1/1	237.19	237.19	Uzlaşma/ Anlaşma Tutanağı ile Kamulaştırma İşlemi 25-03-2025	-

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Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) FFQgZWc6lk1v kodunu Online İşlemler
alanına yazarak doğrulayabilirsiniz.



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BU BELGE TOPLAM 3 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 28-3-2025-10:48



Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	664/178
Taşınmaz Kimlik No:	134939752	AT Yüzölçüm(m2):	13.74
İl/ilçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	TONTAR Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	38/3738	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Yol

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
Beyan	2942 Sayılı Kamulaştırma Kanununun 7. maddesine göre belirtme. (Şablon: 2942 Sayılı Kamulaştırma Kanununun 7. Maddesine Göre Belirtme)	(SN: <input type="text"/> KAYSERİ BÜYÜK ŞEHİR BELEDİYESİ İMAR VE ŞEHİRCİLİK DAİRESİ	Melikgazi - 21-11-2024 15:20 - 85152	

1 / 3

		BAŞKANLIĞINA VKN:	
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MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
868651278		-	23/24	13.17	13.74	Uzlaşma/ Anlaşma Tutanağı ile Kamulaştırma İşlemi 12-03-2025 19784	-
870362754		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025 23231	-
870362755		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025 23231	-
870362756		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025 23231	-
870362757		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025 23231	-
870362758		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025 23231	-
870362760		14575682 5	1/144	0.10	13.74	İntikal 24-03-2025	-

2 / 3

						23231	
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Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) BLBLCG626rLX kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.



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Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	664/179
Taşınmaz Kimlik No:	134939753	AT Yüzölçüm(m2):	54.98
İl/İlçe:	KAYSERİ/MELİKGAZI	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	TONTAR Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	38/3739	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Yol

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
868651279	<input type="text"/>	-	23/24	52.69	54.98	Uzlaşma/ Anlaşma Tutanağı ile Kamulaştırma İşlemi 12-03-2025	-

1 / 2

						19784	
870362762		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-
870362763		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-
870362764		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-
870362765		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-
870362766		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-
870362767		14575685 6	1/144	0.38	54.98	İntikal 24-03-2025 23231	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) Cn9MhwusXb3X kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

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Kaydı Oluşturan: (Kayseri Büyükşehir Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasınmaz	Ada/Parsel:	664/181
Taşınmaz Kimlik No:	135051516	AT Yüzölçüm(m2):	127.04
İl/İlçe:	KAYSERİ/MELİKGAZİ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Melikgazi	Bağımsız Bölüm Brüt Yüzölçümü:	
Mahalle/Köy Adı:	TONTAR Mah.	Bağımsız Bölüm Net Yüzölçümü:	
Mevkii:	TONTAR	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	38/3752	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	YOL

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
Beyan	2942 Sayılı Kamulaştırma Kanununun 7. maddesine göre belirtme. (Şablon: 2942 Sayılı Kamulaştırma Kanununun 7. Maddesine Göre Belirtme)	<input type="text"/> KAYSERİ BÜYÜK ŞEHİR BELEDİYESİ İMAR VE ŞEHİRCİLİK DAİRESİ	Melikgazi - 21-11-2024 15:20 - 85152	

1 / 2

<input type="text"/>	<input type="text"/>	BAŞKANLIĞINA	<input type="text"/>
		VKN:	<input type="text"/>

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
860519656	(SN:2340585) KAYSERİ BÜYÜKŞEHİR BELEDİYESİ VKN <input type="text"/>	-	1/1	127.04	127.04	Uzlaşma/ Anlaşma Tutanağı ile Kamulaştırma İşlemi 17-01-2025 4448	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (<https://webtapu.tkgm.gov.tr> adresinden) Z88IOPy5ub-K kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

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VAKIFBANK

İŞLEM BİLGİLERİ

İŞLEM TÜRÜ	Gönderilen havale	İŞLEM TARİHİ	14.03.2025
MİKTARI	395.300,00 TL	İŞLEM SAATİ	10:47:31
IBAN NO	<input type="text"/>	İŞLEM NO	2025003690213930

İŞLEM AÇIKLAMASI

MELİKGAZİ İLÇESİ TONTAR MAH. 664 ADA 176 PARSEL NUMARALI TAŞINMAZIN KAMULAŞTIRMA BEDELİ ÖDEMESİ
[REDACTED] TR03 0001 5001 58** **** **32 58 nolu KAYSERİ BÜYÜKŞEHİR BELEDİYESİ
hesabından TR[REDACTED] nolu KAYSERİ 7.SULH HUKUK MAHKEMESİ hesabına
2025031400225780 referans nolu havale yapılmıştır.

Türkiye Vakıflar Bankası T.A.O
Finanskent Mahallesi Finans Caddesi No:40/1 Ümraniye/İSTANBUL
Mersis No: 0922003497000017 www.vakifbank.com.tr

Bu dekont bilgilendirme amaçlı hazırlanmıştır. Dekont üzerinde herhangi bir değişiklik yapılması ve/veya bu dekont üzerindeki bilgiler ile banka kayıtlarının uyuşmaması halinde banka kayıtları esas alınacaktır.

VAKIFBANK

İŞLEM BİLGİLERİ

İŞLEM	HESABA EFT	İŞLEM TARİHİ	30.04.2025 12:27:04
ALICI BANKA	TÜRKİYE İŞ BANKASI A.Ş.	ALICI ŞUBE	IBAN MERKEZ ŞUBE
ALICI HESAP NUMARASI	TR4 <input type="text"/> 94	ALICI AD SOYAD/UNVAN	G <input type="text"/>
GONDEREN ŞUBE	KAYSERİ ŞUBESİ	GONDEREN AD SOYAD/UNVAN	KAYSERİ BÜYÜKŞEHİR BELEDİYESİ
İŞLEM TUTARI	85.800,00 TL	MASRAF TUTARI	
EFT SORGU NO	3312952	İŞLEM NO	2025006242657589




İŞLEM AÇIKLAMASI




MELİKGAZİ İLÇESİ TONTAR MAH. 664 ADA 178



Türkiye Vakıflar Bankası T.A.O
Finanskent Mahallesi Finans Caddesi No:40/1 Ümraniye/İSTANBUL
Mersis No: 0922003497000017 www.vakifbank.com.tr

Bu dekont bilgilendirme amaçlı hazırlanmıştır. Dekont üzerinde herhangi bir değişiklik yapılması ve/veya bu dekont üzerindeki bilgiler ile banka kayıtlarının uyuşmaması halinde banka kayıtları esas alınacaktır.

Annex D – Site Photographs

Photo No: 01		
Date: 12.02.2025		
Location: Subproject area		
Details/Notes: Trees In The Project Area		
Photo No: 02		
Date: 12.02.2025		
Location: The school boundary included in the project area		
Details/Notes:		
Photo No: 03		
Date: 12.02.2025		
Location: K-3 Intersection Point		
Details/Notes:		
Photo No: 04		
Date: 12.02.2025		
Location: K-1 Intersection Point		

<p>Details/Notes:</p>	
<p>Photo No: 05</p>	
<p>Date: 12.02.2025</p>	
<p>Location: K-2 Intersection Point</p>	
<p>Details/Notes:</p>	
<p>Photo No: 6</p>	
<p>Date: 12.02.2025</p>	
<p>Location: Private Lands that near the Sub Project area</p>	
<p>Details/Notes:</p>	
<p>Photo No: 07</p>	
<p>Date: 12.02.2025</p>	
<p>Location: Doner Tomb, Hunat Neighborhood</p>	

<p>Details/Notes:</p>	
<p>Photo No: 08</p>	
<p>Date: 12.02.2025</p>	
<p>Location: Subproject area</p>	
<p>Details/Notes: An information board at the project area</p>	

Annex E – E&S Incident Notification Form Template

1) Incident Details			
Date of Incident: <i>[Please indicate]</i>	Time of Incident: <i>[Please indicate]</i>		
Location of the Incident:	<i>[Please indicate]</i>		
Full Name of Sub-borrower:	<i>[Please indicate]</i>		
Date Reported to ILBANK: <i>[Please indicate]</i>	Reported to ILBANK by: <i>[Please indicate]</i>	Notification Type: <i>[Please indicate; e-mail/phone call/media notice/other]</i>	
Date Reported to WB: <i>[Please indicate]</i>	Reported to WB by: <i>[Please indicate]</i>	Notification Type: <i>[Please indicate; e-mail/phone call/media notice/other]</i>	
Full Name of the Contractor of the Subproject:	<i>[Please indicate]</i>		
Full Name of the Sub-contractor involved in the incident:	<i>[Please indicate]</i>		
2) Type of incident (please check all that apply) ³²			
<input type="checkbox"/> Fatality <input type="checkbox"/> Lost time injury <input type="checkbox"/> Displacement without due process <input type="checkbox"/> Child labor <input type="checkbox"/> Forced labor <input type="checkbox"/> Disease outbreaks		<input type="checkbox"/> Acts of violence/protest <input type="checkbox"/> Unexpected impacts on heritage resources <input type="checkbox"/> Unexpected impacts on biodiversity resources <input type="checkbox"/> Environmental pollution incident <input type="checkbox"/> Dam failure <input type="checkbox"/> Other	
3) Description/Narrative of Incident			
<i>For example:</i> I. <i>What is the incident?</i> <i>[Please briefly describe]</i> II. <i>What were the conditions or circumstances under which the incident occurred (if known)?</i> <i>[Please briefly describe]</i> III. <i>Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?</i> <i>[Please briefly describe]</i> IV. <i>Is the incident still ongoing or is it contained?</i> <i>[Please briefly describe]</i> V. <i>Have any relevant authorities been informed?</i> <i>[Please briefly describe]</i>			
4) Actions taken to contain the incident			
Short Description of Action	Responsible Party	Expected Date	Status

³² See Appendix 2 for definitions.

Appendix 2: Incident Types

The following are incident types to be reported using the environmental and social (E&S) incident response process:

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected Impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hours or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Annex F – E&S Incident Investigation Form Template

1) Investigation Findings						
<p><i>For example:</i></p> <ul style="list-style-type: none"> I. <i>where and when the incident took place,</i> II. <i>who was involved, and how many people/households were affected,</i> III. <i>what happened and what conditions and actions influenced the incident,</i> IV. <i>what were the expected working procedures and were they followed,</i> V. <i>did the organization or arrangement of the work influence the incident,</i> VI. <i>were there adequate training/competent persons for the job, and was necessary and suitable equipment available,</i> VII. <i>what were the underlying causes; where there any absent risk control measures or any system failures.</i> 						
2) Corrective Actions from the investigation to be implemented (to be fully described in Corrective Action Plan)						
Action	Responsible Party		Expected Date			
3a) Fatality/Lost Time Injury Information						
Fatality <input type="checkbox"/>			Lost time injury <input type="checkbox"/>			
Immediate cause of fatality/injury for worker or member of the public (please check all that apply) ³³:						
<input type="checkbox"/> Caught in or between objects <input type="checkbox"/> Struck by falling objects <input type="checkbox"/> Stepping on, striking against, or struck by objects <input type="checkbox"/> Drowning <input type="checkbox"/> Chemical, biochemical, material exposure <input type="checkbox"/> Falls, trips, slips <input type="checkbox"/> Fire & explosion <input type="checkbox"/> Electrocution <input type="checkbox"/> Homicide			<input type="checkbox"/> Medical Issue <input type="checkbox"/> Suicide <input type="checkbox"/> Project Vehicle Work Travel <input type="checkbox"/> Non-project Vehicle Work Travel <input type="checkbox"/> Project Vehicle Commuting <input type="checkbox"/> Non-project Vehicle Commuting <input type="checkbox"/> Vehicle Traffic Accident (Members of Public Only) <input type="checkbox"/> Other			
Name	Age/ Date of Birth	Nationality	Gender	Date of Fatality/ Injury	Cause of Fatality/ Injury	Affected Party (Employee/ Public)
			<input type="checkbox"/> Female <input type="checkbox"/> Male			<input type="checkbox"/> Sub-borrower employee <input type="checkbox"/> Contractor employee <input type="checkbox"/> Sub-contractor employee <input type="checkbox"/> Public

³³ See Appendix 1 for definitions

3b) Financial Support/Compensation Types (to be fully described in Corrective Action Plan template – template is given in Appendix 3)			
<input type="checkbox"/> No Compensation Required <input type="checkbox"/> Workman's Compensation/National Insurance <input type="checkbox"/> Contractor Direct		<input type="checkbox"/> Contractor Insurance <input type="checkbox"/> Other <input type="checkbox"/> Court Determined Judicial Process	
Name	Compensation Type	Compensation Amount (TRY)	Responsible Party

4) Supplementary Narrative

Appendix 1: Definition of fatality/injury immediate causes
<p>1. Caught in or between objects: caught in an object; caught between a stationary object and moving object; caught between moving objects (except flying or falling objects).</p> <p>2. Struck by falling objects: slides and cave-ins (earth, rocks, stones, snow, etc.); collapse (buildings, walls, scaffolds, ladders, etc.); struck by falling objects during handling; struck by falling objects.</p> <p>3. Stepping on, striking against, or struck by objects: stepping on objects; striking against stationary objects (except impacts due to a previous fall); Striking against moving objects; Struck by moving objects (including flying fragments and particles) excluding falling objects.</p> <p>4. Drowning: respiratory impairment from submersion/emersion in liquid.</p> <p>5. Chemical, biochemical, material exposure: exposure to or contact with harmful substances or radiations.</p> <p>6. Falls, trips, slips: falls of persons from heights (e.g., trees, buildings, scaffolds, ladders, etc.) and into depths (e.g., wells, ditches, excavations, holes, etc.) or falls of persons on the same level.</p> <p>7. Fire & explosion: exposure to or contact with fires or explosions.</p> <p>8. Electrocution: exposure to or contact with electric current.</p> <p>9. Homicide: a killing of one human being by another.</p> <p>10. Medical Issue: a bodily disorder or chronic disease.</p> <p>11. Suicide: the act or an instance of taking, or attempting to take, one's own life voluntarily and intentionally.</p> <p>12. Others: any other cause that resulted in a fatality or injury to workers or members of the public.</p> <p><u>Vehicle Traffic</u></p> <p>13. Project Vehicle Work Travel: traffic accidents in which project workers, using project vehicles, are involved during working hours and which occur in the course of paid work.</p> <p>14. Non-project Vehicle Work Travel: traffic accidents in which project workers, using non-project vehicles, are involved during working hours and which occur in the course of paid work.</p> <p>15. Project Vehicle Commuting: traffic accidents in which project workers, using project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.</p> <p>16. Non-project Vehicle Commuting: traffic accidents in which project workers, using non-project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.</p> <p>17. Vehicle Traffic Accident (Members of Public Only): traffic accidents in which non-project workers/members of the public are involved in an accident while travelling for any purpose.</p>

Appendix 2: Supporting documents

[Note: Please mark the relevant documents available and submit them attached to the report]:

- ☐ Copy of the social security registration records of the victims and involved persons
- ☐ Copy of the instruction suspending the works
- ☐ Statement of victims
- ☐ Statement of witnesses
- ☐ Copies of notifications done to the relevant authorities
- ☐ Copies of legal investigation reports of relevant authorities
- ☐ Copies of E&S training records of the affected and involved persons
- ☐ Copies of OHS training records of the affected and involved persons (such as basic OHS training, induction training, visitors training, job-specific training, refreshment training, etc.)
- ☐ Photographs related to the incident
- ☐ Health examination records of the affected and involved employees
- ☐ Copies of Personal Protective Equipment delivery forms (signed copies)
- ☐ Root Cause Analysis completed for the incident
- ☐ Information/documentation related to any judicial process
- ☐ Others

Appendix 3: Corrective Action Plan template

Action No:	Brief Description of E&S non-compliance	Corrective Action	Financial and Human Resources Required	Responsible Party	Due Date for Completion of Corrective Action	Indicators for Successful Completion of Corrective Action	Status of Corrective Action

Annex G – Chance Finds Procedure

1. INTRODUCTION

This Chance Finds Procedure is a Subproject-specific procedure which will be followed in the Subproject if previously unknown cultural heritage is encountered during Subproject activities.

It will be included in all contracts relating to construction of the Subproject, including excavations, demolition, movement of earth, flooding or other changes in the physical environment.

1.1. SCOPE

This Procedure sets out how chance finds associated with the Subproject will be managed. The procedure includes a requirement to notify relevant authorities of found objects or sites by cultural heritage experts; to fence-off the area of finds or sites to avoid further disturbance; to conduct an assessment of found objects or sites by cultural heritage experts; to identify and implement actions consistent with the requirements of WB ESS8 and national legislation; and to train Subproject personnel and Subproject workers on chance find procedures.

1.2. DEFINITIONS

Chance Find	According to WB ESS8, a chance find is archaeological material encountered unexpectedly during Project/Subproject construction or operation. Most often, chance finds occur during the construction phase of a Project/Subproject. Such finds include, for example, the discovery of a single artifact, an artifact indicating the presence of a buried archaeological site, human remains, fossilized plant or animal remains or animal tracks, or a natural object or soil feature that appears to indicate the presence of archaeological material.
Museum(s)	Kayseri Museum Directorate Phone: 0 352 222 21 49 E-mail: kayserimuzesi@kulttur.gov.tr Address: Cumhuriyet Mahallesi Kaleiçi Çarşı Kümeevler No:1/1 Melikgazi / KAYSERİ Website: https://kvmgm.ktb.gov.tr/TR-295681/kayseri-muze-mudurlugu.html
Regional Board(s) for the Conservation of Cultural Heritage	Kayseri Regional Directorate of the Board for the Conservation of Cultural Heritage Phone: (0352) 231 16 25 E-mail: kayserikurul@ktb.gov.tr Address: Tacettin Veli Mahallesi Lalezade Cad. No:6 Kışıkapı – MELİKGAZİ / KAYSERİ Website: https://kvmgm.ktb.gov.tr/TR-43083/kayseri-kultur-varliklarini-koruma-bolge-kurulu-mudurlugu.html

1.3. REFERENCES

- Law on the Conservation of Cultural and Natural Assets (Law No: 2863, 1983)
- [Principal Decision No. 658](#) on Archaeological Sites, Conservation and Utilization Conditions

2. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the Subproject parties associated with the implementation of this Procedure are described in Table 2.

The Sub-borrower will ensure that all Subproject personnel (including direct or contracted workers) involved in site works are trained by qualified staff on this Subproject-specific Chance Finds Procedure and its implementation upon recruitment.

Table 2. Roles and Responsibilities associated with Chance Finds Procedure Implementation

Party	Role	Responsibilities
Sub-borrower		
Kayseri Metropolitan Municipality	[Environmental Expert of PIU]	<ul style="list-style-type: none"> Ensuring this procedure will be implemented during the Subproject. Ensuring implementation of this Plan by fulfilling the requirements, Informing/Reporting the ILBANK about the findings and progresses, Monitoring of the construction works, Ensuring the Subproject compliance with the Project Standards and other requirements set out in this ESMP, Conducting of cultural heritage assessment processes, Ensuring activities do not disturb cultural heritage sites without appropriate approvals.
Kayseri Metropolitan Municipality	[Social Expert of PIU]	<ul style="list-style-type: none"> Training of the employees about cultural heritage and chance find procedure, Coordinating organizations and other stakeholders for implementing this Procedure, Supporting Environmental Expert of PIU in case of need.
Construction Supervision Consultants ("Müşavir")	[Environmental & Social Experts of]	Carry out the following tasks on behalf of the sub-borrowers: <ul style="list-style-type: none"> Controlling whether contractors receive training in accordance with this procedure through KPIs,
Construction Contractor	[Environmental & Social Expert of Contractor]	<ul style="list-style-type: none"> Complying with the requirements and standards of this Chance Find Procedure, Fulfilling the works under the contract, Completing the Subproject awareness and competency training before commencement of work, Complying with the requirements of this Procedure and ESMP.
Construction Contractor	Workers	<ul style="list-style-type: none"> Being trained about Cultural Heritage and Chance Find Procedure through induction training and other training provided.

3. CHANCE FINDS PROCEDURE

The following step-by-step procedure will be followed if previously unknown cultural heritage is encountered during Subproject activities.

Step 1 – Immediate actions following the discovery of a Chance Find

- 1) All works in the survey area shall cease.
- 2) Transitional buffer zones shall be established around the chance find area.
- 3) Site management and the Museum Archaeologist shall be contacted immediately.
- 4) The chance find site shall be adequately secured by markings, signposts, and banners, etc.
- 5) Protection of the chance find site shall not be transported, lifted or damaged further.

Step 2 – Registration

- 1) Chance Find Notification Form Section A shall be filled in by the relevant Subproject representative (such as environmental or social staff – to be designated by the Contractor upon appointment) and a copy shall be forwarded to the Contractor's management and the Sub-borrower in **24 hours** of the discovery.
- 2) Completed Chance Find Notification Form Section A s shall be forwarded by the Contractor's management to the Sub-borrower in **48 hours** of the discovery.

Step 3 – Communication with Local Authorities

- 1) The director of the respective museum shall be notified by the relevant Subproject representative regarding the chance find.

Step 4 – Museum Assessment and Decision

- 1) The Museum officials evaluate the significance of the discovery and determines the required actions:
 - a) Site/Chance Find is of No Significance:
 - The Museum officials declare the site or find as **insignificant**.
 - Records are maintained and chance finds procedure is closed.
 - No further action is required. Construction activities may resume.
 - b) Site/Chance Find is Significant:
 - The Museum officials declare the site or find as **significant**.
 - The Museum officials decide on further action and notify the relevant Subproject representative.
 - The Subproject representative communicates with the Sub-borrower and relevant Subproject parties to coordinate actions.

Step 5 – Site Survey

- 1) The Subproject's site workers are notified by relevant Subproject representative regarding the decision and instructions of the relevant Museum Directorate.
- 2) The Museum officials determine the significance level of the site/chance find following a site survey.
 - a) Sites/chance finds of **minor** significance:
 - The Museum officials declare the site or find as of minor significance.
 - The relevant Subproject representative notifies the Contractor's management.
 - The Contractor's management notify the Sub-borrower.
 - Records are maintained by the relevant Subproject representative and chance finds procedure is closed.
 - No further action is required. Construction activities may resume.
 - b) Sites/chance finds of **moderate** significance:
 - The Museum officials declare the site or find as of moderate significance and determine the actions to be implemented.
 - The relevant Subproject representative notifies the Contractor's management.

- The Contractor's management notify the Sub-borrower.
- The actions determined by the Museum Directorate are implemented by the Subproject:
 - Subproject management shall provide an archaeological task force under the leadership of the Museum officials. The task force shall be composed of qualified archaeologists as well as other specialists and workers.
 - The actions required by the Museum Directorate such as the test pit, salvage excavation or remote sensory surveys, shall be completed under the instructions and supervision of the Museum officials.
 - Upon completion of the required actions, the team shall report to the Museum Directorate.
 - Museum Directorate forwards the findings of the survey to the relevant Regional Board.
 - The Regional Board shall officially verify the completion actions and notifies the Subproject management accordingly.
- Records are maintained by the relevant Subproject representative and chance finds procedure is closed.
- No further action is required. Construction activities may resume.

c) Sites/chance finds of **high** significance:

- The Museum officials declare the site or find as of high significance and determine the actions to be implemented.
- The relevant Subproject representative notifies the Contractor's management.
- The Contractor's management notify the Sub-borrower.
- The actions determined by the Museum Directorate are implemented by the Subproject:
 - Subproject management shall provide an archaeological task force under the leadership of the Museum officials. The task force shall be composed of qualified archaeologists as well as other specialists and workers.
 - The actions required by the Museum Directorate such as the test pit, salvage excavation or remote sensory surveys, shall be completed under the instructions and supervision of the Museum officials.
 - Upon completion of the required actions, the team shall report to the Museum Directorate.
 - Museum Directorate forwards the findings of the survey to the relevant Regional Board.
 - The Regional Board shall officially verify the completion actions and notifies the Subproject management accordingly.
 - As required, the site shall be registered and placed under protection as per Turkish legislation in accordance with the Law on the Conservation of Cultural and Natural Assets (Law No: 2863, 1983).

If human remains are discovered, the entire Subproject team shall be immediately notified by the Subproject management.

The Subproject management shall also immediately notify the Sub-borrower.

All activities in the area shall cease, and the site shall be secured until further instructions are provided by relevant authorities.

4. MONITORING AND REPORTING

The Contractor's and construction supervision consultant's E&S staff shall conduct advance pre-construction surveys and monitoring of all ground disturbing activities, especially in the locations with a high likelihood of cultural heritage.

Detailed information on chance finds discovered during the Subproject implementation, if any, shall be included by the Sub-borrower in the Periodic Monitoring Reports to be submitted to ILBANK, in accordance with the requirements outlined in the sub-financing agreement.

The Subproject representative shall retain copies of all documentation related to the chance find.

All actions and decisions taken by the cultural heritage authorities shall be clearly recorded and stored in the Subproject's E&S database.

5. REPORTING TEMPLATES

5.1. CHANCE FINDS NOTIFICATION FORM

PART A BÖLÜM A		
Date: <i>Tarih</i>		Form No: <i>Form No</i>
Sub-borrower: <i>Alt borçlu</i>		Subproject: <i>Alt Proje</i>
Construction Supervision Consultant: <i>Müşavir Firma</i>		Contractor: <i>Yüklenici</i>
Subproject Location <i>Alt Proje Sahası</i>	District: <i>İlçe</i>	Neighborhood/Village: <i>Mahalle/Köy</i>
Name of person reporting chance find: <i>Rastlantısal bulguyu rapor eden kişinin ismi</i>		
IMMEDIATE ACTIONS ACİL ÖNLEMLER		
Was work stopped in the immediate vicinity of the chance find? <i>Rastlantısal bulgunun tam çevresinde iş durduruldu mu?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
Was a buffer zone created to protect the chance find? <i>Rastlantısal bulguyu korumak için tampon bölge oluşturuldu mu?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
Contractor's management representatives (e.g. Project/Site Manager) contacted? <i>Yüklenici yönetim temsilcileri (ör. Proje/Saha Müdürü) ile irtibata geçildi mi?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
Supervision Consultant's E&S team contacted? <i>Müşavir firma Ç&S ekibi ile irtibata geçildi mi?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
Sub-borrower contacted? <i>Alt borçlu ile irtibata geçildi mi?</i>	<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>
CHANCE FIND DETAILS RASTLANTISAL BULGU AYRINTILARI		
GPS coordinates <i>GPS koordinatları</i>	Photo record <i>Fotoğraf kaydı</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Evet Hayır</i> Other records <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Diğer kayıtlar</i> <i>Evet</i> <i>Hayır</i> Specify (drawings, HD quality videos, etc.): <i>Belirtin (çizimler, HD kalite videolar, vb.)</i>	
Description of chance find: <i>Tesadüfi buluntunun tanımı</i>		
Description of site/finding and other specifications of site/finding: (e.g. surface sediment type, ground surface visibility, distance to closest watercourse, etc.) <i>Sahanın / bulgunun ve saha/bulgunun diğer özelliklerinin tanımı: (örn. Yüzey sediman türü, yüzey zemin görünürlüğü, en yakın su yoluna olan mesafe, vb.)</i>		

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PART B BÖLÜM B		
NOTIFICATION OF MUSEUM DIRECTORATE OFFICIALS MÜZE MÜDÜRLÜĞÜ YETKİLİLERİNE BİLDİRİM		
Subproject representative contacted relevant Museum Directorate? <i>Alt proje temsilcisi müze müdürlüğü ile irtibata geçti mi?</i>		
<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>	
Date of notification: <i>Bildirim tarihi</i>		
Name of Museum Directorate: <i>Müze müdürlüğünün adı</i>		
Name of the relevant Museum official: <i>Müze Müdürlüğü yetkilisinin adı</i>		
Contact number of the official: <i>Yetkilinin iletişim numarası</i>		
DECISION OF MUSEUM DIRECTORATE ARCHAEOLOGIST MÜZE MÜDÜRLÜĞÜ ARKELOĞUNUN KARARI		
Date of site visit: <i>Saha ziyaret tarihi:</i>		
<input type="checkbox"/> Site/Finding of no significance – Construction to proceed with no further action – End of chance find procedure <i>Önemsiz Saha – Bulgu - daha fazla araştırma yapılmadan inşaat devam edilebilir – Rastlantısal Buluntu prosedürün sonu.</i>	<input type="checkbox"/> Site/Finding of <u>significance</u> – Further actions required <i>Önemli Saha – Bulgu - Ek araştırma gerekmektedir Please Fill out Part C Lutfen Bölüm C'yi doldurun.</i>	
Date of notice to resume work: <i>İşe devam etme tarihinin bildirisi</i>		
Name of Museum directorate official: <i>Müze müdürlüğü yetkilisinin ismi</i>		
Contact information: <i>İletişim numarası</i>		
Contractor's management representatives (e.g. Project/Site Manager) contacted? <i>Yüklenici yönetim temsilcileri (ör. Proje/Saha Müdürü) ile irtibata geçildi mi?</i>		
<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>	
Supervision Consultant's E&S team contacted? <i>Müşavir firma Ç&S ekibi ile irtibata geçildi mi?</i>		
<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>	
Sub-borrower contacted? <i>Alt borçlu ile irtibata geçildi mi?</i>		
<input type="checkbox"/> Yes <i>Evet</i>	<input type="checkbox"/> No <i>Hayır</i>	
PART C – FURTHER FIELD INVESTIGATION BÖLÜM C – İLAVE SAHA ARAŞTIRMALARI		
<input type="checkbox"/> Site/Finding of minor significance <i>Az önem taşıyan saha/bulgu</i>	<input type="checkbox"/> Site/Finding of moderate significance <i>Orta derecede önemli saha/bulgu</i>	<input type="checkbox"/> Site/Finding of high significance <i>Çok önemli saha/bulgu</i>
Describe additional actions required to be implemented: <i>İlave aksiyonların tanımı</i>		

PART D – IMPLEMENTATION OF ACTIONS AND RESUMPTION OF WORKS BÖLÜM D – AKSİYONLARIN TAMAMLANMASI VE İŞE DEVAM	
Date of actions started: <i>Aksiyonların başlangıç tarihi:</i>	Date of notice from the cultural heritage authorities to resume work: <i>Otorilerden alınan işe devam izni tarihi:</i>
Date of actions completed: <i>Aksiyonların tamamlanma tarihi:</i>	

5.2. CHANCE FINDS LOG

Date of Chance Find Discovery	Brief Description of the Chance Find	Notification of Subproject Parties/ Representatives	Notification of Relevant Authorities	Actions Required by the Authorities	Status of Actions (open or losed	Other Remarks

Annex H – Change Notification Form

Change Notification Form	
Subproject Name	
Subproject Location	
Subproject Phase	<input type="checkbox"/> Pre-construction
	<input type="checkbox"/> Construction
	<input type="checkbox"/> Operation
Name of the Institution Notifying the Change	
Date	
Category of the Change <i>(please select all that apply)</i>	<input type="checkbox"/> Legislative Change
	<input type="checkbox"/> Design Change
	<input type="checkbox"/> Schedule Change due to E&S factors
	<input type="checkbox"/> Project Schedule Changes due to technical, financial, legal or administrative factors
	<input type="checkbox"/> Changes due to E&S issues encountered at Subproject implementation
	<input type="checkbox"/> Contractor or Construction Supervision Consultant Change
	<input type="checkbox"/> Other <i>(please specify below)</i>
Detailed Description of the Change(s)	
Documents Submitted with Change Notification Form	
Name of the Staff Notifying the Change	
Position of the Staff Notifying the Change	
Signature	

Annex I Regulations and/or Communiques Regarding Environmental, Social, Labor, Health and Safety Aspects

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Environmental Permit and Licenses			
Regulation on Environmental Impact Assessment (EIA Regulation)	31907	29.07.2022	Scoping the Project and evaluating impacts during pre-construction, construction, and operation phases of the project.
Regulation on Environmental Permits and Licensing	29115	10.09.2014	Determination of required environmental permits and licenses at all phases of the Project.
Regulation on Environmental Auditing	31509	12.06.2021	Environmental audits performed by either Project Owner or governmental authorities during construction and operation phases.
Regulation on the Implementation of the Law Concerning Private Security Services	25606	07.10.2004	During the construction phase for campsite security (in case of any) and during the operation phase for safety purposes for reservoirs (in case of any planning).
Regulation on Subcontractors	27010	27.09.2008	Principles, measures and management of subcontractors
Air Quality Control and Greenhouse Gas (GHG) Emissions			
Air Quality Assessment and Management Regulation (AQAMR)	26898	06.06.2008	Emissions during operation phase.
Industrial Air Pollution Control Regulation (IAPCR)	27277	03.07.2009	During the construction phase, dust emissions.
Regulation on the Control of Odor Causing Emissions	28712	19.07.2013	Possible odorous emissions generated during operation phase.
Regulation on the Monitoring of GHG Emissions	29003	17.05.2014	Procedures and principles of monitoring of GHG emissions
Regulation Concerning the Ozone Depleting Substances	30031	07.04.2017	Management and measures regarding the ozone depleting substances
Exhaust Gas Emission Control Regulation	30004	11.03.2017	Operation of Project vehicles, machinery, and equipment at all phases of the Project.
Regulation on the Control of Air Pollution from Heating	25699	13.01.2005	Heating of the operational buildings during operation phase.
Biodiversity Conservation and Protection of Nature			
Regulation on the Protection of Wetlands	28962	04.04.2014	Measures to be taken for wetland protection near to the Project area during the planning phase of the Project.
Law on Natural Parks	18132	11.08.1983	Measures to be taken for natural parks protection near to the Project area during the planning phase of the Project.
Regulation on Aquaculture	22223	10.03.1995	Determination measures to be taken for the construction and operation phases.

Regulations / Communiqués	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Protection of Wildlife and Wildlife Development Area	259637	08.11.2004	Measures to be taken for wildlife protection near to the Project area during the planning phase of the Project.
Chemicals and Other Dangerous Substances			
Regulation on Classification, Labelling, and Package of the Materials and Mixtures	28848	11.12.2013	Taking measures for chemicals and mixtures to be used during construction and operation phases.
Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals	30105	23.06.2017	Determination of chemicals to be used during the operation phase.
Regulation on Persistent Organic Pollutants	30595	14.11.2018	Determination of chemicals to be used during the operation phase.
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	29204	13.12.2014	Procedures and principles regarding materials safety data sheets of hazardous materials, goods and mixtures
Regulation on the Control of Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs)	26739	27.12.2007	Usage of transformers, capacitors. electrical equipment including voltage regulators, switches, oil used in motors, old electrical devices or appliances containing PCB capacitors, fluorescent light ballasts during the operation phase.
Noise			
Regulation on Environmental Noise Control	32029	30.11.2022	Determination of noise emissions and measures to be taken at construction and operation phases.
Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	26392	30.12.2006	Regulating the noise levels caused by noise sources within the Project site at the construction and operation phases.
Regulation on Protection of Buildings Against Noise	30082	31.05.2017	Measures and management of buildings against noise effects
Soil and Land Use			
Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	27605	08.06.2010	Determination of risks of soil contamination at construction and operation phases.
Regulation on Control of Excavated Soil, Construction and Demolition Wastes	25406	18.03.2004	Management of excavated soil and construction and demolition wastes at the source.

Regulations / Communiqués	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Protection, Use, and Planning of Agricultural Lands	30265	09.12.2017	Management of change in the land use during the planning phase of the Project.
Waste			
Regulation on Waste Management	29314	02.04.2015	Management of waste from generation to disposal without harming the environment and human health during construction and operation phases.
Zero Waste Regulation	30829	12.07.2019	General principles regarding the establishment, development, monitoring, financing, recording and certification of the zero waste management system in line with sustainable development goals during construction and operation phases.
Regulation on Packaging Waste Control	31523	26.06.2021	Preventing the formation of packaging waste, reducing the amount of unavoidable packaging waste to be disposed of using reuse, recycling and recovery methods in construction and operation phases.
Regulation on Waste Oil Management	30985	21.12.2019	Waste oils included in the definition of waste oil and the management, recovery, disposal of these wastes, precautions to be taken and notifications to be made
Regulation on Medical Waste Control	29959	25.01.2017	Collection of medical wastes in the places where it is produced, temporary storage, transportation to the medical waste processing facilities and disposal
Circular on COVID-19 Measures in the Management of Personal Hygiene Material Wastes such as Disposable Masks, Gloves (2020/12)	- (Published on MoEUCC website)	07.04.2020	Measures and management of wastes disposable masks, gloves and similar personal hygiene material wastes during the construction and operation phases.
Regulation on Control of Waste Electrical and Electronic Equipment	28300	22.05.2012	Management of electrical and electronic equipment wastes during construction and operation phases.
Regulation on Control of Waste Batteries and Accumulators	25569	31.08.2004	Establishment of a collection system and management for the recovery or final disposal of waste batteries and accumulators.
Regulation on Sanitary Landfilling of Wastes	27533	26.03.2010	Measures and management of sanitary landfilling of wastes
Regulation on the Control of Waste Vegetable Oil	29378	06.01.2015	Measures and management of waste vegetable oil
Regulation on the Control of Excavation Materials, Construction and Demolition Wastes	25406	28.03.2004	Measures and management of excavation materials, construction and demolition wastes
Regulation on Control of End-of-life Tires	26357	25.11.2006	Establishing a collection and management system for ensuring the necessary regulations and standards in the management of end-of-life tires during the construction and operation phases.
Water and Wastewater			
Regulation on Management of Surface Water Quality	28483	30.11.2012	Regulating discharge of treated effluent and monitoring of water quality at receiving body during operation phase.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Regulation on the Monitoring of Surface Waters and Groundwater	28910	11.02.2014	Monitoring of water quality at receiving body during operation phase.
Regulation on Water Pollution Control	25687	31.12.2004	Discharge of treated effluent during operation phase of the Project.
Regulation on the Protection of Groundwater against Pollution and Deterioration	28257	07.04.2012	Protection of groundwater sources against pollution during construction and operation phases.
Regulation on the Control of Pollution Caused by Hazardous Substances in and around Water Environment	26005	26.11.2005	Management of hazardous substances during construction and operation phases.
Regulation on Water Intended for Human Consumption	25730	17.02.2005	Management of drinking water supplied during construction and operation phases.
Regulation on Quality and Treatment of Water Supplied for Drinking Water	30823	06.07.2019	Determination and monitoring of quality of water to be supplied during the operation phase.
Regulation on Wastewater Collection and Remote Systems	29940	06.01.2017	Procedures and principles regarding the planning, design and project design, construction and operation of wastewater collection and removal systems.
Regulation on Control of Water Losses in Drinking Water Supply and Distribution Systems	28994	08.05.2014	Procedures and principles regarding the duties and responsibilities of water administrations for reducing water losses in water supply, storage, transmission, distribution and consumption.
Regulation on the Procedures and Principles to Be Followed in the Determination of Wastewater Infrastructure and Domestic Solid Waste Disposal Plant	27742	27.10.2010	Establishment, maintenance, repair, operation, closure and monitoring of wastewater infrastructure facilities, determination of full cost-based tariffs that can cover all services, adjustment and implementation of wastewater infrastructure management by metropolitan municipalities and municipalities
Structural Safety			
Regulation on Structures to be Built in Natural Disaster Areas	26582	14.07.2007	Management of construction works within the scope of the Project.
Regulation on Building Constructions in Earthquake Zones	26454	06.03.2007	Management of construction works within the scope of the Project.
Regulation on Building Earthquake of Türkiye	30364	18.03.2018	Measures to be taken for the design and construction works under the impact of earthquakes and the evaluation of the performance of existing buildings under the impact of earthquakes.

Regulations / Communiqués	OG Number	OG Date	Relevance/Implication for the Project
Regulation on the Protection of Buildings from Fire	26735	19.12.2007	Measures to be taken for fire protection during construction and operation phases.
Traffic			
Regulation on the Road Transportation of Hazardous Goods	30754	18.06.2022	Hazardous goods to be transported during construction and operation phase.
Regulation on Highway Traffic	23053	18.07.1997	Regulating speed limits of vehicles and machinery used during construction and operation phases.
Regulation on Traffic Signs	18789	19.06.1985	Regulating the traffic signs to be used during the construction and operation phases
Health and Safety and Labor			
Regulation on Emergency Situations in Workplaces	28681	18.06.2013	Preparation of emergency plans, prevention, protection, evacuation, firefighting, first aid and similar studies in workplaces.
Regulation on Health and Safety at Construction Works	28786	05.10.2013	Measures to be taken during construction phase.
Regulation on Health and Safety Conditions Regarding Use of Work Equipment	28628	25.04.2013	Measures to be taken during construction phase related to use of equipment.
Regulation on Health and Safety Precautions Regarding Working with Chemicals	28733	12.08.2013	Measures to be taken during construction and operation phase related to use of chemicals.
Regulation on Health and Safety Regarding Temporary and Time-Limited Works	28744	23.08.2013	Protection of employees with a temporary or fixed-term employment contract at the same level as other employees in the workplace in terms of health and safety.
Regulation on Health and Safety Signs	28762	11.09.2013	Measures to be taken during construction and operation phases.
Regulation on Management of Dust	289812	05.11.2013	Measures to be taken to combat dust in terms of occupational health and safety to prevent the risks that may arise from dust in the workplaces and to ensure that the workers are protected from the effects of dust.
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	29204	13.12.2014	Preparation of safety data sheets to ensure effective control and surveillance against the negative effects of harmful substances and mixtures on human health and the environment during construction and operation phases.
Regulation on Occupational Health and Safety	25311	09.12.2003	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Personal Protective Equipment	30761	01.05.2019	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Protection of Workers from Risks Created by Noise	28721	28.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.

Regulations / Communiqués	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Risk Assessment for Occupational Health and Safety	28512	29.12.2012	Determination of occupational health and safety risks occurring during construction and operation phases.
Regulation on Sub-contractors	27010	27.09.2008	Management of contactors/sub-contractors during construction and operation phases.
Regulation on Use of Personal Protective Equipment in Workplaces	28695	02.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Vocational Training of the Employees Working in Dangerous and Highly Dangerous Workplaces	28706	13.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on the Procedures and Principles of Employee Health and Safety Training	28648	15.05.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Health and Safety Precautions in Working with Asbestos	28539	25.01.2013	Prevention of exposure of employees to asbestos dust in asbestos removal, demolition, repair, maintenance, and removal works and protection from health risks arising from this exposure, determination of special precautions
Communiqué on Training Programs on Asbestos Removal	28692	29.06.2013	Qualifications, training, training programs of asbestos removal specialists
Cultural Heritage			
Law on Protection of Cultural and Natural Assets and all laws which amends this law (in 1987, 2004, 2007, 2009 and 2013)	18113	23.07.1983	During chance finds at the construction phase, determination of measures to be taken.
Regulation on the Classification, Registration and Taking to Museums of Movable Cultural and Natural Assets That Need To Be Protected			

Annex J – Code of Conduct of the Subproject

A minimum requirement for the Code of Conduct has been established taking into account the problems, impacts and mitigation measures identified in the following:

- Project reports e.g. ESIA/ESMP
- Any particular GBV/SEA requirements
- Consent/permit conditions (regulatory authority conditions attached to any permits or approvals for the project)
- Required standards including World Bank Group EHS Guidelines
- Relevant international conventions, standards or treaties, etc., national, legal and/or regulatory requirements and standards (where these represent higher standards than the WBG EHS Guidelines)
- Relevant standards e.g. Workers' Accommodation: Process and Standards (IFC and EBRD)
- Relevant sector standards e.g. workers' accommodation
- Grievance redress mechanisms.

In accordance with the contract, the Contractor is obliged to implement the measures covering the environmental and social risks related to the Construction Works, including sexual exploitation, abuse and harassment.

This Code of Conduct is also included in the solution measures for environmental and social risks related to Construction Works. This set of rules applies to all employees on the Construction Site and other locations where work is carried out. The Code of Conduct is also binding on the personnel of each subcontractor and each employee who assists in the performance of the works. All of the above-mentioned employees will be referred to as "Contractor's Personnel", and compliance with the Code of Conduct will be mandatory for all of them.

This Code of Conduct defines the required behavior expected from all Contractor's Personnel. Dangerous, unpleasant, harassment/abuse or violent behavior will never be allowed in our work environment. Everyone is free to openly share their thoughts and concerns without fear of retaliation.

The behaviors expected from the Contractor's Personnel are as follows:

- Performing their duties with due competence and care,
- Complying with this Code of Conduct and all applicable laws, regulations and other requirements, including protecting the health, safety and well-being of the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including sub-contractors and day workers,
- Ensuring that the machinery, equipment and processes used by each employee in the work area are safe and do not pose a risk to health, using of necessary personal protective equipment, taking necessary precautions in the use of chemical, physical and biological substances, and following appropriate emergency application procedures,
- Reporting workstations that are considered unhealthy and unsafe, and staying away from areas where human life is considered to be at serious danger,
- Respecting other people and not discriminating against certain groups such as women, people with disabilities, migrant workers and children,
- Avoiding Sexual Harassment³⁴
- Avoiding Sexual Abuse³⁵
- Avoiding Sexual Exploitation³⁶

³⁴ Any unwelcome sexual advances, request for sexual favors, and other verbal or physical conduct of a sexual nature.

³⁵ Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.

³⁶ Any actual or attempted abuse of a position of vulnerability, differential power or trust for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another.

- Protecting of children, ensuring their safety in Project Areas and prohibiting sexual activity or abuse, or otherwise unacceptable behavior towards them,
- Participating in relevant trainings on issues such as health and safety, Sexual Exploitation, Abuse and Sexual harassment related to the environmental and social aspects of the Convention,
- Respecting reasonable work instructions and ensuring protection and proper use of property,
- Complying with sanitation requirements,
- Avoiding conflicts of interest such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection,
- Reporting a violation of this Code of Conduct,
- Non-retaliation against personnel who report violations of the Code.

Examples of Sexual Harassment

- One Contractor's Personnel making positive or negative comments about the appearance and sexual attractiveness of another Contractor Personnel.
- A Contractor's or Employer's Personnel contacting physically another Contractor's Personnel.
- A Contractor Personnel telling another Contractor's Personnel that they can get a salary increase or promotion if they send him/her nude photos.

Examples of Sexual Exploitation and Abuse

- A Contractor's Personnel telling a community member that he or she can get a job on the work site in exchange for sexual intercourse (e.g. kitchen and cleaning jobs).
- A Contractor's Personnel rapes or otherwise sexually assaults a member of the community.
- A Contractor's Personnel preventing access to the Site if the sexual desire of a person is not met.
- A Contractor's Personnel telling a person applying for a job under the Contract that they will only be given employment in exchange for sexual intercourse.

Violation of this Code of Conduct by the Contractor's Personnel may have serious consequences and may result in the termination of the contract and the transfer of the matter to the legal authorities.

Annex K Asbestos-containing Pipelines



T.C.
KAYSERİ BÜYÜKŞEHİR BELEDİYESİ SU VE KANALİZASYON
İDARESİ GENEL MÜDÜRLÜĞÜ
İçme Suyu Dairesi Başkanlığı

Sayı : E-94008629-622.01-63939
Konu : Kartal Kavşağı ve Bağlantı Yolları Yapım
Çalışmaları/ Asbest Risk Analizi Hk.

KAYSERİ BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞI
Etüt ve Projeler Daire Başkanlığına

İlgi : Kayseri Büyükşehir Belediyesi 19.02.2025 tarihli ve E-58535219-622-2025-31/4910 sayılı yazısı.

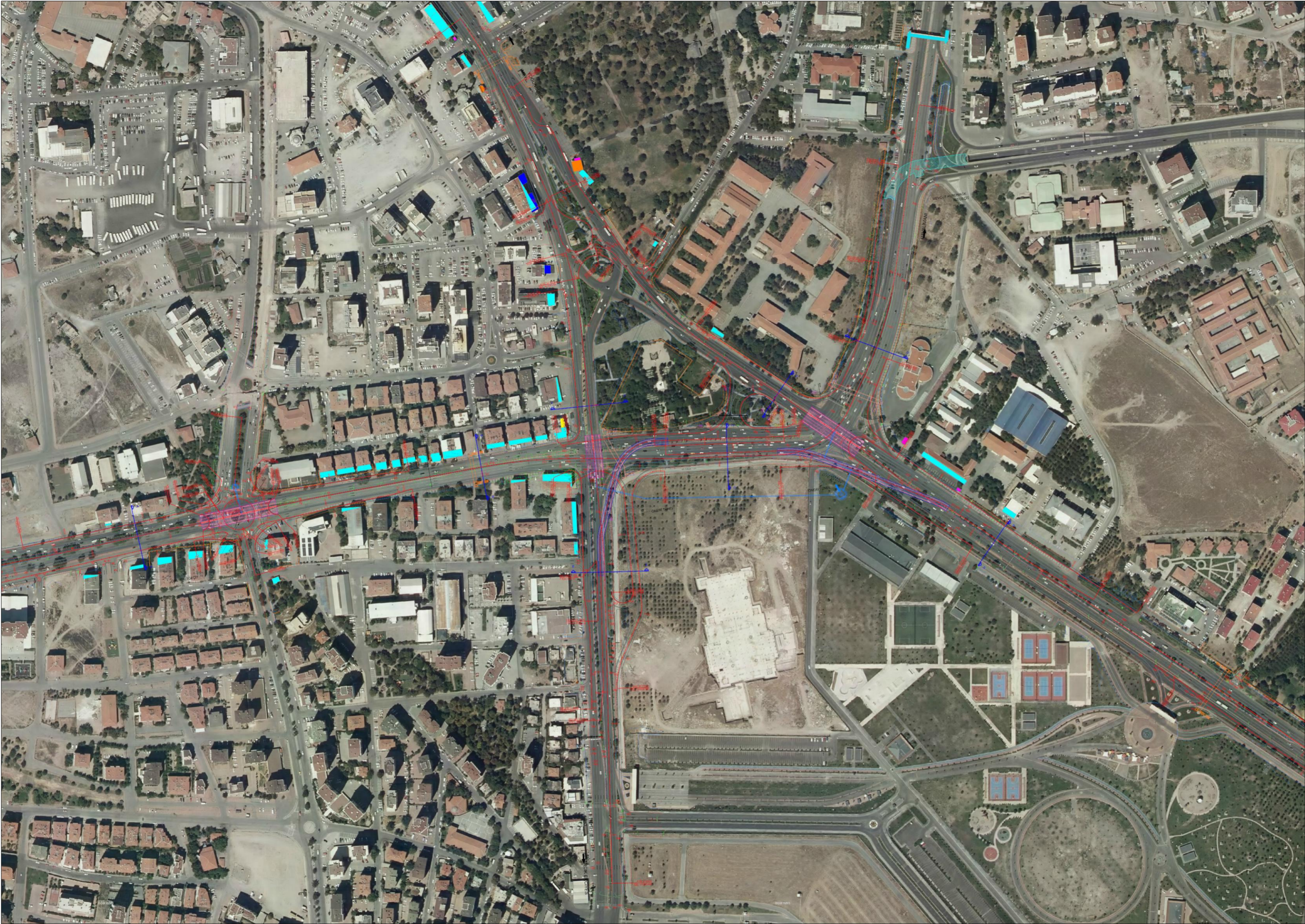
İlgi yazıda bahsedilen Belediyemiz tarafından yürütülmekte olan Kartal Kavşağı ve Bağlantı Yolları Yapım Çalışmaları kapsamında gerçekleştirilecek kazı ve altyapı çalışmaları sırasında, mevcut su ve kanalizasyon hatlarında asbest içerme ihtimali bulunan boru veya diğer malzemelerin var olup olmadığı hususunda kurumunuzdan bilgi talep etmekteyiz.

Bahse konu Kartal Kavşağı ve Bağlantı Yolları Yapım Çalışmaları kapsamında mevcutta bulunan içme suyu asbest hatlarımız ile iptal olan asbest hatlarımız yazınız ekindeki uydu fotoğrafı ve sayısalda belirtilmektedir.

Gereğini bilgilerinize arz ederim.

Fatih Mehmet DURMUŞÇELEBİ
Genel Müdür a.
Genel Müdür Yardımcısı

Annex L Connection Roads Map



Annex M Source of Noise

Source of Noise	No	Source Type	Sound Power Level (dB)				
			Total	500 Hz	1000 Hz	2000 Hz	4000 Hz
Concrete Mixer	1	Moving	103,0	97,0	97,0	97,0	97,0
Concrete Pump	1	Moving	101,5	95,5	95,5	95,5	95,5
Backhoe	1	Moving	103,0	97,0	97,0	97,0	97,0
Excavator	2	Moving	103,6	97,6	97,6	97,6	97,6
Rebar Cutting and Bending Machine	1	Moving	103,6	97,6	97,6	97,6	97,6
Truck	3	Moving	103,5	97,5	97,5	97,5	97,5
Crane	1	Moving	101,5	95,5	95,5	95,5	95,5
Bored Piling Machine	1	Moving	101,5	95,5	95,5	95,5	95,5
Asphalt Scarifying Machine	1	Moving	103,0	97,0	97,0	97,0	97,0
Cylinder	1	Moving	103,6	97,6	97,6	97,6	97,6
Asphalt Paver	1	Moving	103,6	97,6	97,6	97,6	97,6
Mixer Shaft	1	Moving	103,5	97,5	97,5	97,5	97,5

Frequency	Distance	Atmospheric Absorption	Relative Humidity
500	30	0,01	65
500	45	0,01	
500	60	0,02	
500	80	0,02	
500	100	0,03	
500	150	0,04	
500	200	0,06	
1000	30	0,03	
1000	45	0,05	
1000	60	0,07	
1000	80	0,09	
1000	100	0,11	
1000	150	0,17	
1000	200	0,23	
2000	30	0,14	
2000	45	0,20	
2000	60	0,27	
2000	80	0,36	
2000	100	0,46	
2000	150	0,68	
2000	200	0,91	
4000	30	0,55	

4000	45	0,82	
4000	60	1,09	
4000	80	1,46	
4000	100	1,82	
4000	150	2,73	
4000	200	3,64	

Noise Sources	Distance	Final Sound Pressure Level (dB) (dB)			
		500 Hz	1000 Hz	2000 Hz	4000 Hz
Concrete Mixer	30	56,46	56,43	56,33	55,92
	45	52,93	52,89	52,74	52,12
	60	50,43	50,38	50,17	49,35
	80	47,92	47,86	47,58	46,49
	100	45,98	45,89	45,55	44,19
	150	42,44	42,32	41,80	39,75
	200	39,93	39,76	39,08	36,34
Concrete Pump	30	54,96	54,93	54,83	54,42
	45	51,43	51,39	51,24	50,62
	60	48,93	48,88	48,67	47,85
	80	46,42	46,36	46,08	44,99
	100	44,48	44,39	44,05	42,69
	150	40,94	40,82	40,30	38,25
	200	38,43	38,26	37,58	34,84
Water Tanker	30	56,46	56,43	56,33	55,92
	45	52,93	52,89	52,74	52,12
	60	50,43	50,38	50,17	49,35
	80	47,92	47,86	47,58	46,49
	100	45,98	45,89	45,55	44,19
	150	42,44	42,32	41,80	39,75
	200	39,93	39,76	39,08	36,34
Excavator	30	57,06	57,03	56,93	56,52
	45	53,53	53,49	53,34	52,72
	60	51,03	50,98	50,77	49,95
	80	48,52	48,46	48,18	47,09
	100	46,58	46,49	46,15	44,79
	150	43,04	42,92	42,40	40,35
	200	40,53	40,36	39,68	36,94
Rebar Cutting and Bending Machine	30	57,06	57,03	56,93	56,52
	45	53,53	53,49	53,34	52,72
	60	51,03	50,98	50,77	49,95
	80	48,52	48,46	48,18	47,09
	100	46,58	46,49	46,15	44,79
	150	43,04	42,92	42,40	40,35
	200	40,53	40,36	39,68	36,94
Truck	30	56,96	56,93	56,83	56,42
	45	53,43	53,39	53,24	52,62
	60	50,93	50,88	50,67	49,85
	80	48,42	48,36	48,08	46,99
	100	46,48	46,39	46,05	44,69

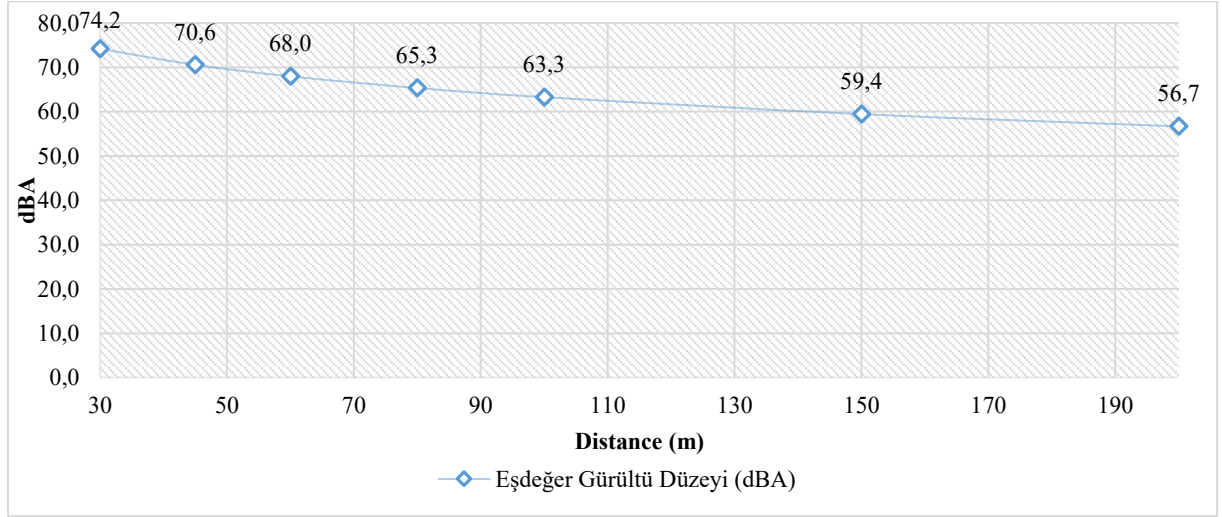
	150	42,94	42,82	42,30	40,25
	200	40,43	40,26	39,58	36,84
Crane	30	54,96	54,93	54,83	54,42
	45	51,43	51,39	51,24	50,62
	60	48,93	48,88	48,67	47,85
	80	46,42	46,36	46,08	44,99
	100	44,48	44,39	44,05	42,69
	150	40,94	40,82	40,30	38,25
	200	38,43	38,26	37,58	34,84
Bored Pile Machine	30	54,96	54,93	54,83	54,42
	45	51,43	51,39	51,24	50,62
	60	48,93	48,88	48,67	47,85
	80	46,42	46,36	46,08	44,99
	100	44,48	44,39	44,05	42,69
	150	40,94	40,82	40,30	38,25
	200	38,43	38,26	37,58	34,84
Asphalt Milling Machine	30	56,46	56,43	56,33	55,92
	45	52,93	52,89	52,74	52,12
	60	50,43	50,38	50,17	49,35
	80	47,92	47,86	47,58	46,49
	100	45,98	45,89	45,55	44,19
	150	42,44	42,32	41,80	39,75
	200	39,93	39,76	39,08	36,34
Mixer Shaft	30	57,06	57,03	56,93	56,52
	45	53,53	53,49	53,34	52,72
	60	51,03	50,98	50,77	49,95
	80	48,52	48,46	48,18	47,09
	100	46,58	46,49	46,15	44,79
	150	43,04	42,92	42,40	40,35
	200	40,53	40,36	39,68	36,94

Noise Sources	Distance	Sound Level (dBA)				Total Sound Level (dBA)
		500 Hz	1000 Hz	2000 Hz	4000 Hz	
Concrete Mixer	30	53,26	56,43	57,53	56,92	62,33
	45	49,73	52,89	53,94	53,12	58,70
	60	47,23	50,38	51,37	50,35	56,10
	80	44,72	47,86	48,78	47,49	53,47
	100	42,78	45,89	46,75	45,19	51,40
	150	39,24	42,32	43,00	40,75	47,58
	200	36,73	39,76	40,28	37,34	44,81
Concrete Pump	30	51,76	54,93	56,03	55,42	60,83
	45	48,23	51,39	52,44	51,62	57,20
	60	45,73	48,88	49,87	48,85	54,60
	80	43,22	46,36	47,28	45,99	51,97
	100	41,28	44,39	45,25	43,69	49,90
	150	37,74	40,82	41,50	39,25	46,08
	200	35,23	38,26	38,78	35,84	43,31
Water Tanker	30	53,26	56,43	57,53	56,92	62,33
	45	49,73	52,89	53,94	53,12	58,70
	60	47,23	50,38	51,37	50,35	56,10
	80	44,72	47,86	48,78	47,49	53,47
	100	42,78	45,89	46,75	45,19	51,40
	150	39,24	42,32	43,00	40,75	47,58
	200	36,73	39,76	40,28	37,34	44,81

Excavator	30	53,86	57,03	58,13	57,52	62,93
	45	50,33	53,49	54,54	53,72	59,30
	60	47,83	50,98	51,97	50,95	56,70
	80	45,32	48,46	49,38	48,09	54,07
	100	43,38	46,49	47,35	45,79	52,00
	150	39,84	42,92	43,60	41,35	48,18
	200	37,33	40,36	40,88	37,94	45,41
Rebar Cutting and Bending Machine	30	53,86	57,03	58,13	57,52	62,93
	45	50,33	53,49	54,54	53,72	59,30
	60	47,83	50,98	51,97	50,95	56,70
	80	45,32	48,46	49,38	48,09	54,07
	100	43,38	46,49	47,35	45,79	52,00
	150	39,84	42,92	43,60	41,35	48,18
	200	37,33	40,36	40,88	37,94	45,41
Truck	30	53,76	56,93	58,03	57,42	62,83
	45	50,23	53,39	54,44	53,62	59,20
	60	47,73	50,88	51,87	50,85	56,60
	80	45,22	48,36	49,28	47,99	53,97
	100	43,28	46,39	47,25	45,69	51,90
	150	39,74	42,82	43,50	41,25	48,08
	200	37,23	40,26	40,78	37,84	45,31
Crane	30	51,76	54,93	56,03	55,42	60,83
	45	48,23	51,39	52,44	51,62	57,20
	60	45,73	48,88	49,87	48,85	54,60
	80	43,22	46,36	47,28	45,99	51,97
	100	41,28	44,39	45,25	43,69	49,90
	150	37,74	40,82	41,50	39,25	46,08
	200	35,23	38,26	38,78	35,84	43,31
Bored Pile Machine	30	51,76	54,93	56,03	55,42	60,83
	45	48,23	51,39	52,44	51,62	57,20
	60	45,73	48,88	49,87	48,85	54,60
	80	43,22	46,36	47,28	45,99	51,97
	100	41,28	44,39	45,25	43,69	49,90
	150	37,74	40,82	41,50	39,25	46,08
	200	35,23	38,26	38,78	35,84	43,31
Asphalt Milling Machine	30	53,26	56,43	57,53	56,92	62,33
	45	49,73	52,89	53,94	53,12	58,70
	60	47,23	50,38	51,37	50,35	56,10
	80	44,72	47,86	48,78	47,49	53,47
	100	42,78	45,89	46,75	45,19	51,40
	150	39,24	42,32	43,00	40,75	47,58
	200	36,73	39,76	40,28	37,34	44,81
Mixer Shaft	30	53,86	57,03	58,13	57,52	62,93
	45	50,33	53,49	54,54	53,72	59,30
	60	47,83	50,98	51,97	50,95	56,70
	80	45,32	48,46	49,38	48,09	54,07
	100	43,38	46,49	47,35	45,79	52,00
	150	39,84	42,92	43,60	41,35	48,18
	200	37,33	40,36	40,88	37,94	45,41

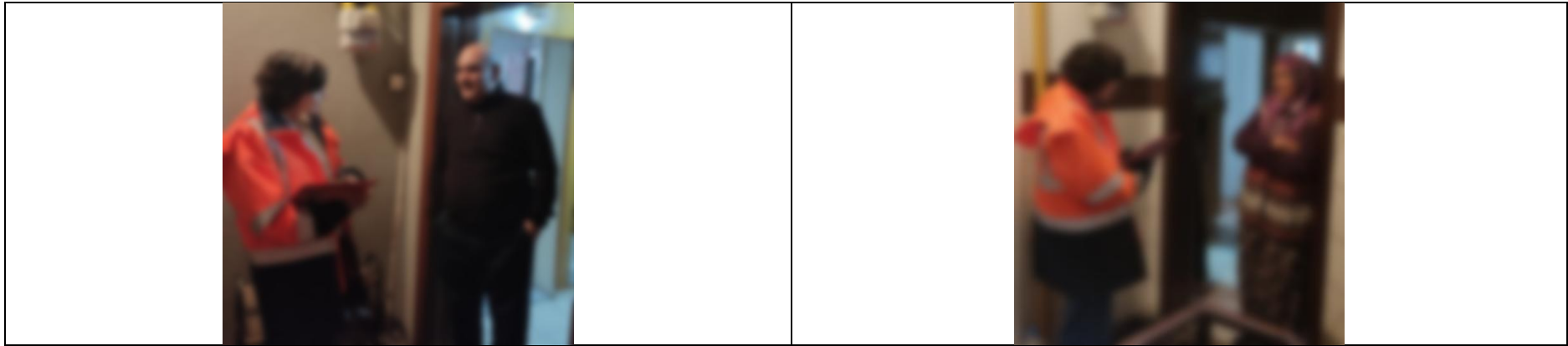
Distance	Equivalent Noise Level (dBA)
30	74,2
45	70,6
60	68,0

80	65,3
100	63,3
150	59,4
200	56,7

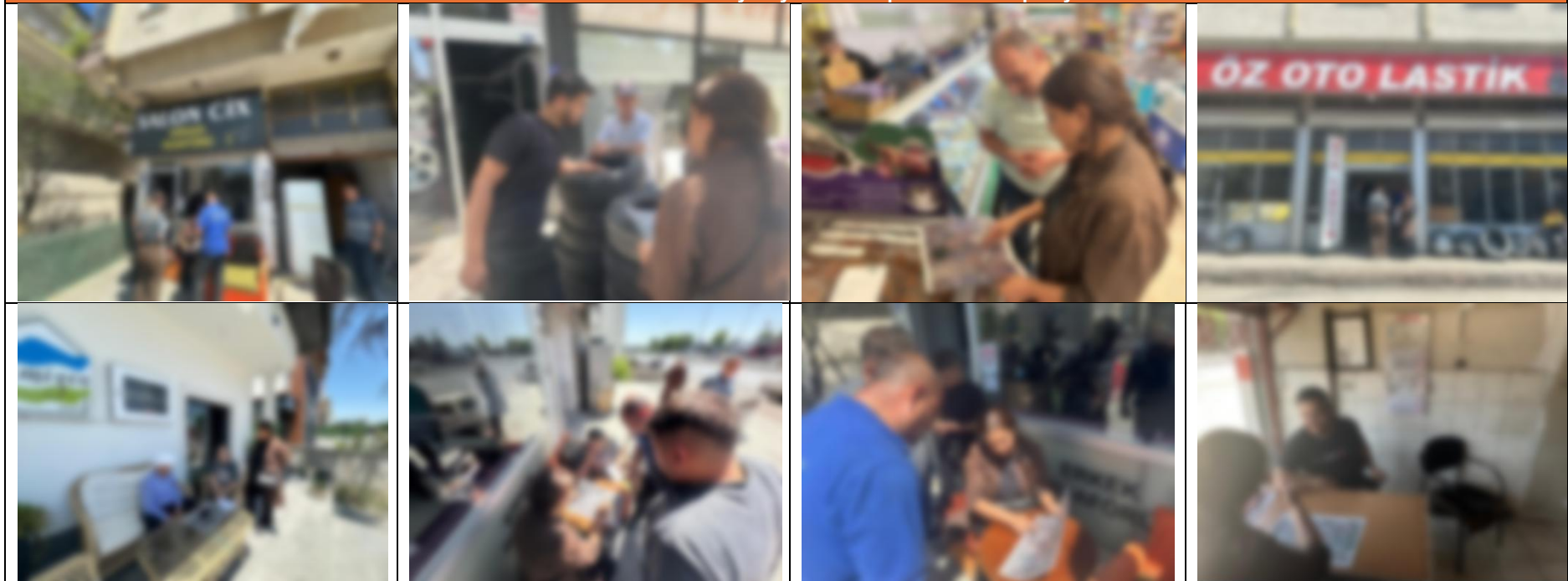


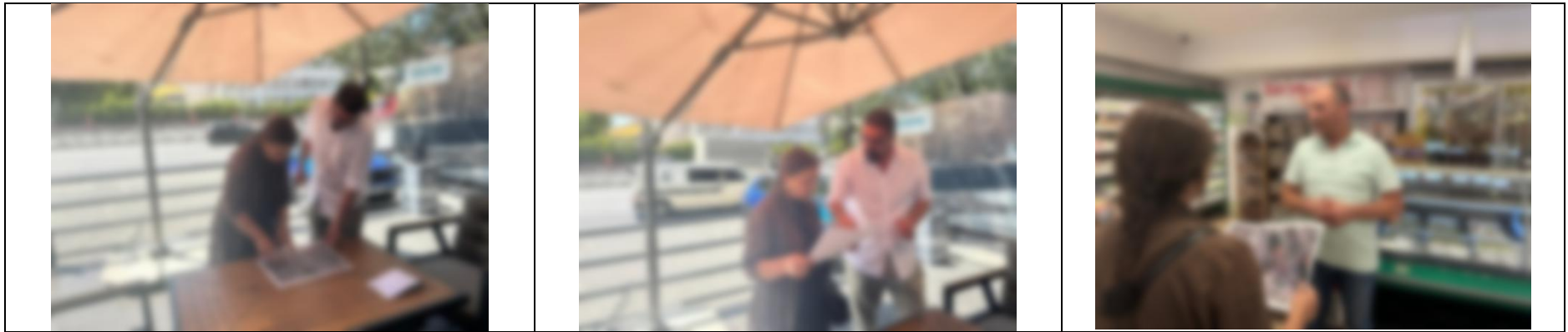
Annex N Consultation Photos





Photos of Consultation by Kayseri Metropolitan Municipality





Annex O Press Conference and City Council Newspaper News

TOBB 81. Mali Genel Kurulu, Ankara'da yapıldı

İncesu'da 2.'si düzenlenen festivale yüz binler katıldı

Kayseri'de düzenlenen TOBB 81. Mali Genel Kurulu, Ankara'da yapıldı. Kayseri'de düzenlenen festivalin 2. günü de büyük ilgi gördü. Festivalin 2. günü de büyük ilgi gördü. Festivalin 2. günü de büyük ilgi gördü.

GAZETE KAYSERİ

Vekil Ersoy: Herkes rahat olsun

GAZETE KAYSERİ

PROJE, KAYNAK HAZIR

Kayseri'de önemli son etapeye giren Kartal Katlı Kavşağı Projesi, 2026 yılında hayata geçecek. Başkan Büyükkılıç, proje ve kaynak konusundaki çalışmalarını ifade etti.

KARTAL KATLI KAVŞAĞI

Kayseri'de önemli son etapeye giren Kartal Katlı Kavşağı Projesi, 2026 yılında hayata geçecek. Başkan Büyükkılıç, proje ve kaynak konusundaki çalışmalarını ifade etti.

BAHÇELİEVLER'DE YAZ, ÇOCUKLAR İÇİN ŞENLİKLİ BAŞLADI

PROFESYONEL NUSİBAN HİZMETİ

Bahçelievler'de yaz, çocuklar için şenlikli başladı. Profesyonel Nusiban Hizmeti, çocukların yaz aylarını keyifli geçirebilmeleri için düzenledi.

Kayseri Gazetesi

Kartal Katlı Kavşağı Projesi

Kayseri Gazetesi, Kartal Katlı Kavşağı Projesi hakkında detaylı haberler yayınladı. Proje, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır.

KARTAL KAVŞAĞI BAŞLIYOR!

Kartal Kavşağı, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır. Proje, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır.

BU ÜRÜNLERDE İADE HAKKI YENİDEN KAZANILDI

PROJE HAZIR, KAYNAK HAZIR

Bu ürünlerde iade hakkı yeniden kazanıldı. Proje hazır, kaynak hazır. Proje, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır.

KAYSERİ SUN HABER

PROJE HAZIR, KAYNAK HAZIR

Kayseri Sun Haber, Kartal Katlı Kavşağı Projesi hakkında detaylı haberler yayınladı. Proje, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır.

Kayseri'de 'Alemlere Rahmet' Coşkusu: Nasene Vakfı'ndan Muhteşem Program

Mavi Marmara Şehidi Furkan Doğan'ın 15. Yılı

Kayseri'de 'Alemlere Rahmet' Coşkusu: Nasene Vakfı'ndan Muhteşem Program. Mavi Marmara Şehidi Furkan Doğan'ın 15. Yılı.

Kayseri Gündem

Kayseri'nin Ulaşım Vizyonu: Kartal Kavşağı için Proje Hazır, Kaynak Hazır

Kayseri Gündem, Kartal Katlı Kavşağı Projesi hakkında detaylı haberler yayınladı. Proje, şehrin ulaşımını iyileştirecek ve trafik sıkışıklığını azaltacaktır.

Türkiye Makine Mühendisleri Odası (TMMOB) Kayseri Şube Başkanı Süleyman Varol, Yürütme Kurulu Üyeleri ile birlikte KayseriGün Gazetesini ziyaret etti.

MAKİNE MÜHENDİSLERİNDEN GAZETEMİZE ZİYARET!

KAYSERİGÜN GAZETESİ

BAKAN ŞİMŞEK İŞİN MUTFAĞINDA

KARTAL KAVSAĞI PROJESİ TANITILDI

Böyle Pazara KURBAN olunur

İNCESE, FESTİVALDE YÜZ BİNLERİ AĞIRLADI

YERLİKAYA DUYURDU!

TALASTA YAZ SEVİMLİLİĞİ BAŞLADI...

YATIRIMCI VE İŞADAMLARIN TİCARET ODASI TOBB GENEL KURULUNDA

Mahsur kalan araçlar kurtarıldı

KAYSERİSPOR 45 PİYANLA BİTİRDİ

Gazeteciler tehdit edildi

KAYSERİ ANADOLU HABER

KARTAL KAVSAĞI'NDA İLK ADIM ATILDI

ULAŞIM YATIRIMLARI TANITILDI

"PROJE HAZIR, KAYNAK HAZIR"

Kocasinan Belediyesi Kurban Bayramı'na hazır

GENÇ NÜFUS KAYSERİ'Yİ TERK EDİYOR!

ERÜ'DEN ÖNEMLİ BAŞARI

TOBB'DA KAYSERİ RÜZGARI ESTİ

MUTFAK SANATLARI MERKEZİNİ GEZDİ

O BÖLGELER TÜRK COĞRAFYASIDIR, HERKES MADDENİ BİLMEK...

KAPUZBASI YOLUNDA ARAÇLAR MAHSUR KALDI

KAYSERİ GERÇEK HABER

ERÜ 14. SIRADA YER ALDI

BÜLBÜLPINARI KESİM ÜNİTELERİ BAYRAMA HAZIR

KARTAL KAVSAĞI İÇİN DÜĞMEYE BASILDI

1000 KİLO KAVSAGI, 11 TANE KÜPÜSE MİTATTA GEÇİRDİ

PROJE HAZIR, KAYNAK HAZIR, 5 AYDA TAMAMLANACAK

COD ENERJİ ÜRETİM A-ŞİDEN GÜNEŞ ENERJİSİ

CHP MELİNGAZ'DEN İLDEM'DE HALK BULUŞMASI

BU PROJENİN ZARARLI DEĞERİ VE MİHALAR RİSK ALTINDA

SANTİVEDE SEĞİT DÜĞME

MESLEKİ ONURA YÖNELİK SAĞIRILARA RESMİ KALINPORTEZ

Annex P – HS Check List

<h3 style="margin: 0;">İŞ GÜVENLİĞİ KONTROL LİSTESİ (HS CHECK LIST)</h3>			Type of Document	
			Check List	
			Form ID	
			Date	
			Reference Document	
			<i>(Name of the previous file goes here)</i>	
			Version	01
Edition	01			
Yüklenici/Contractor	Tarih/Date	Yapılacak iş /Work detail	Çalışma Alanı / Work Field	
Konu/Subject		Var(Y)	Yok(N)	Açıklama/Description
Çalışanların nüfus kağıtları fotokopileri var mı? / Are there copies of the employee ID card?				
Çalışanların görev kağıtları var mı? / Do the employees have duty papers?				
Çalışanların mesleki yeterlilik belgeleri var mı? / Do employees have professional qualification documents?				
Çalışanların işyeri hekim tarafından verilmiş periyodik muayene raporu var mı? / Do employees have a periodic inspection report issued by the workplace doctor?				
Çalışanların temel İSG eğitim sertifikaları var mı? / Do employees have basic OHS training certificates?				
Çalışılacak bölgeye ait riskler ekip ile paylaşıldı mı? Kayıt edildi mi? / Were the risks of the region to be studied shared with the team? Is it registered?				
Ekip İSG sorumlusu personelin adı? / Name of the staff responsible for the team OHS?				
Çalışma izni formu doldurulmuş mu? / Is the work permit form filled?				
Çalışılacak bölgede gerilim var mı? Var ise özel önlem neler alındı? / Is there any conflict in the area to be worked? If yes, what were the special measures taken?				
Toolbox yapıldı mı? / Is toolbox done?				
Gözlemci olarak tayin edilen personelin Adı-Soyadı-Görevi? / Name-Surname-Position of the personnel appointed as Observers?				

Annex Q – Incident Form

The purpose of this form is to define the reason for investigating an incident or near misses.

INCIDENT FORM		
Details of the incident/near miss:	Date of incident:	Time of incident:
Short description of the incident / near miss:		
<i>Please describe in detail the causes of the incident to identify any risks and hazards.</i>		
Area where incident / near miss occurred:		

Details of the incident/near miss investigation:	
Name of injured person (if relevant):	Injury sustained (if relevant):
Name of the person who reported the incident:	Date of report:
Name of person completing this form:	
Telephone number:	Date report completed:

Witness details:	
Name's/Job title (if relevant):	Contact number:
Name of person/s conducting the investigation Job title (if relevant):	Contact number:

Immediate causes / Contributing Causes that may have been a factor to the accident/incident	
What preventative action could have been taken? Why was this action not taken?	
How much experience did the employee have in the task/s that was being performed when the accident/incident occurred? What training has been provided?	
What is the chance of the accident/incident occurring again?	

Full description of events.**Who was involved: Worker/Student/ Visitor/ Contractor?**

Briefly describe what happened including the sequence of events, investigate the scene of the incident or near miss; conditions present at the time of incident; what was involved, what activity (if any) was taking place prior and at time of the incident. What hazards was the worker exposed to? What hazards may have contributed to the incident occurring? (Attach photos if available)

INVESTIGATION RECOMMENDATIONS

Outline recommended corrective action/s (i.e. solution/s) to prevent the recurrence of the incident eg. new equipment, re-engineer, re-design work area, re-design work practices, review training standards, etc

Investigators Recommendation	Person to Action	Completion date

IMPLEMENTATION DETAILS

Date implemented	Action taken	Responsible person	Review Date

Investigators Name:

Date:

Attachments: e.g. photos, instructions, etc.