PROJECT IMPLEMENTATION UNIT (PIU), KWSSIP
KARACHI WATER & SEWERAGE corporation
(KW&SC)

KWSSIP | Karachi Water and Sewerage Services Improvement Project

Environmental & Social Screening Report

KARACHI WATER & SEWERAGE SERVICES IMPROVEMENT PROJECT (KWSSIP)

CUSTOMERS SERVICES CENTRES FOR KARACHI WATER AND SEWERAGE CORPORATION

January 2024

CONSTRUCTION OF CUSTOMER SERVICE CENTRES FOR KARACHI WATER AND SEWERAGE CORPORATION

ENVIRONMENTAL AND SOCIAL SCREENING REPORT

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LIST OF ABBREVIATONS / ACRONYMS

AED	Anti-Encroachment Drive
AIDS	Acquired Immune Deficiency Syndrome
ARAP	Abbreviated Resettlement Action Plan
CC	Construction Contractor
CCR	Community Complaints Register
CERRI	Center of Excellence Reform Research & Innovation
CHS	Community Health & Safety
CSCs	Customer Service Centers
DC	Design Consultant
E&S	Environment and Social
ESC	Environmental & Social Cell
ESMP	Environmental and Social Mitigation Plan
GBV	Gender-Based Violence
GFP	Grievance Focal Point
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HIV	Human Immunodeficiency Viruses
KDA	Karachi Development Authority
KW&SC	Karachi Water & Sewerage Corporation
KWSSIP	Karachi Water and Sewerage Services Improvement Project
M&E	Monitoring & Evaluation
NOC	No Objection Certificate
OHS	Occupational Health & Safety
PAD	Project Appraisal Document
PAPs	Project Affected Persons
PIU	Project Implementation Unit
PM	Project Manager
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
SC	Supervision Consultant
SDS	Social Development Specialist
SEA/SH	Sexual Exploitation and Abuse/ Sexual Harassment
SEPA	Sindh Environmental Protection Agency
SEQs	Sindh Environmental Quality Standards
SOPs	Standard Operational Procedures
SSCF	Social Screening & Categorization Form
STP	Sewage Treatment Plant
TPV	Third Party Validation

1. INTRODUCTION

1.1 Overview

The Karachi Water & Sewerage Corporation (KW&SC) is a service-based consumer-oriented organization responsible for production, transmission and distribution of potable water to the citizens of Karachi, managing sewerage system within the city to ensure hygienic environment, development of schemes to cover shortfalls in services and collection of revenues for sustained economic viability. KW&SC, since its inception, has grappled with conventional management systems and lacks a contemporary infrastructure.

In addition to improvement in water, sanitation and metering systems under Karachi Water and Sewerage Services Improvement Project (KWSSIP), the KW&SC seeks matching improvements in customer service by creating new Customer Service Centers (CSCs). The CSCs will be staffed by the members of Complaints Cell, as well as revenue and operational departments who will be trained in customer engagement.

1.2 Objectives

The following are the objectives of proposed building design:

- To ensure efficient customer engagement by providing one window facilitation to KW&SC's customers;
- To implement modern communication strategy[1] of KW&SC;
- To incorporate user requirements including complain registration and resolution at all steps.

1.2.1 Purpose of the Document

The current report presents findings of environmental and social screening for the proposed customer service centers (CSCs) at various locations of Karachi to facilitate the customers and turn KW&SC into a consumer-oriented organization. In addition to the above-mentioned sites, a building named Centre of Excellence Research Reform and Innovation (CERRI) is also being constructed by the KW&SC which will serve as the headquarter for CSCs and serve Malir, Korangi and Central districts. The rest of three CSC will cover the remaining districts. **Table 1.1** summarizes the districts covered by each of the proposed CSC.

1.2.2 Project Location

Three CSCs will be built at the following locations in the city to facilitate the customers:

- Sewage Treatment Plant-I (STP-I) at Haroonabad (District West)
- Sakhi Hassan Pump House, Gulberg Town (District Central)

[1] To provide a platform for improved and enhanced communications aligned with KW&SC's reform agenda

- LSR adjacent to DC East Office, Gulshan-e-Iqbal (District East)
- CERRI Building at 9th Mile Karsaz Shahrah e Faisal (separate ESMP prepared)

TP 1 and LSR sites serve as shared locations for Parking Sheds and CSCs. However, it's crucial to acknowledge that these are distinct sub-projects, each requiring its own contractor. As a result, each contractor will be responsible for drafting their Bill of Quantities (BOQ) based on the Environmental and Social Safeguard (ESS) costs specific to their project. This arrangement may lead to variances in mobilization timelines among contractors. Each contractor will also have their own dedicated ESS Team to manage the ESS aspects on all sites.

Additionally, it's worth noting that these sub-projects, namely Parking Sheds and CSCs, fall under Category C, indicating minimal environmental impact. This designation holds true even if multiple projects are conducted on the same site, primarily because all sites are situated within KWSC's existing facilities, thereby keeping cumulative impacts limited.

Table 1.1: Districts served by CSCs

Sr. No.	Proposed CSC Site	Districts Served
1	CERRI (Headquarter)	Malir, Korangi and Central (partially)
2	STP-I	West and Keamari
3	Sakhi Hassan	Central and North
4	LSR	East and South

All the proposed sites are owned by the KW&SB and no land acquisition is involved. The location maps of the proposed sites are shown in **Figure 1.1, 1.2 and 1.3**.

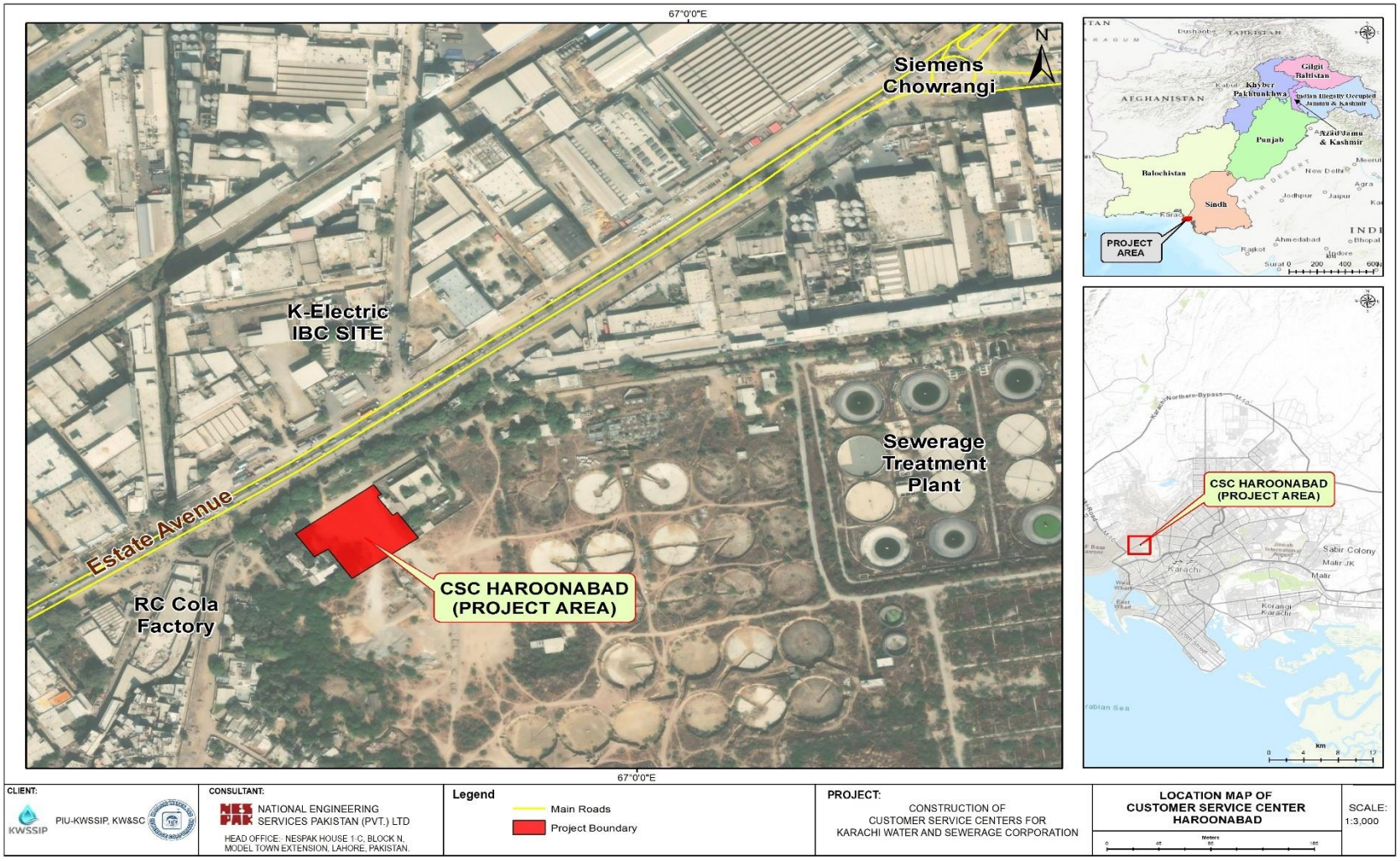


Figure 1.1: Location Map of CSC at STP-I, Haroonabad

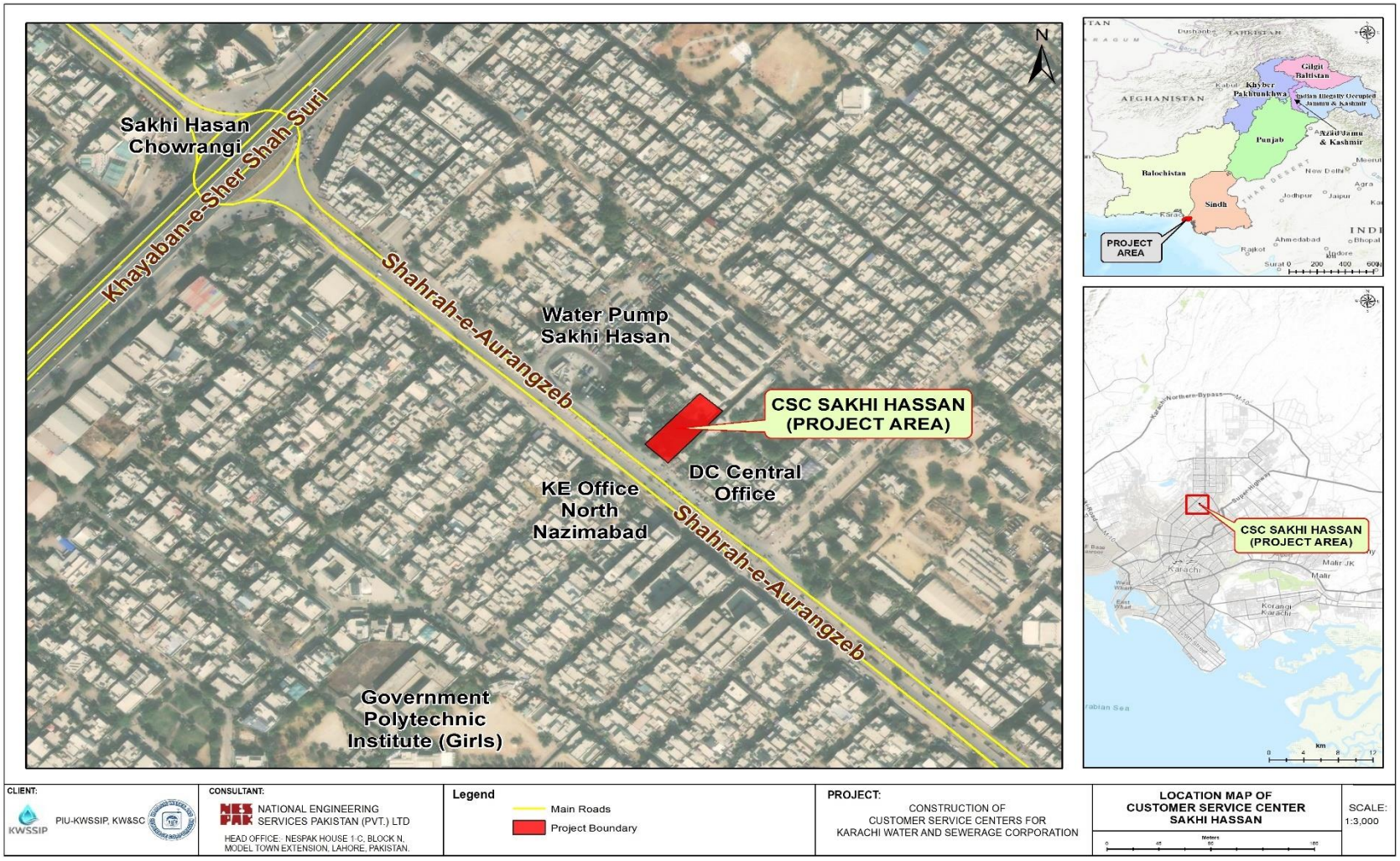


Figure 1.2: Location Map of CSC at Sakhi Hassan Pump House, Gulberg

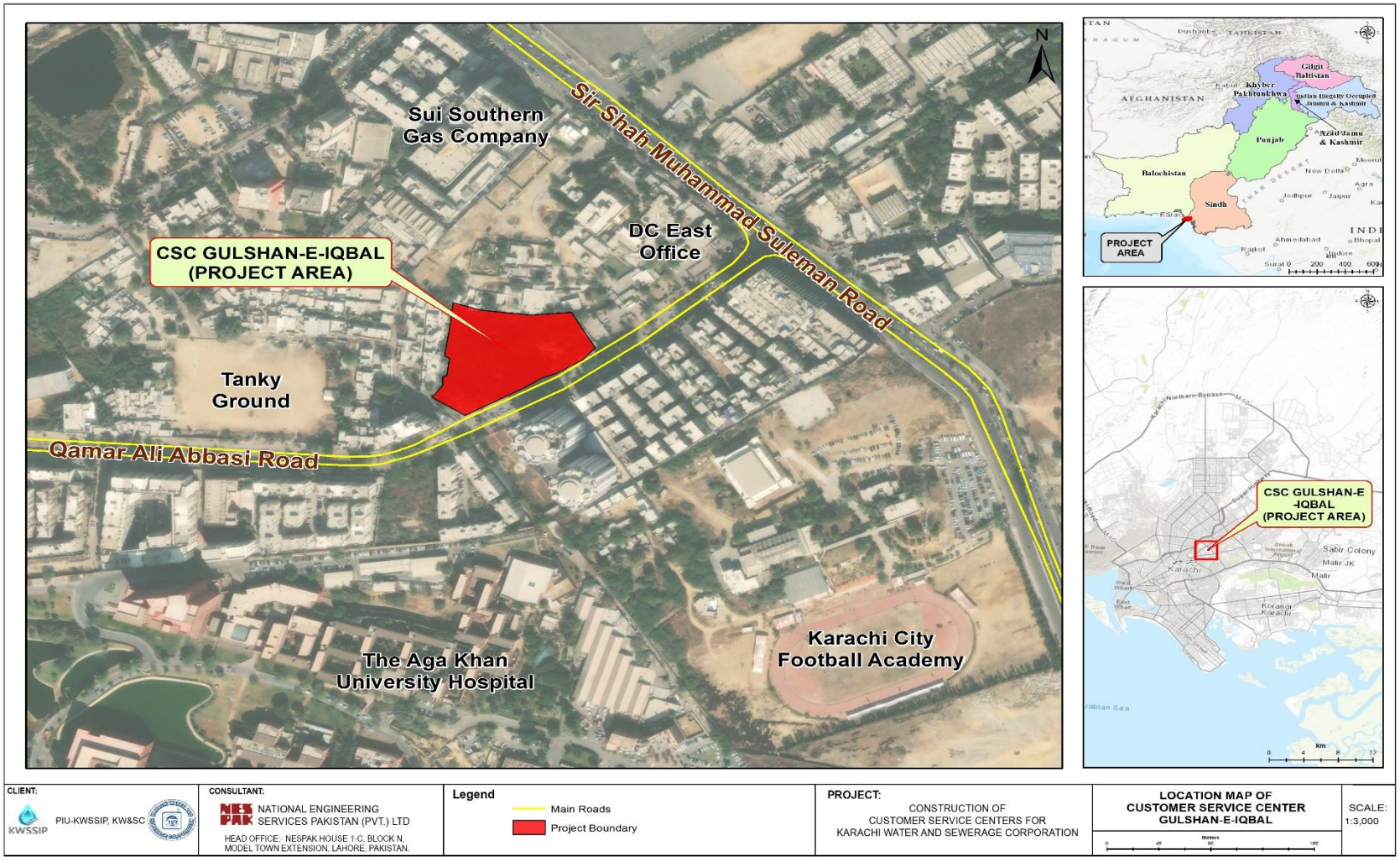


Figure 1.3: Location Map of CSC at LSR, Gulshan e Iqbal

2. DESCRIPTION OF PROJECT

2.1 General

The project involves construction of a state-of-the-art CSCs at various locations. The proposed buildings will enable the implementation of modern communication strategy of KW&SC with its customers.

Covered Area

The ground covered area of the proposed buildings is summarized hereunder;

Sr. No	Location	Covered Area (Square feet)
1	Sewage Treatment Plant-I (STP-I), Haroonabad	3,114
2	Sakhi Hassan Pump House, Gulberg Town	3,114
3	LSR adjacent to DC East Office, Gulshan-e-Iqbal	3,114

Existing Site Conditions

i. CSC at Sewage Treatment Plant-I (STP-I), Haroonabad

The proposed land for the CSC within the premises of STP-I is open land with no current usage. The land is adjacent to STP-I office building. The total land available at STP-I site is 5,742,428 square feet, out of which 3,114 square is required for the proposed interventions. Currently, TP-I is non-operational and is undergoing an upgradation . However, the TP-I is not a customer-based facility and none of visitors are expected there. The operation of CSC at the site will not have any social impacts, especially the accessibility issue, as there are multiple entry points for TP-1 site. The existing site conditions are presented in **Plate 2.1** below.

The CSC has been proposed near the entrance gate of the TP-I. The treatment units and allied facilities are at an adequate distance from the proposed CSC. The operation of TP-I is not envisaged to pose and health issues to the visitors.

Furthermore, a Parking Shed for various KW&SC's equipment has also been proposed adjacent to the CSC site. The footprint of construction of the proposed parking sheds is very limited. The cumulative impact of the both the activities will be insignificant, as there is ample space available for the separate stockpiling of the equipment, movement of machinery and establishment of separate camp facilities.

Plate 2.1: Existing Site Conditions, CSC at STP-I, Haroonabad

ii. CSC at Sakhi Hassan Pump House, Gulberg Town

The proposed site is along the existing water hydrant at Sakhi Hassan Pump House. The total land available at Sakhi Hassan site is 22,500 square feet, out of which 3,114 square is required for the proposed interventions. There are existing offices of KW&SC's revenue department. The existing offices will need to be dismantled. The existing site conditions are given in **Plate 2.2** below.

The residential area visible in the pictures is in the rear of the proposed site with an adequate horizontal distance and separate approach road. Furthermore, the proposed interventions and dismantling operations will be done on the opposite end of the available facility i.e., along the main road. Hence the activities are not expected to affect the community.

Plate 2.2: Existing Site Conditions, Sakhi Hassan Pump House, Gulberg Town

iii. CSC at LSR, Gulshan-e-Iqbal

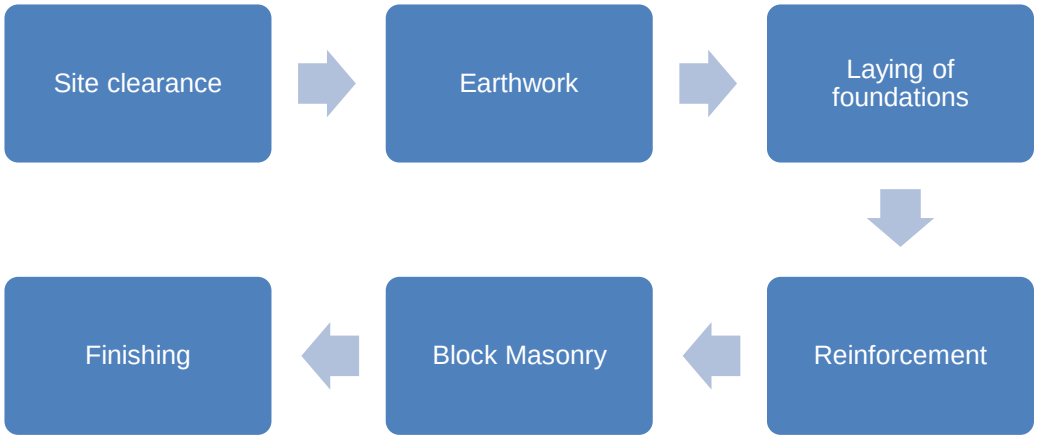
The proposed site at LSR, Gulshan e Iqbal is owned by KW&SC. The total land available at LSR site is 101,383 square feet, out of which 3,114 square is required for the proposed interventions. A parking shed has also been proposed at this site, but the space is adequate to house both the CSC as well as Parking Sheds.

Currently, the site is not in any use but there is a thick plantation of trees at the proposed location. The existing site conditions are given in **Plate 2.3** below. The details of trees are given in the proceeding section.

Plate 2.3: Existing Site Conditions, LSR Gulshan e Iqbal

2.1.1 Proposed Interventions

The proposed CSCs are single story structures that share a common structural design. The project activities will have a very limited footprint. There are no activities that involve working at height and no deep excavations are involved i.e. maximum depth of excavation is 5 feet. The construction activities include the following:



The above activities are common at all the sites, except CSC-2 (Sakhi Hassan Pump House, Gulberg Town), where additional activities of dismantling will be performed, which involves demolition of a couple of small rooms. The quantities of various items involved in the project are given in the **Table 2.1** below:

Table 2. 1: Activities Involved in Construction of CSCs

Sr. No	Items	CSC-1 (Sewage Treatment Plant-I (STP-I), Haroonabad)	CSC-2 (Sakhi Hassan Pump House, Gulberg Town)	CSC-3 (LSR adjacent to DC East Office, Gulshan-e-Iqbal)	Remarks
1	Covered Area (Sft)	3,114	3,114	3,114	The proposed structure has a total covered area of 3,114 square feet.
2	No. Of Floors	1	1	1	The proposed building is a single-story building.
3	Dismantling (Sft)	Nil	2,404	Nil	At CSC-2, there are existing two single story rooms that are needed to be dismantled.
4	Earthwork (Cft)	11,572	21,398	21,398	Earthwork operations (excavation and backfill)
5	Reinforcement (Tonnes)	41	15	15	This quantity of reinforcement is involved.
6	Plain and Reinforced Concrete (Cft)	9,397	9,532	9,532	Concrete work is included.
7	Block Masonry (Cft)	2,181	2,181	2,181	Block masonry of this quantity is involved in the construction.
8	Structural Steel Works (Rft)	90	90	90	Stair railing and ramp railing incorporates structural steel works
9	Carpentry & Joinery (Sft)	214	214	214	Carpentry and joinery work is involved in the fixing the doors.
10	Aluminum Works (Sft)	1019	1019	1019	The fixing of doors, windows, and ventilators involves aluminum works.
11	uPVC DOORS (Sft)	98	98	98	uPVC doors are also provided.
12	Water Proofing and Built-Up Roofing (Sft)	10200	9082	9082	Waterproofing treatment including bitumen coating is applied on roof top.

Sr. No	Items	CSC-1 (Sewage Treatment Plant-I (STP-I), Haroonabad)	CSC-2 (Sakhi Hassan Pump House, Gulberg Town)	CSC-3 (LSR adjacent to DC East Office, Gulshan-e-Iqbal)	Remarks
13	Cement Plaster (Sft)	11668	11668	11668	Cement plaster is applied to the building's interior and exterior surfaces for a smooth finish.
14	False Ceiling (Sft)	2820	2820	2820	Gypsum boards are installed as false ceilings.
15	Floor And Wall Finishes (Sft)	11431	11431	11431	The floor finishing includes laying porcelain tiles with an approved color and texture on a cement concrete base.
16	Painting (Sft)	11273	11273	11273	Three coats of weather-resistant paint are applied to the specified surface.

KEY

CSC-1 Sewage Treatment Plant-I (STP-I), Haroonabad
CSC-2 Sakhi Hassan Pump House, Gulberg Town
CSC-3 LSR adjacent to DC East Office, Gulshan-e-Iqbal

2.1.2 Project Timelines

The project is expected to be completed with 12 months.

2.1.3 Proposed Elevations and Plans

The proposed buildings share a common elevation and a typical design. The site plans are shown in **Figure 2.1** to **Figure 2.3 and** the proposed elevations and floor plans of all the CSCs are shown in **Figure 2.4** to **Figure 2.6**.

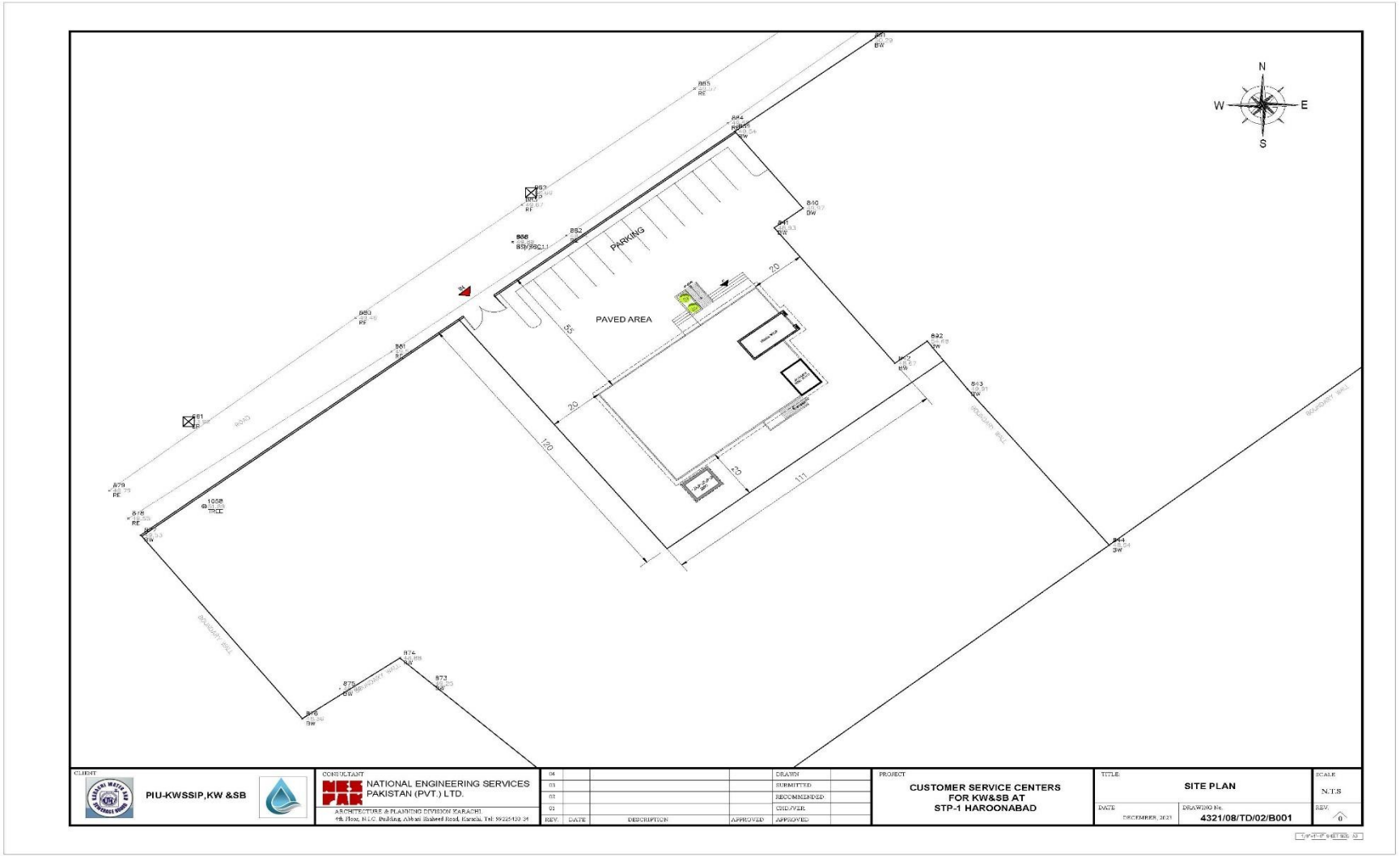


Figure 2.1: Site Plan of CSC, STP-I

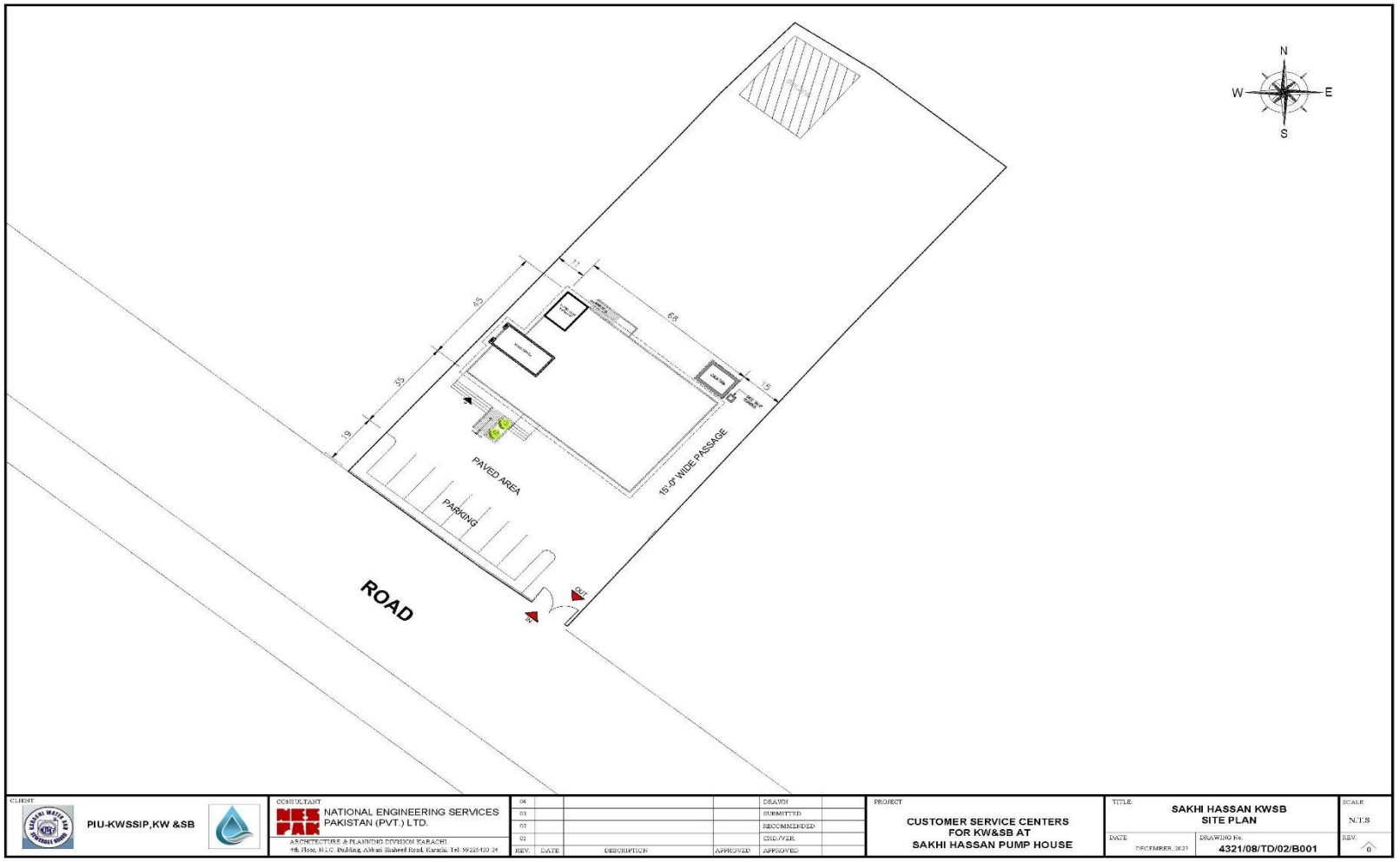


Figure 2.2: Site Plan for CSC, Sakhi Hassan

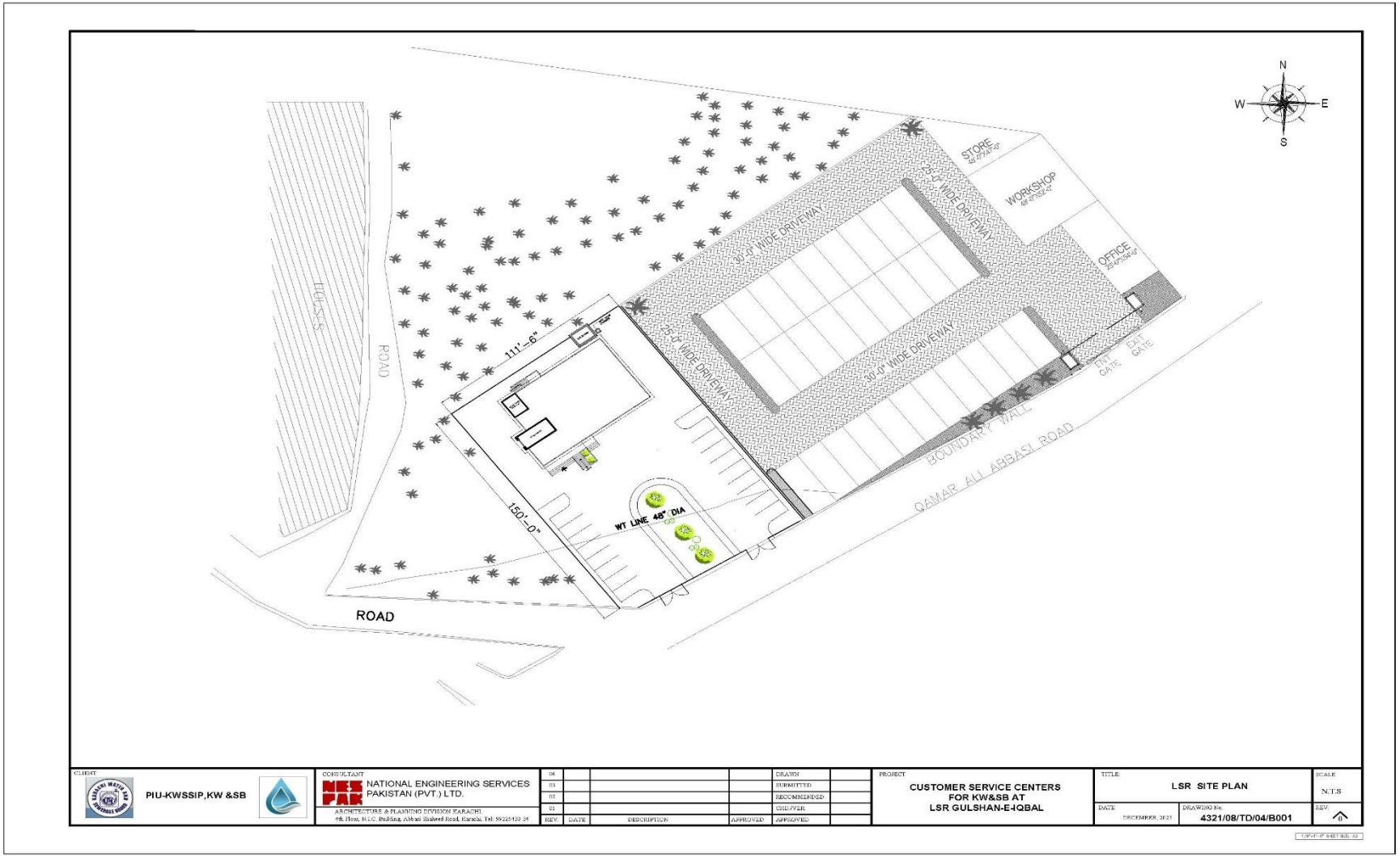


Figure 2.3: Site Plan for CSC, LSR

Elevation **3D – View**

Figure 2.4: 3D Views of Proposed CSCs

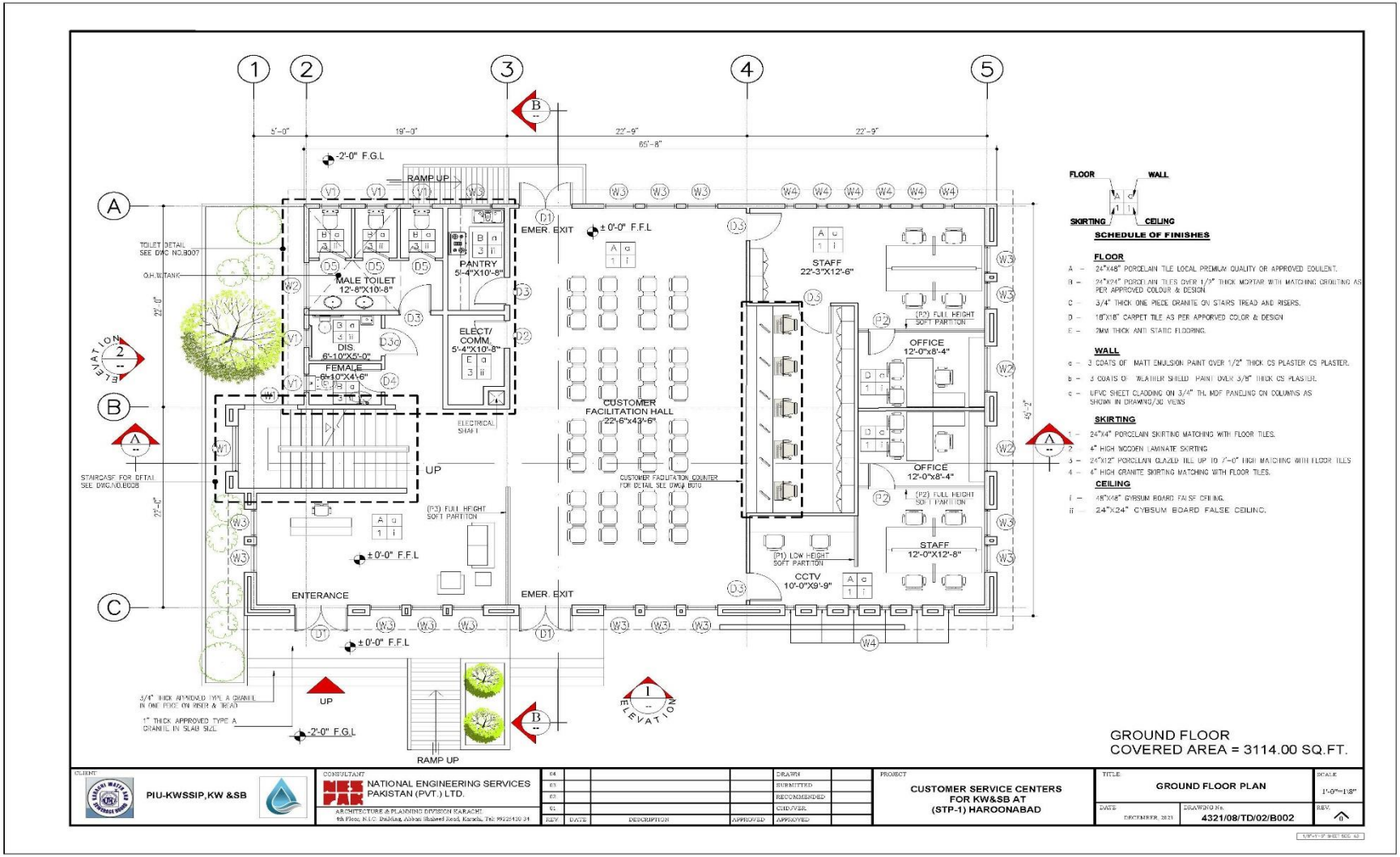


Figure 2.5: Typical Ground Floor Plan of CSCs

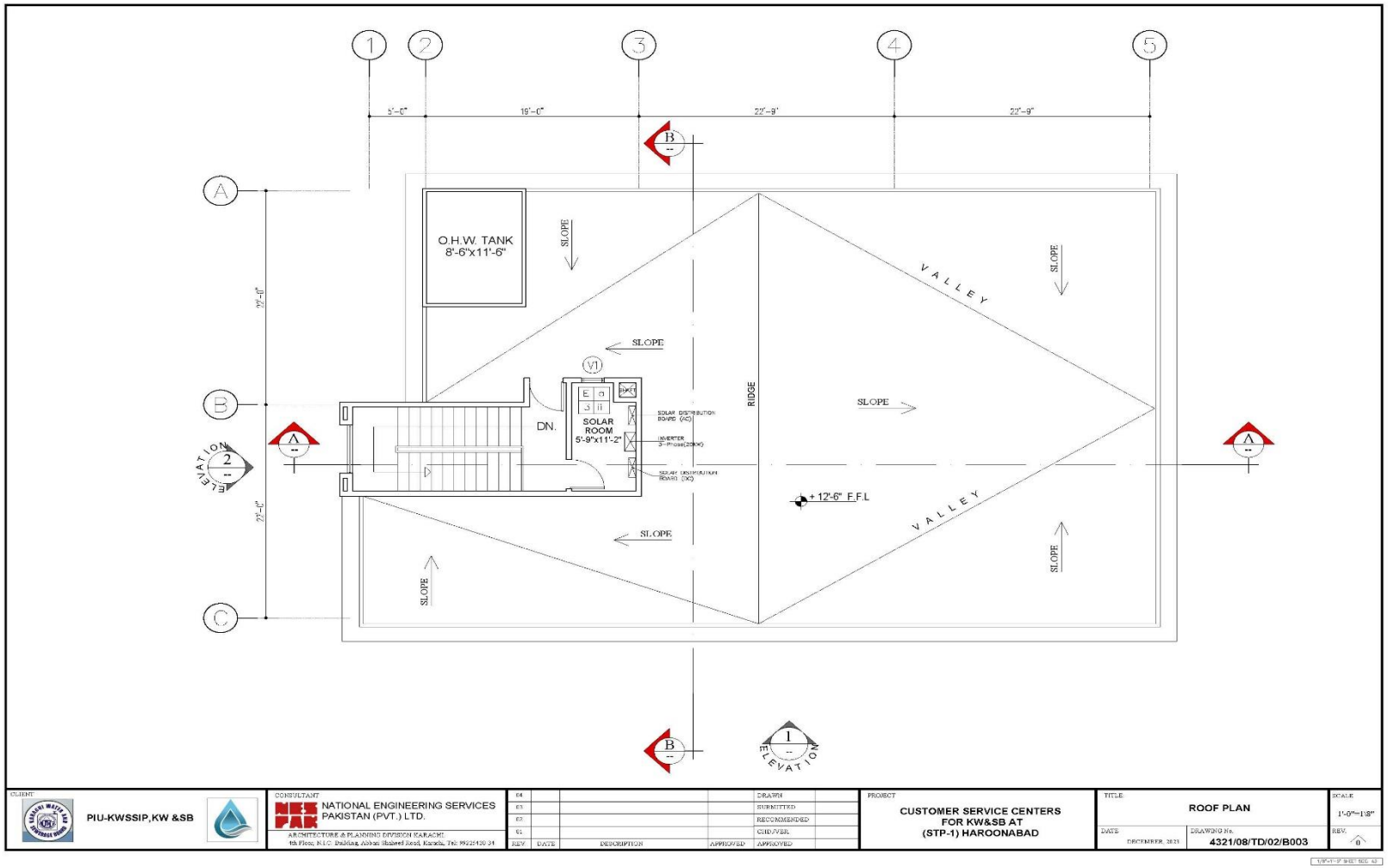


Figure 2.6: Typical Roof Plan of CSCs

3. REGULATORY REVIEW

3.1 Overview

Three sets of laws, policies and strategies i.e., national, provincial, and World Bank Operational Policies (OPs)[2] are applicable for the project. **Table 3.1** presents a list of these laws, policies and strategies that are applicable to the project.

Table 3.1: Applicable Laws, Policies, Standards and Strategies

Key National Laws, Regulations and Policies	**1.**	Pakistan Climate Change Act, 2016
	2.	Pakistan Penal Code 1860
	3.	Protection of Trees and Brushwood Act, 1949
	4.	Antiquities Act 1975
	5.	Pakistan Labor laws
	6.	Fatal Accidents Act 1855
Key Provincial Laws, Regulations and Policies	**1.**	Sindh Environmental Protection Agency (Environmental Assessment) Regulations, 2021
	2.	The Sindh Occupational Safety and Health Act, 2017
	3.	The Sindh Prohibition of Employment of Children Act, 2017
	4.	Sindh Environmental Quality Standards, 2016
	5.	Sindh Minimum Wages Act, 2015 (Sindh Act No. VIII of 2016)
	6.	Sindh Workers Compensation Act, 2015
	7.	Sindh Environmental Protection Act (SEPA), 2014
	8.	The Protection Against Harassment of Women at the Workplace Act, 2010
Applicable World Bank Policies/ Framework	**1.**	World Bank Operational Policies
		Environmental Assessment (OP 4.01) *Gender Policy (OP 4.20)* *Access to Information (BP 17.50)*
	2.	Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labor Influx
	3.	Environmental, Health & Safety Guidelines

[2] According to the Project Appraisal Document, the E&S instruments for KWSSIP-1 will be prepared based on OPs.

4. PUBLIC CONSULTATIONS

The proposed CSCs will be constructed within the premises of existing KW&SC facilities. The project does not involve any private land acquisition as well as it is not envisaged to have any permanent or temporary loss to the businesses. However, the project activities may affect the KW&SC employees working in those facilities. Therefore, a consultative approach was adopted to take those employees on board and inform them about the proposed interventions. The photographs of consultation meetings are shown in **Plate 4.1** below:

Plate 4.1: Glimpses of Consultation Meetings

The primary stakeholders of the project include KW&SC, PIU-KWSSIP and the staff of KW&SC present at the sites. SEPA is an important stakeholder but the current subprojects do not require environmental clearance from SEPA. The local communities are also key stakeholders for any project, but none of such communities are identified at any of the sites which could be directly affected by the proposed project activities.

4.1 Finding of the Consultation:

All the project sites were visited and consultations were done with the available KW&SC staff. Following are the major findings of consultation meetings:

i. STP-I, Haroonabad

- Currently, there is no visitor movement at the STP-I site. The construction of CSC will allow the people to enter the boundary of STP-I where there are important installations. It is suggested to restrict the mobility of customers/visitors during the operation of CSC.
- There is an existing drain in front of the main entrance gate, which needs to be covered to avoid nuisance and protection of the visitors.

ii. Sukhi Hassan Pump House, Gulberg

- There is water hydrant adjacent to the proposed site. The construction of CSC at the site might cause traffic congestion issues. Hence a separate entrance with dedicated parking facility should be provided with the proposed CSC.
- The workers in the existing offices (to be demolished) expressed concerns related to their relocation during construction of the CSC.

iii. LSR, Gulshan e Iqbal

The proposed site is owned by KW&SC but presently it is not in any use. None of the KW&SC staff is currently deployed there. There are residential apartments in the surroundings but the project activities are not envisaged to have any direct impact on them, as the scope of project is very limited and all the activities will be executed with the KW&SC premises.

iv. Sindh Environmental Protection Authority (SEPA)

A consultation was held with SEPA to seek their advice on the required documentation for environmental clearance. It was advised that according to “Sindh Environmental Protection Agency (Environmental Assessment) Regulations, 2021”, a project needs to file an Environmental Checklist if the covered area is between 60,000 to 100,000 square feet. However, in the present case all of the proposed CSCs have covered area less than 60,000 square feet and hence do not require environmental clearance from SEPA.

5. SCREENING OF SUBPROJECT

5.1 ENVIRONMENTAL AND SOCIAL SCREENING

Environmental and Social Screening was carried out for the subproject to categorize it based on potential environmental and social impacts due to execution of the project activities.

Sub-projects under KWSSIP have a prior requirement of screening which is based on three categories; viz., nature of the project, size of the project and location of the project that is sensitive area criteria. Based on this assessment, sub-projects with potentially significant environmental/ social risks are identified at an early stage for detailed Environmental/ Social Impacts Assessment.

Methodology of Environment and Social Screening Study

Following methodology was adopted for Environmental and Social Screening:

- Review of literature, policies and project related documents;
- Site visits;
- Consultations and
- Screening checklist

The above-mentioned tools were used to identify the category of the project. Three categories each for environmental and social aspects have been defined. The criteria for categorization are given hereunder:

Category	Criteria of Categorization
Environmental	
A	All those sub-projects having negative environmental impacts of severe nature (significant, widespread, irreversible, and/or unprecedented will be categorized as A. An Environmental & Social Impact Assessment Report is required for such projects.
B	All those subprojects having negative environmental impacts of moderate nature will be categorized as B and for such projects, preparation & submission of an Environmental & Social Management Plan will be necessary.
C	All those subprojects having no or minimal negative impact on the environment, will be categorized as C and for such subprojects, no further environmental assessment will be required, however, preparation and submission of the Environmental & Social Screening Checklist will be required and any minor impact if assessed through screening checklist will be mitigated accordingly.
Social	
A	All those sub-projects having 200 or more affected persons will be categorized as A and for category A projects, preparation & submission of a Resettlement Action Plan (RAP) will be mandatory.
B	All those sub-projects having less than 200 affected persons will be categorized as B and for the category B sub-projects, preparation and submission of an Abbreviated Resettlement Action Plan (ARAP) will be mandatory.

Category	Criteria of Categorization
C	All those sub-projects having no negative social impacts will be categorized as C and for the C category of sub-projects, preparation and submission of an environmental & social screening checklist will be required and no further process of instruments preparation will be needed.

Environment and Social Issues

A. Environmental Issues

All the three proposed sites for CSCs are located within various facilities of the KW&SC. The scope of the activities is minor as it pertains to construction of a single-story building at each site. The site-specific environmental issues are given hereunder:

CSC at STP-I, Haroonabad: The proposed land for the CSC, within the premises of STP-I is open land with no current usage. The land is adjacent to STP-I office building. There is adequate space available for material stockpiling, construction camp, movement of machinery and labors within the premises. However, environmental issues are anticipated which will have limited, site-specific impacts reversible in nature. Most of the environmental impacts are expected during construction period of the project including waste management, dust and noise generation etc. There are no sensitive areas like specially protected areas or threatened or endangered endemic species in the project area.

The treatment facilities of STP-I are located at an adequate distance from the CSC site and hence the operation of STP-I is not expected to pose and health issues to the visitors and staff.

CSC at Sakhi Hassan Pump House, Gulberg Town: The CSC at Sakhi Hassan Pump House will be built after demolition of very small existing office buildings. Dismantling of old building, removal or trees and disposal of demolition waste will be the major issues which need to be handled by adopting good engineering practices. There are no sensitive areas like specially protected areas or threatened or endangered endemic species in the project area.

CSR at LSR, Gulshan e Iqbal: The proposed site at LSR is covered with thick vegetation. There are trees of and bushes of various species. But all of them will not be cut as a very small chunk of land will be required for construction of the proposed facility. The removal of trees will be a major environmental concern.

i. Presence of Eco-sensitive Features/ Natural Habitats

None of the declared eco-sensitive features or natural habitats were identified in the project area.

ii. Clearance of Vegetation

Some trees will be cleared/removed prior to execution of the works. The details are summarized in **Table 5.1**:

Table 5.1: Affected Trees

Sr. No.	Location	Numbers	Types
1	STP-1	00	---
2	Sakhi Hassan Pump House	07	Jaman (01), Neem (01), Beri (01), Peepal (01), Conocarpus (03)
3	LSR	12	Tamarind (02), Neem (01), Toot (01), Beri (01), Conocarpus (07)

iii. Noise & Dust

Noise and dust will be generated due to project activities and will require noise control measures and adequate sprinkling of water.

iv. Health & Safety of Workers

Health risks and worker's safety problems may result at the workplace if the working conditions provide an unsafe and/or unfavorable working environment. Health and safety issues are also associated with the operation of construction machinery and equipment, which may cause minor and severe injuries to workers. Working at height will be a major threat and the inappropriate stockpiling of materials and parking of machinery may cause serious damage.

B. Social Issues

i. Availability of Land

All of the proposed sites are owned by KW&SC (as informed by KW&SC officials) and no private land acquisition is involved.

ii. Anti-Encroachment Drive (AED)

The project appraisal document (PAD) for KWSSIP outlines that any of the sub-project involving AED after October 2018 shall not be financed. However, as stated earlier, the proposed sites are within the premises of the KW&SC facilities and do not require AED screening.

iii. Disruption to Traffic and Visitors

The project activities will be executed within the boundaries of KW&SC facilities and hence will not create any disturbance to traffic and visitors. However, there is an existing wastewater drain (8-10 feet wide) in front of the STP-I. Visitors might feel discomfort during the operational phase. Adequate measures need to be taken to nullify the odor.

iv. Access issues

The access will not be affected and people will not face any problems in traveling to their workplaces, business points or also to the religious and cultural sites.

Findings of Environmental Screening

A summary of findings of Environmental Screening are given in **Table 5.2**: Findings of Environmental Screening**.** For detailed checklists please refer to **Annex-I.**

Table 5.2: Findings of Environmental Screening

Screening Parameters	STP-1	Sakhi Hassan Pump House	LSR
Effect to Eco Sensitive Receptors	×	×	×
Clearance of Vegetation		✓	✓
Water Pollution	×	×	×
Flooding	×	×	×
Soil Contamination	×	×	×
Noise & Dust	✓	✓	✓
Disruption to Traffic and Visitors	×	×	×
Damage to Existing Infrastructure	×	×	×
Health & Safety Issues	✓	✓	✓
Solid Waste	✓	✓	✓

Legend:

✓ = Impact triggers due to project activities

× = Impact does not trigger due to project activities

A. Categorization Based on Environmental Screening

The sub-project activities are categorized in **Table 5.3** based on the findings of Environmental Screening.

Table 5.3:Categorization Based on Environmental Screening

Categorization	Further Studies Required
C	None (Current Environmental & Social Screening Report will serve the purpose)

Findings of Social Screening

Summary of findings of Social Screening are given in **Table 5.2**: Findings of Environmental Screening**.** For detailed checklists please refer to **Annex-II.**

Table 5.4:: Initial Findings of Social Screening

Screening Parameters	STP-1	Sakhi Hassan Pump House	LSR
Land Acquisition	×	×	×
Loss of Shelter	×	×	×
Loss of Agriculture	×	×	×
Loss of crops, trees and fixed assets	×	✓	✓
Loss of Business/Livelihood (Temporary)	×	×	×
Loss of Business/Livelihood (Permanent)	×	×	×
Loss of Sources of Income	×	×	×
Dislocation of People	×	×	×
Restriction of Access	×	×	×
Indigenous Peoples	×	×	×
Anti-Encroachment Drive	×	×	×
SEA/SH/GBV	✓	✓	✓

Legend:

✓ = Impact triggers due to project activities

× = Impact does not trigger due to project activities

A. Categorization Based on Social Screening

The sub-project activities are categorized in **Table 5.5** based on the findings of social screening:

Table 5.5: Categorization Based on Social Screening

Categorization	Further Studies Required
C	None (Current Environmental & Social Screening Report will serve the purpose)

Requirement of Further Studies

The scope of the project is limited and minor environmental impacts are associated with the proposed activities. Although, removal of vegetation is involved, but majority of trees i.e., 10 nos. are Conocarpus. These trees are non-native trees and are being cut throughout the city by the District Administration due to their negative impacts on local species, environment as well as human health. However, a tree plantation plan is part of the report and new trees will be planted with the proposed CSCs. Overall, the impacts of the activities are insignificant and hence detailed environmental studies are not required.

According to World Bank Operational Policy, OP 4.12 (Involuntary Resettlement), a subproject will be considered a Category C project if the number of Project Affected Persons (PAPs) is zero and hence does not require RAP/ARAP.

6. ENVIRONMENTAL AND SOCIAL MITIGATION PLAN

To ensure environmental and social compliance with regulations and guidelines, a brief Environmental and Social Mitigation Plan has been prepared.

The objective of the Environmental and Social Mitigation Plan (ESMP) is to ensure implementation of the proposed mitigation measures during design, construction and operational phases of the proposed Project. The ESMP defines roles and responsibilities, reporting mechanism, training needs and schedules and budget to implement the ESMP.

The current screening report will be the part of bidding documents and its implementation will be the legal binding on the construction contractor (CC).

6.1 Implementation of ESMP

The institutional arrangement for the implementation of ESMP for the subproject is presented in **Figure 6.1**. The PIU-KWSSIP will be responsible for the compliance of environmental and social safeguard requirements of the KWSSIP.

The project activities will be monitored and managed by the PIU-KWSSIP. The Environmental and Social Cell (ESC) staffed by qualified environmental, social and gender specialists, has already been established under PIU-KWSSIP. The Environmental & Social Cell (ESC) will be the custodian of the ESMP. ESC will submit progress reports for the implementation of the ESMP to WB and Sindh Environmental Protection Agency (SEPA) as per environmental approval/ NOC conditions for the KWSSIP.

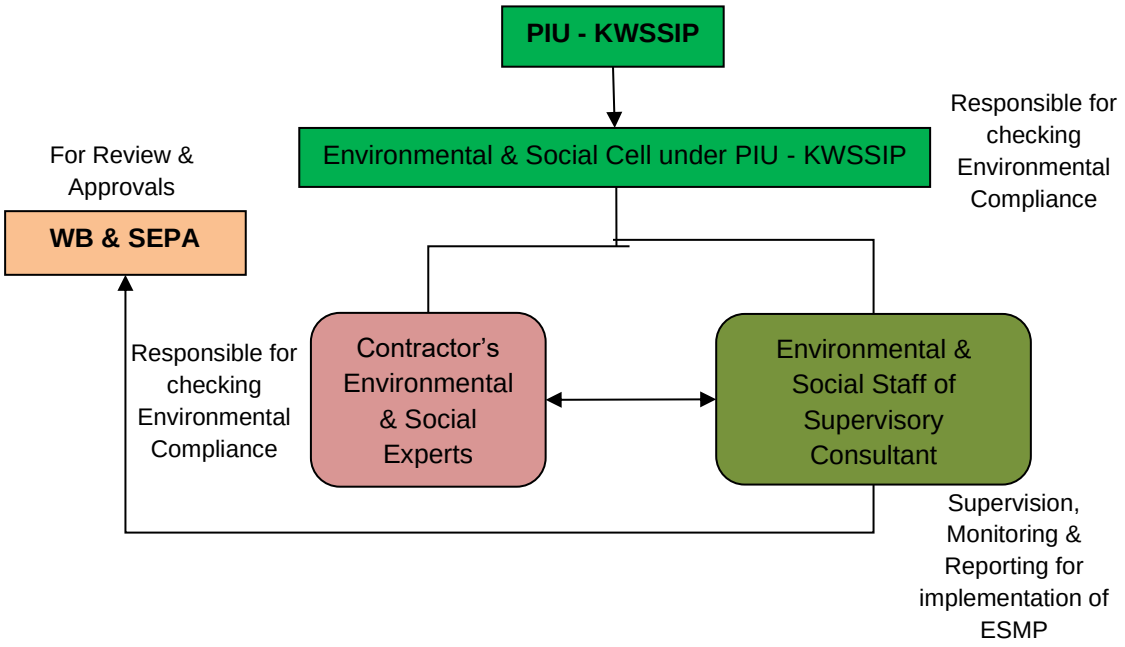


Figure 6.1: Organizational Setup for Implementation of ESMP

6.1.1 Roles and Responsibilities of the Functionaries involved in ESMP Implementation

A. SEPA

As per Sindh Environmental Protection Act, 2014, SEPA is responsible for the approval of the Environmental Assessment reports.

B. PIU-KWSSIP and ESC

Project Director of PIU-KWSSIP is the in-charge for the financial and technical matters related to this project. His responsibilities for monitoring the ESMP will consist of:

- Ensuring that the required environmental training is provided to the concerned PIU staff;
- To carrying out random site visits to the construction sites to review the environmental performance of the Contractor;
- Review monitoring reports for the progress of environment related activities;
- Make sure that the Contractor is implementing the additional measures suggested by the Supervision Consultant (SC) in environmental monitoring reports;
- To assist Contractor for obtaining necessary approvals from the concerned departments;
- Maintaining interface with the other lined departments/ stakeholders.

A. Environmental and Social Cell (ESC-PIU)

An ESC has already been established in PIU, which consists of three specialists – one environment specialist, one social safeguard specialist, and a gender specialist. The PIU will hire the services of an independent environmental and social consultancy firm for Third Party Validation (TPV). The PIU's responsibilities for monitoring the ESMP will consist of:

Environmental Specialist

- Ensuring that the required environmental training are provided to the concerned PIU staff;
- To carry out random visits to the construction sites to review the environmental performance of the Contractor;
- Review monitoring reports for the progress of environment and social management of the Project;
- Make sure that the Contractor is implementing the additional measures suggested by the Supervision Consultant (SC) in environmental and social monitoring reports;
- Maintaining interface with the other line departments/ stakeholders; and
- Reporting to the SEPA on status of ESMP implementation.
- Make sure that all the contractual obligations related to the environmental and social compliance are met;
- Monitor the progress regarding implementation of environmental safeguards as provided in the ESMP;
- Oversee the compliance of all the monitoring programs as given in ESMP;

- Check randomly whether monitoring of the environmental aspects of the Project during construction and operational phases is being properly carried out;
- Document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports, and make follow-up on these actions to ensure progress toward the desired outcomes;
- Make sure that the Contractor implements the additional measures suggested by the monitoring and evaluation (M&E) Contractor; and
- Report the status of ESMP compliance to Project Director, PIU-KWSSIP.

Social Development Specialist

- Ensure the required trainings on community engagement, community health and safety and other social safeguards compliance are imparted to the Project Management and Contractors work force
- Monitor the progress regarding implementation of social safeguards as provided in the ESMP;
- Oversee the compliance of all the social monitoring programs as given in ESMP;
- Review the progress monitoring reports for the social management of the Project;
- Make sure that the Contractor is implementing the additional measures suggested by the Supervision Consultant (SC) in environmental and social monitoring reports;
- Maintaining interface with the other line departments/ stakeholders;
- Ensure adequate site-level arrangements for GRM and dedicated and training work force for identifying, recording and monitoring complaints
- Monitor the complaints registration process under GRM and suggest corrective actions as necessary;
- Conduct periodic consultations with the primary stakeholders

Gender Specialist

- Resolve any GBV and SEA/SH related issues reported;
- Monitor the compliance of gender related measures;
- Oversee the gender issues reported through GRM.

C. Supervision Consultant (SC)

Roles and responsibilities of SC will be:

- To oversee the performance of the Contractor to make sure that the Contractor is complying with ESMP;
- Ensuring that the day-to-day construction activities are carried out in an environmentally and socially sound and sustainable manner;
- Strong coordination with the Contractor and PIU-KWSSIP;
- Preparing E&S training materials and implementing programs;
- Ensure the implementation of the mitigation measures suggested in ESMP;
- To supervise and monitor environmental and social activities being performed at site;

- To organize periodic environmental and social training programs and workshops for the consultant's and contractor's staff;
- Periodic reporting as mentioned in ESMP; and
- Suggest any additional mitigation measures (if required).

D. Construction Contractor (CC)

The contractor will be primarily responsible for ensuring implementation of the mitigation measures proposed in the ESMP, which will be part of the contract documents and its implementation will be a contractual binding for the contractors. The provision of the environmental and social mitigation cost will be made in the total cost of project. However, if the contractor fails to comply with the implementation of ESMP and submission of the monthly compliance reports, deductions will be made from the payments to the Contractor claimed under the heads of environmental and social components.

Contractors will be bound to carry out the following activities:

- Implementation of the mitigation measures as detailed in ESMP at construction site;
- Contractor will be bound through contract to take actions against all the special and general provisions of the contract document;
- Contractor will make sure the compliance of ESMP requirements related with construction;
- Implementation of OCHS control measures including provision of proper Personal Protective Equipment (PPE) to the workers and train them for their proper use;
- Compliance with international best SOPs for COVID 19;
- To conduct the environmental and health and safety training to the workers/labour; and
- To assess the site-specific issues and implement mitigation measures accordingly
- Provide harassment free and safe secure environment for the labor and community specially community women and children.

The contractor will prepare a site specific ESMP based on the current ESMP and will get it approved from SC. This will ensure the implementation of the ESMP based on the site conditions at the time of execution, by the contractor.

Table 6.1: Environmental and Social Mitigation and Monitoring Plan

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
Design/ Pre-Construction Phase						
1.	Layout Planning & Design	To ensure safe and efficient functioning of the facility	• All structural, layout and engineering design of the project are in strict accordance with the applicable standards.	Efficient and contemporary design prepared	PIU-KWSSIP	DC, PIU-KWSSIP
2.	Energy and Lighting	To conserve the energy resources	• The design of the buildings will facilitate the maximum utilization of natural light in day time beside the artificial lights; and • Double-glazed glass has been used in the front which will help in reducing heat transfer through the windows. • The Energy Efficient LED lights with high lumens output per watt have been proposed to save maximum energy consumption in the building. • A Variable Refrigerant Flow system is proposed. It is a cooling/heating system with high efficiency.	Provision of natural lights during day and energy efficient fixtures in the design	PIU-KWSSIP	DC, PIU-KWSSIP
3.	Seismic Hazard	To keep the structures safe and intact in case of earthquakes.	• Seismic Building Code of Pakistan 2007 (SBC-07) has been adopted.	Earthquake proof design prepared	PIU-KWSSIP	DC, PIU-KWSSIP
4.	Traffic/ Parking Problem	To ensure sufficient parking area	• Adequate parking facilities for employees and visitors has been provided along with separate entry gates for incoming and	Adequate provision of parking and	PIU-KWSSIP	DC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			outgoing vehicles.	approach road in the design		
5.	Emergency Response	To manage any hazardous circumstances in case of emergency	• The Building Regulations of Karachi Development authority (KDA) have been strictly adhered to. Complete equipment control system, fire escape stairs and secured access system supplemented with close circuit surveillance equipment/alarms have been included in the design of the building. • Adequate internal and external water distribution system has been designed, and provision of fire reserve in the underground and the overhead tanks has been kept, with standby system for drawing sufficient water from the fire reserve.	Safety measures incorporated in the design	PIU-KWSSIP	DC, PIU-KWSSIP
6.	Fire Fighting System	To combat fire hazard.	• An adequate firefighting system has been provided in the project design including sufficient number of emergencies exits & routes; fire hoses, DCP fire extinguishers and fire alarms etc.	Firefighting arrangements in the design	PIU-KWSSIP	DC, PIU-KWSSIP
7.	Removal of Vegetation /Trees	To minimize the impact on flora due to project activities	• Compensatory plantation will be done against each tree that will be cut/ disturbed, i.e., 10 trees will be planted in compensation of 1 tree. • A tree plantation plan has been proposed and given in the proceeding section for net environmental improvement in the	Requisite number of trees planted	PIU-KWSSIP	DC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			project area.			
8.	Effects of Concrete	To mitigate and avoid the heat island effect	• The building has been designed with energy-efficient envelopes that include proper insulation and shading to reduce heating and cooling needs; • Design includes appropriate thermal mass to help regulate indoor temperatures.	Energy efficient measures adopted in the design	PIU-KWSSIP	DC
Construction Phase						
1.	Air Quality	To avoid air pollution	• All vehicles, machinery, equipment and generators used during construction activities will be kept in good working condition, properly tuned and maintained to minimize the exhaust emissions; • The C&D will be transferred to the secondary users and domestic waste (low in quantities) will be transferred to the community bins; • Open burning of solid waste from the contractor's camps will be strictly banned; • SEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery will be enforced during construction works; • Regular water sprinkling on the site and access roads will be carried out to suppress excessive dust emission(s); • The vehicles carrying construction	Visual inspections	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			materials and the construction material storage areas will be covered with tarpaulin; • ; • Construction workers will be provided with masks for protection against the inhalation of dust.			
2.	Noise	To avoid noise pollution	• Construction workers will be provided suitable hearing protection like ear cap, or earmuffs and training them in their use; • Selection of up-to-date and well-maintained equipment with reduced noise levels will be ensured by suitable in-built damping techniques or appropriate muffling devices; and • Confining of excessively noisy areas and limiting the work to normal working hours in the day.	Elevated noise levels observed	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
3.	Disposal of Demolition / Construction Debris	To avoid/ minimize nuisance and environmental pollution in the project area due to solid waste	• The waste will be transferred to the secondary users (see Annex-VI, Waste Management Plan). • Effective and instant removal of unusable construction wastes such as broken bricks/concrete blocks, damaged pipes, leftover steel bars, wooden, glass and plastics pieces will be recycled. • Possibilities of re-use of waste concrete material and construction waste from demolition works will also be explored.	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			Such waste material could be used as filling material in paving large concrete floors.			
4.	Biodiversity Conservation A. Flora	To minimize the impact on flora due to project activities	• Regular water sprinkling will be done to suppress the dust; • Construction vehicles, machinery and equipment will remain confined within their designated areas of movement; • Excavations will be limited to the approved engineering drawings; • Mistreatment of animals will be prohibited	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
	B. Fauna			Visual inspection	SC, PIU-KWSSIP	
5.	Health and Safety A. Occupational Health and Safety	To minimize health risks to workers due to project activities	• Obligatory insurance against accidents for laborer/ workers and implementation of the provisions of Fatal Accidents Act; • The site will be declared as 'no-go area' for general public; • Providing basic medical training to specified work staff and basic medical service and supplies to workers; • Double guard rails, floor coverings, safety harnesses coupled to lanyards that prevent workers from reaching unprotected edges (fall restraint) will be provided for the works at certain heights; • Implementation of Health and Safety Management Plan (**Annex – III**).	Visual inspection, Incident reported	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
	B. Community Health and Safety	To minimize health risks to public due to	• Ensure that the site is restricted for the entry of irrelevant people particularly children;	Visual inspection,	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
		project activities.	• Efforts shall be made to create awareness about road safety among the drivers operating construction vehicles; • Provision of proper safety signage, particularly at sensitive/accident-prone spots; • The wastes will be temporarily stored at appropriate locations i.e., inactive construction sites within the boundary of project area and then will be transferred to the ultimate disposal point; • Safety signage will be provided along the approach road as well as the project site; • COVID-19 SOPs must be followed at work site and construction camps; and • Deep excavation will be protected by fence/barricade to avoid any accident.	Incident reported		
	C. Emergency Response (Natural and Man-Made Disasters)	To eliminate/ minimize natural and man-made hazards	• An Emergency Response Plan (**Annex - IV**) will be implemented; • Training of the staff/employees regarding the emergency procedures/plans will be regularly conducted; • Emergency numbers will be clearly posted; and • Minor incidents and near misses will be reported, and preventive measures will be formulated accordingly.	Visual inspection, Incident reported	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
7.	Sanitation and Solid Waste Disposal	To avoid/ minimize nuisance and environmental pollution in the project area due to liquid & solid waste	• The ordinary solid waste such as wood, plastic, metal, glass etc. will be handled and collected properly at site and will be transferred to the community container located near the project site. •	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
9.	Soil Erosion	To avoid degradation of soil.	• Use of heavy machinery will be restricted as far as possible to avoid the destruction of soil structure; • Confining excavations to the specified spots as per the approved engineering drawings and unnecessary excavations will be avoided; • Stored excavated material will be covered and preferably reused, e.g., in construction as backfill etc.			CC, SC, PIU-KWSSIP
10.	Soil Contamination	To avoid Contamination of soil.	• Store chemicals/ hazardous products and waste on impermeable surfaces in secure, covered areas with clear labeling of containers and with a tray or bund to contain leaks; • Regularly remove all construction wastes from the site to approved waste disposal sites; • Washing yards will be paved to avoid seepage of runoff from the yard; • Awareness in emergency spill response	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			procedures will be conducted; • Oil leakages, chemicals and other liquids spills will be avoided/ minimized by providing appropriate storage places i.e, inactive construction sites within the boundary of the project area depending on the type of material for storage.			
11.	Temporaray tent facilities	To avoid construction camp-related issues	• Working hours of noisy activities will be limited to normal daytime working hours; • Construction camps will be established away from populated areas. • Regular training of workers will be carried out.	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
12.	Water Quality	To avoid any water pollution	• Stockpiles of cement and other construction materials will be kept covered when not being used; • No activity may be undertaken in monsoon and careful attention will be paid to weather forecast before excavation operations; • All kinds of waste will be stored in covered containers and disposed of safely as soon as possible; and • The contractor will ensure that construction debris do not find their way into the drainage which may get clogged.	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
13.	Municipal and Construction Waste/ Wastewater	To prevent inconvenience arising from	• Solid Waste generated during construction and campsites will be transferred to secondary users;	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
		the disposal of liquid and solid and liquid wastes.	• Burning of waste will be prohibited; • Proper labeling of containers, including the identification and quantity of the contents, hazard contact information etc.; • Containers with covers will be provided on-site to store waste; and • Training of work force involved in the storage, handling and transportation of hazardous material regarding emergency procedures.			
14.	Resource Conservation		• Wastage of water will be reduced by training the workers involved in water use; • Source of water will be carefully selected. Water use will not disturb the existing community water supplies; • Reuse of construction waste materials will be considered; • Unnecessary equipment washings will be avoided; • The efficient and well-maintained equipment and machinery will be used; • The equipment and machinery will be turned off when not in use; • Regular maintenance of machinery to avoid fuel leakages.	Visual inspection	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
15.	Flammable and Hazardous Materials	To avoid impacts of flammable and	• For safety of construction labour, the contractor's staff will be trained about the procedures of safe use, handling and storage of materials;	Visual inspection, Material	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
		hazardous materials		Safety Data Sheets		
16.	Gender Based Violence	To avoid GBV related issues	• The Contractor will make sure that no discrimination is made on the basis of gender while hiring of workers; • Contractor will take proper measures to address and resolve issues relating to harassment, intimidation, and exploitation, especially in relation to women.	Incident reported	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
17.	Chlid Labor & Child Abuse	To avoid violence towards children,	• To children under the age of 16 will be employed by the Contractor for any of the works; • Workers Code of conduct will be signed by all the labors to present a responsible behavior towards the community specially the children and women; • Regular trainings and monitoring will be conducted to avoid any mishaps towards the children.	No children under 16 are employed by the Contractor. Workers code of conduct are developed and signed at the hiring of workers.	SC, PIU-KWSSIP	CC, SC, PIU-KWSSIP
			•			
Operation Phase						
1.	Noise Pollution	To avoid Noise pollution	• Noise will be controlled through proper sound proofing/ rubber lining of walls which will be built into the design/interior decoration of the building; • Noise levels of generators, plant rooms	Visual inspection	KW&SC	KW&SC

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			etc. will be monitored and workers of the area will be provided with ear muffs and noise protection gears; • The ambient noise standards will be followed; and • There will also be prohibition on the honking of horns near the building.			
2.	Solid Waste	To avoid/ minimize nuisance and environmental pollution in the project area due to solid waste	• The waste will be segregated in separate containers, stored at designated sites and transported frequently to the designated dumping site either by the help of KMC or by hiring a dedicated waste collection contractor; • The e-waste will be given special attention in view of Basel Convention and will be transported to reuse facility.	Visual inspection	KW&SC	KW&SC
3.	Emergency Response/ Preparedness/ Training	To prepare for any emergency conditions	Personnel will be trained in the use of following: • Internal alarm / notification system • Evacuation Management System • Re-entry procedures & assembly point locations • Emergency incident reporting system • External emergency response organization System • Location(s) and contents of Emergency • Two levels of response will be contemplated: ○ With Internal Personals	Safety measures adopted	KW&SC	KW&SC

Sr. No.	Parameters	Target	Mitigation	Monitoring Indicator	Monitoring Responsibility	Responsibility
			○ With External Agencies, such as Civil Defence, Fire Brigade, Police, Rescue, Ambulance services etc. **Risk management** The management of contingencies at the CSCs will be based on: • Early detection of smoke and fire (alarms, detectors, setting off of safety elements); • Confinement of emergency / affected area; • Application of the adequate response procedure; • Follow-up and monitoring.			
4.	Traffic Management	To avoid traffic congestion issues	• Ensure adequate and proper parking for vehicles according to the traffic/Parking plan.	Adequate parking provided	KW&SC	KW&SC
5.	Odour	To avoid nuisance to the visitors	• The drain in front of the TP-I will be covered; • Trees will be planted to contain the odour;	Disturbing odour	KW&SC	KW&SC
6.	Community Health & Safety	To ensure safety of visitors	• The drain in front of TP-I will be covered to avoid falling of the visitors; • Provision of first aid medical facilities at the CSC.	Safety measures adopted	KW&SC	KW&SC

Legend:

DC	Design Consultant	SC	Supervision Consultant
CC	Construction Contractor	PIU	Project Implementation Unit
KWSB	Karachi Water and Sewerage Board		

6.2 Monitoring

The overall objectives of the monitoring activities are to:

- Ensure regulatory requirements are met;
- Check that impacts do not exceed project standards and other environmental standards;
- Verify that mitigation measures are effective and implemented in the manner described in **Table 6.1**;
- Provide early warning of potential environmental impacts; and
- Inform future operations and contribute to continuous improvement in the management of environmental and social issues related to the project.

6.2.1 Monitoring Approach

Monitoring will be carried out by the Supervision Consultants (SC) and Project Implementation Unit (PIU), and its contractors pursuant to their contractual obligations to undertake inspections, monitoring and reporting. The following four types of inspections and monitoring will be employed.

- **Inspections** planned and conducted on a regular basis to ensure that mitigation measures and commitments are properly maintained and implemented, and that specific management procedures are being following (e.g., practices on waste storage and disposal).

- **Receptor monitoring** undertaken to verify predictions made in the screening report and to confirm that the activities at the site are not resulting in an unacceptable deterioration in the quality of habitats or infrastructure (e.g., monitoring disturbance to affected residents through a grievance mechanism).

- **Compliance monitoring** involving periodic sampling or continuous recording of specific environmental quality indicators or discharge levels to ensure compliance of discharges and emissions with project standards (e.g., produced water discharges and air emissions).

The frequency of inspections, monitoring and audits and subsequent reporting will be based on the project risks. The outputs will be used in the following ways.

- To provide early warning for site management and to adjust mitigation measures on a day-to-day basis to cater evolving conditions.

- To enable contractors to demonstrate that mitigation measures and procedures laid down in mitigation plans are being followed and operations are being conducted within compliance limits.

- To provide formal assurance to PIU that the project is compliant with regulations and agreed limits and that relevant mitigation / enhancement measures are being adhered to.

The monitoring checklist is attached as **Annex – V**.

6.3 Reporting

The contractor will prepare and submit monitoring reports for compliance of implementation to supervision consultant environmental team. The distribution of periodic reports is given in **Table 6.2.**

Table 6.2: Distribution of Periodic Reports

Report	Prepared by	Reviewed by	Distribution
Start of the Project	Contractor	Reviewed by PIU-Environmental, Social & Gender Unit; KWSSIP	The Engineer and Project Implementation Unit
End of the Project	Contractor	Reviewed by PIU-KWSSIP-Environmental Social & Gender Unit; KWSSIP	The Engineer, Project Implementation Unit and The World Bank

6.4 Grievance Redress Mechanism (GRM)

The purpose of the Grievance Redress Mechanism (GRM) is to receive, review and resolve grievances from project affectees or community members and ensure smooth and fair implementation of subproject activities. The Grievance Redress Committee (GRC) and Gender Based Violence (GBV) Committee have been established in PIU-KWSSIP through a notification**.**

6.4.1 GRM Principles

A GRM is established to address any complaints or grievances arising during the implementation period of the projects. People of the project area may perceive risks to themselves or their property or their legal rights or have concerns about the possible adverse environmental and social impact that a project may have. Any concerns or grievances will be addressed quickly and transparently, and without retribution to the project affectees or community members or complainant.

The primary principle of GRM is that all complaints or grievances are resolved as quickly as possible in a fair and transparent manner. All minor complaints regarding E&S issues, land or property issues or business/livelihood losses will be addressed immediately at community level Grievance Redress Committee (GRC) through involvement of project affectees and community members. In case the grievances cannot be resolved at the community GRC, the project affectees or community members may make a complaint to the project GRC and afterward at PIU-GRC, the details of which are provided under sub-sections. The focus of the GRM is to resolve issues in a customarily appropriate fashion and record details of the complaint, the complainant and the resolution.

6.4.2 Objectives

The objectives of the GRM are to:

- develop an organizational framework to address and resolve the grievances of individual(s) or community(s), fairly and equitably;
- provide enhanced level of satisfaction to the aggrieved;
- provide easy accessibility to the aggrieved/affected individual or community for immediate grievance redress;
- ensure that the targeted communities and individuals are treated fairly at all times;
- identify systemic flaws in the operational functions of the project and suggest corrective measures; and
- ensure that the operation of the project is in line with its conception and transparently to achieve the goals for sustainability of the project.

6.4.3 Type of Complaints

The major complaints that may arise during the execution of the proposed project at site include but not limited to:

- Environment and social issues (dust, noise, air pollution, social and cultural issues);
- Damage and blockage of public utilities;
- Traffic inconvenience;
- GBV and harassment.
- Resettlement issues including loss of livelihood;
- Issues related to compensation of resettlement impacts.

6.4.4 Disclosure of GRM

The GRM will be disclosed at PIU-KWSSIP, KWSB head offices, and concerned Executive Engineer (XEN) and Superintendent Engineer (SE) offices, KWSSIP website as well as on project sites.

6.4.1 Structure of Grievance Redress Mechanism

The project will establish a three-tier GRM comprising Community GRC, project GRC; and PIU-GRC. These tiers are described below.

A. Community GRC (Tier-1)

The community-GRC will provide a platform for project affectees or community members to raise and discuss their concerns, resolve the E&S issues at the community level and coordinate with project management to communicate these E&S issues and concerns. Community-GRC will be established to maintain a close rapport and coordination with affected persons and community members throughout the project implementation. The Social Development Specialist (SDS) of PIU will facilitate for the establishment of community-GRC that is representative of the ethno-cultural and gender diversity within the community. The community-GRC will comprise the following six members with one as the committee convener:

- Three female members (from the project affectees or community members); and

- Three male members (from project affectees or community members).

The project E&S and engineering staff will coordinate with community-GRC to review and resolve the E&S issue or concern related to resettlement planning or implementation as well as environmental and social concerns preferably within five (05) working days from receipt of the grievance. Any complaints that cannot be resolved at community-GRC will be forwarded to the next tier.

B. Project GRC (Tier-2)

Project will constitute a GRC headed by concerned Project Manager (PM) to resolve all grievances and complaints of the project affectees or community members. Project GRC will comprise of the following members:

- Project Manager (PM), as head/convener of project GRC;
- Environment, SDS and Gender specialists of PIU;
- E&S specialists of Supervision Consultant (SC)
- Resident Engineer of supervision consultant;
- A representative (E&S specialist) of contractor will act as focal point; and
- A representative of local community.

Representative from any other district government department may be called as and when required by the project GRC. Environmental Specialist of PIU and SC will join project GRC meeting related to environmental issues only.

Project GRC will meet once a month and when the need arises. The project GRC will review grievances involving all E&S issues that may arise due to project implementation. Project GRC will perform following functions:

- Record, categorize and prioritize the grievances that need to be resolved by the committee and resolve them within ten (10) working days;
- Invite and hear aggrieved persons/parties to produce evidence of their claims and record their view point;
- Communicate its decisions and recommendations on all resolved issues to project executors and the aggrieved persons for smooth implementation;
- Forward the unresolved cases/ complaints to PIU-GRC within an appropriate time frame with reasons recorded and its recommendations;
- Develop an information dissemination system and acknowledge the aggrieved persons/parties about the development regarding their grievance;
- Maintain a complaint register accessible to the project affectees or community members with brief information about complaints and project GRC decision with status report; and,
- Maintain complete record of all complaints received by the project GRC with actions taken.

Any complaint that cannot be resolved by the project GRC, will be forwarded to the next tier – the PIU-GRC.

C. PIU-GRC (Tier-3)

At the third tier, the PIU has constituted a GRC (PIU-GRC). The committee has the following composition:

- Project Director KWSSIP, (Chairman of PIU-GRC);
- SDS, Member-Secretary
- Gender Specialist, Member;
- Concerned Project Manager – PIU, Member;
- SDS of SC, Member; and
- Representative of Civil Society.

Representative from any other district government department may be called as and when required by the PIU-GRC. Environmental Specialist of PIU and SC will join PIU-GRC meeting related to environmental issues only.

The PIU-GRC through authorized representative, will acknowledge the complainant about his/her complaint, scrutinize the record, investigate the remedies available and request the complainant to produce any record in favour of his/her claim. After thorough review and scrutiny of the available record on the complaint, field visit will be conducted to collect additional information, if required. Once the investigations are completed, the PIU-GRC will give decision within twenty (20) working days of receipt of the complaint. If the complainant is still dissatisfied with the decision, he/she can go to the court of law, if he/she wishes so. Organization of the GRM is shown in **Figure 6.2.**

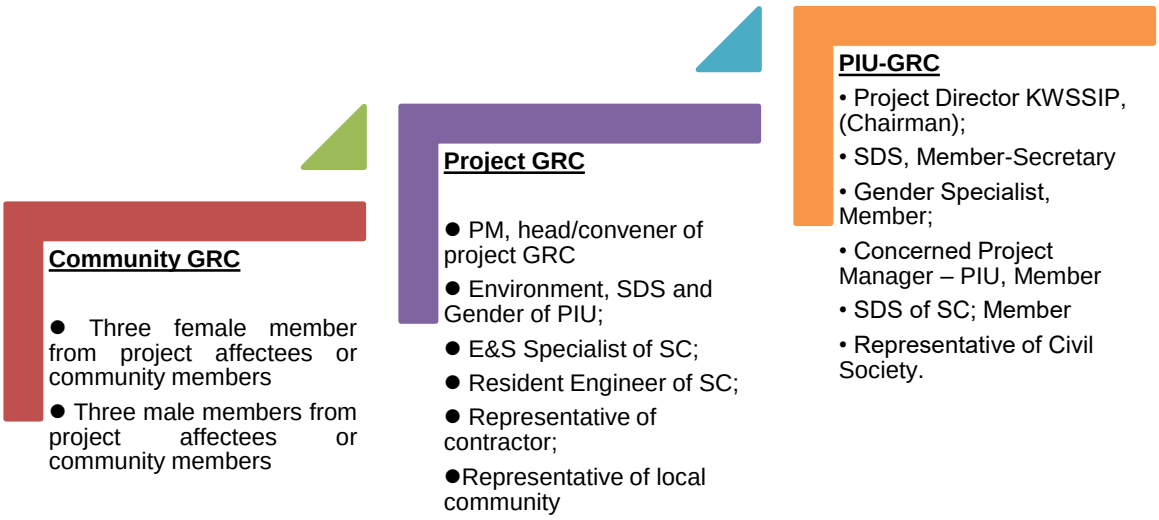


Figure 6.2: Organogram for GRM

Gender representation will be ensured by inducting a female member in all GRCs. The mechanism will ensure the access of project affectees or community members to a GRM that openly and transparently deals with the grievances and makes decision in consultation with all concerned that are consistent with the WB requirements.

D. Gender Based Violence (GBV) Committee

Besides PIU-GRC, GBV committee has also been established and notified consisting of the following members;

- Concerned Project Manager, Head/ Convener of GBV Committee
- Gender Expert KWSSIP, Secretary
- SDS KWSSIP, Member

GBV Committee will address the gender related issues due to project activities during implementation.

6.4.2 Grievance Redress Procedure

The intention of GRM is to resolve a complaint as quickly and at as low a level as possible to avoid a minor issue becoming a significant grievance. Irrespective of the stage of the process, a complainant has the option to pursue the grievance through the court as is his/her legal right in accordance with law.

The GRCs will work at site, project and PIU levels. The E&S and engineering staff of PIU, in coordination with site staff will inform the project affectees and community members about the GRCs and its mechanism through consultations and by posting at prominent places. The complaints received through any media will be screened by type & category and registered in Community Complaints Register (CCR), where the name and address of complainant, date, description of complaint and action taken will be recorded. The Following procedure will be considered to redress the grievances:

- First, complaint resolution will be attempted to be addressed at community-GRC through the involvement of the field E&S/engineering staff. The community-GRC will give decision within 05 working days of receipt of the complaint. If unsettled, grievance can be lodged to the project GRC by the complainant to proceed under law and communicate decision in least possible time.
- Project GRC will acknowledge the receipt within 02 working days of lodging of complaint. Initial review and consultation with the project GRC will be conducted within 05 working days of receipt of complaint. If required, project GRC will advise the E&S/engineering specialists to conduct field visits in consultation with the aggrieved persons/parties and local community and submit a fact-finding report. Preferably, the fact finding will be completed within 08 working days from receipt of complaints. Subproject GRC will give decision within 10 working days of receipt of the complaint. If unresolved, a grievance will be lodged to the (PIU-GRC) by the complainant.
- The PIU-GRC will give decision within 20 working days of receipt of the complaint. If the complainant is still not satisfied, he/she can pursue further by submitting to the appropriate court of law.

All the E&S issues will be dealt according to the above GRM procedures. GRC will clarify the legal course of action and guide aggrieved persons/parties to approach appropriate legal

forum. The GRCs will hear and clarify with the complainant (if required so) about the E&S issue and will conclude and communicate its recommendations for further implementation in due course of time. Complainant will be kept informed during the process and the GRC decision will be communicated accordingly. In case of any delay, the complainants will be informed on the progress and process about their grievances. The GRC proceedings will be documented step by step and all records will be maintained and summarized in the project progress and internal monitoring reports.

6.4.3 Lodging of Complaint

The complainant(s) can lodge their grievances by online, mail, phone, WhatsApp, e-mail and complaint box. Moreover, PIU has established E-Portal for filing and tracking progress of the application online the detail has been provided below:

- An electronic complaint lodging system (application) that will be accessible through a link on the PIU KWSSIP website;
- The focus of the e-portal is the quick complaint lodging for all types of primary stakeholders;
- Any project affectee or community member with internet access can lodge a complaint with option for anonymous complaints. Uploading of photos for better understanding of the problem will also be an option;
- Each complainant will get a unique Grievance Number to track their complaints through the e-portal;
- Each complaint will go through a quick resolution mechanism being managed by a dedicated team at the PIU. Each complainant will be contacted to ensure that his/her issue is resolved;
- The portal will differentiate between types of complaints for targeted decision-making and action on behalf of PIU; and
- The portal will allow a quick and easy method for monitoring of the entire complaint lodging and resolution mechanism.

Direct workers' GRM structure: To mitigate the risks related to direct workers a GRM for Direct Workers will be established. GRM structure for KWSSIP:

- **First level.** The Project Coordinator/Human Resources of PIU-KWSSIP depending on the nature of the issue raised will be responsible to receive, consider and address in a timely manner the grievances, including the concerns on unaccounted working hours and lack of compensation for overtime, delay in/nonpayment of salaries. If the issue cannot be resolved at the first level within 7 working days, then it will be escalated to the next level.

- **Second level.** The Project Director of KWSSIP is a second-level GRM for direct workers if there is a situation in which there is no response from HR or if the response is not satisfactory then complainants and feedback providers have the option to appeal directly to the Project Director to follow up on the issue. The complaints should be considered and feedback provided within the next 7 working days.

Contracted worker's GM structure: To mitigate the risks related to direct workers a GM for Contracted Workers will also be established:

- **Contractor's level.** Contractors should develop their own GRM and resolve the grievances of contracted workers. Grievance Focal Point (GFP) assigned by the Contractor will file the grievances and appeals of contracted workers and will be responsible to facilitate addressing the grievances. If the issue cannot be resolved at the contractor's level within 7 working days, then it will be escalated to the PIU of the KWSSIP local level.
- **Local level.** The Social Specialist of PIU local level in Karachi will serve as Grievance Focal Point (GFP) to file the grievances and appeals of the project workers. He/She will be responsible to coordinate with relevant departments/organizations and persons to facilitate addressing these grievances. If the issue cannot be resolved at the PIU level within 7 working days, then it will be escalated to the Agency level.
- **Central level:** If there is a situation in which there is no response from the PIU Local level, or if the response is not satisfactory then complainants and feedback providers have the option to contact the Project Director of KWSSIP or Focal Person in KWSB Central Office directly to follow up on the issue.

6.5 E&S Budget

6.5.1 Health and Safety Cost

Cost of Health and Safety during the construction phase is worked out in **Table 6.3** below.

Table 6.3: Health and Safety Cost during Construction

Sr. No.	Description	Quantity	Unit	Rate (PKR)	Amount (PKR)
1	Medical screening for workers	30	Persons	5000	150000
2	Tarpaulins	3	L.S.	30,000	90000
3	Handling of hazardous material	12	L.S.	10,000	120000
4	Handling of solid waste	12	L.S.	2,000	24000
5	DCP Fire extinguishers in case of fire	6	Each	3,500	21000
	CO2 Fire extinguishers in case of fire	6	Each	10,000	60000
	Fire alarm	3	Each	10,000	30000
6	Special Measures for Covid-19		L.S.		300000
7	Cost of Personal Protective Equipment (PPE)*		L.S.		708000
		Total Cost			**1,503,000**

Details of PPE cost are given in **Table 6.4** below:

Table 6.4: Break-up of PPEs Cost during the Construction Phase

Item No.	Description	Quantity	Unit	Rate (PKR)	Amount
					PKR
1	Ear plugs	360	Each	100	36,000
2	Helmets	60	Each	1500	90,000
3	Safety shoes	60	Each	3000	180,000
4	Protective goggles	60	Each	2000	120,000
5	Gloves	360	Each	300	108,000
6	Dust Mask	1,440	Each	100	144,000
7	First Aid Kit	6	Each	5000	30,000
				Total	**708,000**

The cost of Health and Safety during the operation phase is worked out in **Table 6.5** below.

Table 6.5: Health and Safety Cost during Operation

Sr. No.	Description	Quantity	Unit	Rate (PKR)	Amount (PKR)
1	Medical screening for workers	10	Persons	5000	50000
4	Handling of solid waste	12	L.S.	2,000	24000
5	DCP Fire extinguishers in case of fire	9	Each	3,500	31500
	CO2 Fire extinguishers in case of fire	9	Each	10,000	90000
	Fire alarm	3	Each	10,000	30000
6	Special Measures for Covid-19		L.S.		30,000
7	Cost of Personal Protective Equipment (PPE)*		L.S.		162,000
		Total Cost			**417,500**

Details of PPE cost are given in **Table 6.6** below:

Table 6.6: Break-up of PPEs Cost during the Operation Phase

Item No.	Description	Quantity	Unit	Rate (PKR)	Amount
					PKR
1	Safety shoes	30	Each	3000	90,000
2	Gloves	60	Each	300	18,000
3	Dust Mask	90	Each	100	9,000
4	First Aid Kit	9	Each	5000	45,000
				Total	**162,000**

6.5.2 Tree Plantation

Following tree plantation plan will be implemented to compensated the affected trees.

Table 6.7: Cost of Tree Plantation

Sr. #	Plants	Quantity	Unit	Rate (PKR)	Amount (PKR)
1	**Shady trees**				
1.1	Kikar	40	Each	600	24,000
1.2	Poplar	40	Each	600	24,000
1.3	Timmer	40	Each	600	24,000
				Sub Total-A	**72,000**
1.3	Transportation charges	_	%	5	3,600
1.4	Mortality	_	%	15	10,800
1.5	Contractors Profit (of total cost)	_	%	20	14,400
				Sub Total-B	**28,800**
2	**Input Requirements**				
2.1	Fertilizer (NPK) (Transportation charges included)	10	Gram	0.20	2
2.2	FYM (Transportation charges included)	2	Kg	7	14
2.3	Pesticide	1	Each	10	10
2.4	Contractors Profit (of total cost)	20	%	_	5
				Sub Total (for 1 tree)	**31**
				Sub Total - C (for total trees)	**3,744**
3	**Development (For 1 Years)**				
3.1	Head Gardner	1	Man-Month	30,000	360,000
3.2	Gardner	1	Man-Month	22,000	264,000
					624,000
3.3	Miscellaneous (Vehicle expenditures, wear & tear of tools etc.)	15	%	_	93,600
3.4	Contractors Profit (of total cost)	20	%	_	124,800
				Sub Total - (D)	**842,400**
				Grand Total (Sub Total A+B+C+D)	**946,944**
				Say	**950,000**

6.5.3 Institutional Strengthening

Following specialists will be require for the effective implementation of E&S requirements of the project.

Table 6.8: Institutional Strengthening

Sr. No.	Description (Position)	Quanitity	Unit	Rate (PKR)	Amout (PKR)
A. Construction Phase - 12 months (for contractor)					
1	Environmental & Social Expert	12	Each	200,000	2,400,000
2	Health & Safety Expert	12	Each	200,000	2,400,000
				Total Cost	**4,800,000**

6.5.4 Summary of Cost

The total estimated cost for the implementation of ESMP is worked out to be **PKR 8,022,525/**. Summary of cost is given in **Table 6.7.**

Table 6.9: Summary of Cost

Sr. No.	Description	Amount (Rs)	
		Construction	**Operation**
1	Tree Plantation	950,000	Nil
2	Health & Safety	1,503,000	417,500
3	Institutional Strengthening	4,800,000	Nil
	Sub-Total	**7,223,000**	**417,500**
	Contingencies @ 5%	361,150	20,875
	Total	**7,584,150**	**438,375**
		Grand Total	**8,022,525**

Annex - I:
Environmental Screening Checklist

Annex – I (A)
Environmental Screening Checklist
STP-I, Haroonabad

Annex – I (A)

ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)				
Subproject location (area/district/site): **STP-I, Haroonabad**				
Subproject scope of work: **Construction of Building**				
Implementing Agency: **PIU - KWSSIP**				
Date of screening: 03.01.2024				
Responsible agency: KW&SC				
Sr. No.	**Screening Criteria**	**Assessment of Impact**	**Explanation**	**Mitigation Measures**
ENVIRONMENT				
1	Will the subproject create significant/limited/no environmental impacts?	Limited	Construction of a new building will create temporary, site-specific, reversible impacts including dust, air pollution, noise, fuel combustion etc.	• Provision of green areas/plantations to absorb the emissions due to project activities. • A plan for reuse of construction waste materials may be formulated. • Confining excavations to the specified spots as per the approved engineering drawings.
2	Is there any likelihood that the impacts are beyond the site boundary, or the impacts occurring during project implementation are beyond the planning area? Are such significant adverse environmental impacts considered irreversible? Please briefly describe:	No	The impacts will be localized in nature and will not cross the boundary of project area. The impacts are perceived to be temporary and reversible in nature.	NA
3	Does the sub-project involve any significant change or degradation to the critical/ non-critical natural habitats?	No	No critical/ non-critical natural habitats are present within and near the project area.	NA
4	Is the subproject in an eco-sensitive area or adjoining an eco-sensitive area or monument? (Yes/No) If Yes, which is the area? Elaborate impact accordingly.	No	No eco-sensitive area is present near the project boundary.	NA
5	Will the proposed project result in significant greenhouse gas emissions?	Limited	Use of heavy vehicles for the transportation of construction materials and construction machinery may lead to greenhouse gas emissions.	• Idling of vehicles will not be allowed • Properly tuned and well-maintained equipment and vehicles will be used

6	Is the proposed project likely to directly or indirectly increase environmental and social vulnerability to climate change now or in the future (also known as maladaptive practices)?	No	The proposed project is not likely to directly or indirectly increase the environmental and social vulnerability to climate change at any stage.	N/A
7	Will the sub-project cause			
	• Clearance of vegetation/ tree-cover/other	No	No trees are envisaged to be cut.	N/A
	• Direct discharge of construction run-off, improper storage and disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes.	No	No groundwater resource is present in and around the project area.	N/A
	• Flooding of adjacent areas.	No	The project activities are not expected to cause flooding in the project area.	N/A
	• Improper storage and handling of substances leading to contamination of soil and water.	Limited	However, no hazardous substances are envisaged to be used for the proposed construction activity. But the mishandling of different materials i.e., cement slurry, paints, and other materials may lead to soil contamination.	• Waste materials and other substances must not be disposed of openly on the land. • All the materials will be handled properly based on the set protocols.
	• Elevated noise and dust emission.	Yes	Construction activities, movement of vehicles, transportation of equipment, construction works etc. shall lead to elevated noise and dust emissions.	• Muffling devices will be used in vehicles and machinery to reduce noise • Transportation of construction materials will be avoided in rush hours • Water sprinkling will be done over to lose soil to control dust emissions.
	• Disruption to traffic and visitor's movements.	No	The project activities will be executed within the premises of KW&SB and hence there will be no effect on traffic and visitors' movement.	N/A

	• Gas emissions	No	No gas emissions are expected from the construction activities.	N/A
	• Other, specify.			
8	Does the subproject involve any prior clearance from the State Forest Department for either the conversion of forest land or for tree-cutting? (Yes/ No). If yes, which?	No	The project area is not the property of state forest land and it does not house any natural or manmade forest.	N/A
CULTURAL HERITAGE				
9	Will the subproject create significant/limited/no cultural properties impacts	No	No cultural properties shall be damaged or the access will not be affected due to project activities.	No
	• Involve significant excavations, demolition, movement of earth, flooding or other major environmental damages.	No	No project activity shall cause demolition and damage to any of the cultural property	N/A
	• Is located within or in the vicinity of a recognized cultural property conservation area or heritage site.	No	No recognized heritage site is available in the project area.	N/A
	• Is designed to support the management or conservation of a cultural property.	No	The project does not support the management and conservation of any cultural property.	N/A
	• Other, specify.			
10	Does the subproject involve any prior clearance from the Archeology Department for either the conservation or management of heritage sites or vicinities? (Yes/ No). If yes, which?	No	No recognized heritage or archeological site is present in the project area.	N/A
HEALTH AND SAFETY				
11	Does the sub-project involve siting sanitation treatment facilities close to human settlements	No	The sub-project does not involve siting sanitation treatment facilities close to human settlements	N/A
12	Would the proposed project be susceptible to or lead to increased vulnerability to	No	The proposed project is not susceptible to or lead to increased vulnerability to	N/A

	earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?		earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions	
13	Would the project cause increase in public health risks to contagious diseases or transmission (e.g., HIV/AIDS, Malaria, etc.) for project workers or communities in the project area, as a result of a change in living and working conditions?	Yes	Improper sanitation conditions and an unhygienic environment in construction camps may arise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria, dengue, and other relevant diseases. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • Sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors • Water stagnation will be avoided
14	Will the proposed project require additional health services?	No	The project activities will be limited in an area and only require basic first aid facilities at the contractors' camps.	N/A
15	Discharge of hazardous material into sewers, resulting in damage to sewer system and danger to workers	No	No hazardous material will be discharged into the sewerage system.	N/A
SOCIAL				
16	Will the subproject create significant/limited/no social impacts?	No	No social impacts are envisaged due to the proposed project activities.	N/A
	• Land acquisition resulting in loss of income from agricultural land, plantation or other existing land.	No	New land shall not be acquired for the proposed project.	N/A
	• Impact on livelihood and economic activity.	No	The project activities will not have an impact on the livelihood	N/A
	• Land acquisition resulting in the relocation of households.	No	No households shall be relocated.	N/A
	• Any reduction of access to traditional dependent communities (to areas where they earn for their primary or substantial livelihood).	No	Access will not be affected as the project site is within the premises of KW&SC facility.	N/A

	• Any displacement or adverse impact on tribal settlement(s).	No	No tribal community is present in the project area.	N/A
	• Adverse impacts to women, including economic and safety concerns.	No	Gender issues are not envisaged due to project activities.	N/A
	• Impact on infrastructure (roads, water supply, any other type of infrastructure)	No	No infrastructure will be damaged due to project activities.	N/A
	• Possible conflicts with and/or disruption to local community and/or visitors.	No	No local community resides in the project area.	N/A
	• Health risks due to unhygienic conditions at workers 'camps.	Yes	Improper sanitation conditions and unhygienic environments in construction camps may raise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria and dengue. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • A sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors
	• Safety hazards during construction.	Yes	Ignorance of safety protocols may lead to worksite accidents.	• Use of PPEs will be ensured. • Emergency evacuation plans will be followed.
	• Other, specify.			
OVERALL ASSESSMENT				
o Subproject is declined				
o Subproject is accepted				The project is accepted.
o Subproject is classified as environmental Category A and requires an in-depth Environmental and Social Impact Assessment.				
o Subproject is classified as environmental Category B and requires an Environmental and Social Management Plan.				
o Subproject is classified as environmental Category C and does not require any further studies.				The subproject is categorized as **Category C** project and does not require further studies.

Annex – I (B)
Environmental Screening Checklist
STP-I, Haroonabad

Annex – I (B)

ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)				
Subproject location (area/district/site): **Sakhi Hassan Pump House, Gulberg**				
Subproject scope of work: **Construction of Building**				
Implementing Agency: **PIU - KWSSIP**				
Date of screening: 03.01.2024				
Responsible agency: KW&SC				
Sr. No.	**Screening Criteria**	**Assessment of Impact**	**Explanation**	**Mitigation Measures**
ENVIRONMENT				
1	Will the subproject create significant/limited/no environmental impacts?	Limited	Construction of a new building will create temporary, site-specific, reversible impacts including dust, air pollution, noise, fuel combustion etc.	• Provision of green areas/plantations to absorb the emissions due to project activities. • A plan for reuse of construction waste materials may be formulated. • Confining excavations to the specified spots as per the approved engineering drawings.
2	Is there any likelihood that the impacts are beyond the site boundary, or the impacts occurring during project implementation are beyond the planning area? Are such significant adverse environmental impacts considered irreversible? Please briefly describe:	No	The impacts will be localized in nature and will not cross the boundary of project area. The impacts are perceived to be temporary and reversible in nature.	NA
3	Does the sub-project involve any significant change or degradation to the critical/ non-critical natural habitats?	No	No critical/ non-critical natural habitats are present within and near the project area.	NA
4	Is the subproject in an eco-sensitive area or adjoining an eco-sensitive area or monument? (Yes/No) If Yes, which is the area? Elaborate impact accordingly.	No	No eco-sensitive area is present near the project boundary.	NA
5	Will the proposed project result in significant greenhouse gas emissions?	Limited	Use of heavy vehicles for the transportation of construction materials and construction machinery may lead to greenhouse gas emissions.	• Idling of vehicles will not be allowed • Properly tuned and well-maintained equipment and vehicles will be used

6	Is the proposed project likely to directly or indirectly increase environmental and social vulnerability to climate change now or in the future (also known as maladaptive practices)?	No	The proposed project is not likely to directly or indirectly increase the environmental and social vulnerability to climate change at any stage.	N/A
7	Will the sub-project cause			
	• Clearance of vegetation/ tree-cover/other	No	A few trees are envisaged to be cut.	• Compensatory plantation of trees in place of every single tree that would be cut.
	• Direct discharge of construction run-off, improper storage and disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes.	No	No groundwater resource is present in and around the project area.	N/A
	• Flooding of adjacent areas.	No	The project activities are not expected to cause flooding in the project area.	N/A
	• Improper storage and handling of substances leading to contamination of soil and water.	Limited	However, no hazardous substances are envisaged to be used for the proposed construction activity. But the mishandling of different materials i.e., cement slurry, paints, and other materials may lead to soil contamination.	• Waste materials and other substances must not be disposed of openly on the land. • All the materials will be handled properly based on the set protocols.
	• Elevated noise and dust emission.	Yes	Construction activities, movement of vehicles, transportation of equipment, construction works etc. shall lead to elevated noise and dust emissions.	• Muffling devices will be used in vehicles and machinery to reduce noise • Transportation of construction materials will be avoided in rush hours • Water sprinkling will be done over to lose soil to control dust emissions.
	• Disruption to traffic and visitor's movements.	No	The project activities will be executed within the premises of KW&SB and hence there will be no effect on traffic and visitors' movement.	N/A

	• Gas emissions	No	No gas emissions are expected from the construction activities.	N/A
	• Other, specify.			
8	Does the subproject involve any prior clearance from the State Forest Department for either the conversion of forest land or for tree-cutting? (Yes/ No). If yes, which?	No	The project area is not the property of state forest land and it does not house any natural or manmade forest.	N/A
CULTURAL HERITAGE				
9	Will the subproject create significant/limited/no cultural properties impacts	No	No cultural properties shall be damaged or the access will not be affected due to project activities.	No
	• Involve significant excavations, demolition, movement of earth, flooding or other major environmental damages.	No	No project activity shall cause demolition and damage to any of the cultural property	N/A
	• Is located within or in the vicinity of a recognized cultural property conservation area or heritage site.	No	No recognized heritage site is available in the project area.	N/A
	• Is designed to support the management or conservation of a cultural property.	No	The project does not support the management and conservation of any cultural property.	N/A
	• Other, specify.			
10	Does the subproject involve any prior clearance from the Archeology Department for either the conservation or management of heritage sites or vicinities? (Yes/ No). If yes, which?	No	No recognized heritage or archeological site is present in the project area.	N/A
HEALTH AND SAFETY				
11	Does the sub-project involve siting sanitation treatment facilities close to human settlements	No	The sub-project does not involve siting sanitation treatment facilities close to human settlements	N/A
12	Would the proposed project be susceptible to or lead to increased vulnerability to	No	The proposed project is not susceptible to or lead to increased vulnerability to	N/A

	earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?		earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions	
13	Would the project cause increase in public health risks to contagious diseases or transmission (e.g., HIV/AIDS, Malaria, etc.) for project workers or communities in the project area, as a result of a change in living and working conditions?	Yes	Improper sanitation conditions and an unhygienic environment in construction camps may arise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria, dengue, and other relevant diseases. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • Sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors • Water stagnation will be avoided
14	Will the proposed project require additional health services?	No	The project activities will be limited in an area and only require basic first aid facilities at the contractors' camps.	N/A
15	Discharge of hazardous material into sewers, resulting in damage to sewer system and danger to workers	No	No hazardous material will be discharged into the sewerage system.	N/A
SOCIAL				
16	Will the subproject create significant/limited/no social impacts?	No	No social impacts are envisaged due to the proposed project activities.	N/A
	• Land acquisition resulting in loss of income from agricultural land, plantation or other existing land.	No	New land shall not be acquired for the proposed project.	N/A
	• Impact on livelihood and economic activity.	No	The project activities will not have an impact on the livelihood	N/A
	• Land acquisition resulting in the relocation of households.	No	No households shall be relocated.	N/A
	• Any reduction of access to traditional dependent communities (to areas where they earn for their primary or substantial livelihood).	No	Access will not be affected as the project site is within the premises of KW&SC facility.	N/A

	• Any displacement or adverse impact on tribal settlement(s).	No	No tribal community is present in the project area.	N/A
	• Adverse impacts to women, including economic and safety concerns.	No	Gender issues are not envisaged due to project activities.	N/A
	• Impact on infrastructure (roads, water supply, any other type of infrastructure)	No	No infrastructure will be damaged due to project activities.	N/A
	• Possible conflicts with and/or disruption to local community and/or visitors.	No	No local community resides in the project area.	N/A
	• Health risks due to unhygienic conditions at workers 'camps.	Yes	Improper sanitation conditions and unhygienic environments in construction camps may raise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria and dengue. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • A sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors
	• Safety hazards during construction.	Yes	Ignorance of safety protocols may lead to worksite accidents.	• Use of PPEs will be ensured. • Emergency evacuation plans will be followed.
	• Other, specify.			
OVERALL ASSESSMENT				
o Subproject is declined				
o Subproject is accepted				The project is accepted.
o Subproject is classified as environmental Category A and requires an in-depth Environmental and Social Impact Assessment.				
o Subproject is classified as environmental Category B and requires an Environmental and Social Management Plan.				
o Subproject is classified as environmental Category C and does not require any further studies.				The subproject is categorized as **Category C** project and does not require further studies.

Annex – I (C)
Environmental Screening Checklist
LSR, Gulshan e Iqbal

Annex – I (C)

ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)				
Subproject location (area/district/site): **STP-I, Haroonabad**				
Subproject scope of work: **Construction of Building**				
Implementing Agency: **PIU - KWSSIP**				
Date of screening: 03.01.2024				
Responsible agency: KW&SC				
Sr. No.	**Screening Criteria**	**Assessment of Impact**	**Explanation**	**Mitigation Measures**
ENVIRONMENT				
1	Will the subproject create significant/limited/no environmental impacts?	Limited	Construction of a new building will create temporary, site-specific, reversible impacts including dust, air pollution, noise, fuel combustion etc.	• Provision of green areas/plantations to absorb the emissions due to project activities. • A plan for reuse of construction waste materials may be formulated. • Confining excavations to the specified spots as per the approved engineering drawings.
2	Is there any likelihood that the impacts are beyond the site boundary, or the impacts occurring during project implementation are beyond the planning area? Are such significant adverse environmental impacts considered irreversible? Please briefly describe:	No	The impacts will be localized in nature and will not cross the boundary of project area. The impacts are perceived to be temporary and reversible in nature.	NA
3	Does the sub-project involve any significant change or degradation to the critical/ non-critical natural habitats?	No	No critical/ non-critical natural habitats are present within and near the project area.	NA
4	Is the subproject in an eco-sensitive area or adjoining an eco-sensitive area or monument? (Yes/No) If Yes, which is the area? Elaborate impact accordingly.	No	No eco-sensitive area is present near the project boundary.	NA
5	Will the proposed project result in significant greenhouse gas emissions?	Limited	Use of heavy vehicles for the transportation of construction materials and construction machinery	• Idling of vehicles will not be allowed

			may lead to greenhouse gas emissions.	• Properly tuned and well-maintained equipment and vehicles will be used
6	Is the proposed project likely to directly or indirectly increase environmental and social vulnerability to climate change now or in the future (also known as maladaptive practices)?	No	The proposed project is not likely to directly or indirectly increase the environmental and social vulnerability to climate change at any stage.	N/A
7	Will the sub-project cause			
	• Clearance of vegetation/ tree-cover/other	No	No trees are envisaged to be cut.	N/A
	• Direct discharge of construction run-off, improper storage and disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes.	No	No groundwater resource is present in and around the project area.	N/A
	• Flooding of adjacent areas.	No	The project activities are not expected to cause flooding in the project area.	N/A
	• Improper storage and handling of substances leading to contamination of soil and water.	Limited	However, no hazardous substances are envisaged to be used for the proposed construction activity. But the mishandling of different materials i.e., cement slurry, paints, and other materials may lead to soil contamination.	• Waste materials and other substances must not be disposed of openly on the land. • All the materials will be handled properly based on the set protocols.
	• Elevated noise and dust emission.	Yes	Construction activities, movement of vehicles, transportation of equipment, construction works etc. shall lead to elevated noise and dust emissions.	• Muffling devices will be used in vehicles and machinery to reduce noise • Transportation of construction materials will be avoided in rush hours • Water sprinkling will be done over to lose soil to control dust emissions.

	• Disruption to traffic and visitor's movements.	No	The project activities will be executed within the premises of KW&SB and hence there will be no effect on traffic and visitors' movement.	N/A
	• Gas emissions	No	No gas emissions are expected from the construction activities.	N/A
	• Other, specify.			
8	Does the subproject involve any prior clearance from the State Forest Department for either the conversion of forest land or for tree-cutting? (Yes/ No). If yes, which?	No	The project area is not the property of state forest land and it does not house any natural or manmade forest.	N/A
CULTURAL HERITAGE				
9	Will the subproject create significant/limited/no cultural properties impacts	No	No cultural properties shall be damaged or the access will not be affected due to project activities.	No
	• Involve significant excavations, demolition, movement of earth, flooding or other major environmental damages.	No	No project activity shall cause demolition and damage to any of the cultural property	N/A
	• Is located within or in the vicinity of a recognized cultural property conservation area or heritage site.	No	No recognized heritage site is available in the project area.	N/A
	• Is designed to support the management or conservation of a cultural property.	No	The project does not support the management and conservation of any cultural property.	N/A
	• Other, specify.			
10	Does the subproject involve any prior clearance from the Archeology Department for either the conservation or management of heritage sites or vicinities? (Yes/ No).	No	No recognized heritage or archeological site is present in the project area.	N/A

	If yes, which?			
HEALTH AND SAFETY				
11	Does the sub-project involve siting sanitation treatment facilities close to human settlements	No	The sub-project does not involve siting sanitation treatment facilities close to human settlements	N/A
12	Would the proposed project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No	The proposed project is not susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions	N/A
13	Would the project cause increase in public health risks to contagious diseases or transmission (e.g., HIV/AIDS, Malaria, etc.) for project workers or communities in the project area, as a result of a change in living and working conditions?	Yes	Improper sanitation conditions and an unhygienic environment in construction camps may arise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria, dengue, and other relevant diseases. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • Sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors • Water stagnation will be avoided
14	Will the proposed project require additional health services?	No	The project activities will be limited in an area and only require basic first aid facilities at the contractors' camps.	N/A
15	Discharge of hazardous material into sewers, resulting in damage to sewer system and danger to workers	No	No hazardous material will be discharged into the sewerage system.	N/A
SOCIAL				
16	Will the subproject create significant/limited/no social impacts?	No	No social impacts are envisaged due to the proposed project activities.	N/A
	• Land acquisition resulting in loss of income from agricultural land,	No	New land shall not be acquired for the proposed project.	N/A

	plantation or other existing land.			
	• Impact on livelihood and economic activity.	No	The project activities will not have an impact on the livelihood	N/A
	• Land acquisition resulting in the relocation of households.	No	No households shall be relocated.	N/A
	• Any reduction of access to traditional dependent communities (to areas where they earn for their primary or substantial livelihood).	No	Access will not be affected as the project site is within the premises of KW&SC facility.	N/A
	• Any displacement or adverse impact on tribal settlement(s).	No	No tribal community is present in the project area.	N/A
	• Adverse impacts to women, including economic and safety concerns.	No	Gender issues are not envisaged due to project activities.	N/A
	• Impact on infrastructure (roads, water supply, any other type of infrastructure)	No	No infrastructure will be damaged due to project activities.	N/A
	• Possible conflicts with and/or disruption to local community and/or visitors.	No	No local community resides in the project area.	N/A
	• Health risks due to unhygienic conditions at workers 'camps.	Yes	Improper sanitation conditions and unhygienic environments in construction camps may raise health risks. Wastes and unhealthy conditions may attract vectors and mosquitos and can result in the spread of malaria and dengue. Ignorance of the government's SOPs for control of COVID-19 may lead to its spread.	• COVID-19 SOPs will be strictly followed • A sanitation plan will be devised and implemented to ensure cleanliness • Waste products will not be dumped openly to avoid the attraction of mosquitoes and disease vectors

	• Safety hazards during construction.	Yes	Ignorance of safety protocols may lead to worksite accidents.	• Use of PPEs will be ensured. • Emergency evacuation plans will be followed.
	• Other, specify.			
OVERALL ASSESSMENT				
o Subproject is declined				
o Subproject is accepted				The project is accepted.
o Subproject is classified as environmental Category A and requires an in-depth Environmental and Social Impact Assessment.				
o Subproject is classified as environmental Category B and requires an Environmental and Social Management Plan.				
o Subproject is classified as environmental Category C and does not require any further studies.				The subproject is categorized as **Category C** project and does not require further studies.

Annex - II:
Social Screening Checklist

Annex – II (A)
Social Screening Checklist
STP-I Haroonabad

Annex – II (A)

Karachi Water and Sewerage Services Improvement Project (KWSSIP)

Social Screening & Categorization Form (SSCF)

1. Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)

2. Sub-Project Area: Construction of Customer Service Center at STP-I Haroonabad

3. Project Scope of Work (list the major interventions): The project involves construction of a building.

4. Project Location /Administrative Boundary: Karachi

5. Will any land acquisition be required for the proposed project activity?

YES_____ NO__✓

If YES, please provide the following information:

_____
_____

(i) Is the site known? YES ___ NO _____

If YES, please provide the details:

_____
_____

(ii) Is ownership status and current usage of land to be acquired known?

YES ___NO _____

If YES, please provide details

_____
_____

(iii) Will the existing Right of Way be used for the project works?

YES ____ NO____

If YES, please provide details:

_____

(iv) Please state the type of losses expected due to the project development:

Loss of shelter and residential land?	Yes ___	No ✓
Loss of Agricultural and other productive assets?	Yes ___	No ✓
Losses of crops, trees and fixed assets?	Yes ___	No ✓
Loss of Livelihood	Yes ___	No ✓

Loss of sources of income and means of livelihood?	Yes__	No ✓

Please provide details based on the responses provided above.

6. Will the proposed project activity require dislocation of people?

YES ___ NO ✓

If YES, please mention the estimated number of people to be displaced and provide details

of whether they are poor, female headed households or vulnerable to poverty risks?

7. Will the project activity cause the people to lose or restrict access to natural resources or communal facilities?

YES _____ NO ✓

If YES, please provide details

_____

_____

8. Will access to land and resources owned communally or by the state be restricted?

YES _____ NO ✓

9. Is the sub-project area being affected by the Anti-Encroachment Drive in Karachi?

YES _____ NO ✓

10. Will any indigenous people be impacted by the project activity?

YES ___ NO ✓

11. Any estimate of the likely number of persons that will be affected by the Project?

Yes ✓____ No___

If yes, approximately how many? 0

Project Category Recommendation

It is recommended that based on the available project information and subsequent analysis, the project should be placed in (please tick one):

Category 'A' _____ Category 'B'___ Category 'C' _✓

No PAPs

Annex – II (B)
Social Screening Checklist
Sakhi Hassan Pump House, Gulberg

Annex – II (B)

Karachi Water and Sewerage Services Improvement Project (KWSSIP)

Social Screening & Categorization Form (SSCF)

12. Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)

13. Sub-Project Area: Construction of Customer Service Center at Sakhi Hassan Pump House, Gulberg

14. Project Scope of Work (list the major interventions): The project involves construction of a building.

15. Project Location /Administrative Boundary: Karachi

16. Will any land acquisition be required for the proposed project activity?

YES_____ NO__✓

If YES, please provide the following information:

_____
_____

(v) Is the site known? YES ___ NO _____

If YES, please provide the details:

_____
_____

(vi) Is ownership status and current usage of land to be acquired known?

YES ___NO _____

If YES, please provide details

_____
_____

(vii) Will the existing Right of Way be used for the project works?

YES ____ NO____

If YES, please provide details:

_____

(viii) Please state the type of losses expected due to the project development:

Loss of shelter and residential land?	Yes ___	No ✓
Loss of Agricultural and other productive assets?	Yes ___	No ✓
Losses of crops, trees and fixed assets?	Yes ✓	No _

Loss of Livelihood	Yes ___	No ✓
Loss of sources of income and means of livelihood?	Yes__	No ✓

Please provide details based on the responses provided above.

17. Will the proposed project activity require dislocation of people?

YES ___ NO ✓

If YES, please mention the estimated number of people to be displaced and provide details

of whether they are poor, female headed households or vulnerable to poverty risks?

18. Will the project activity cause the people to lose or restrict access to natural resources or communal facilities?

YES _____ NO ✓

If YES, please provide details

_____

_____

19. Will access to land and resources owned communally or by the state be restricted?

YES _____ NO ✓

20. Is the sub-project area being affected by the Anti-Encroachment Drive in Karachi?

YES _____ NO ✓

21. Will any indigenous people be impacted by the project activity?

YES ___ NO ✓

22. Any estimate of the likely number of persons that will be affected by the Project?

Yes ✓____ No___

If yes, approximately how many? 0

Project Category Recommendation

It is recommended that based on the available project information and subsequent analysis, the project should be placed in (please tick one):

Category 'A' _____ Category 'B'___ Category 'C' _✓

No PAPs

Annex – II (C)
Social Screening Checklist
LSR, Gulshan e Iqbal

Karachi Water and Sewerage Services Improvement Project (KWSSIP)

Social Screening & Categorization Form (SSCF)

23. Project Name: Karachi Water and Sewerage Services Improvement Project (KWSSIP)

24. Sub-Project Area: Construction of Customer Service Center at Sakhi Hassan Pump House, Gulberg

25. Project Scope of Work (list the major interventions): The project involves construction of a building.

26. Project Location /Administrative Boundary: Karachi

27. Will any land acquisition be required for the proposed project activity?

YES_____ NO__✓

If YES, please provide the following information:

_____
_____

(ix) Is the site known? YES ___ NO _____

If YES, please provide the details:

_____
_____

(x) Is ownership status and current usage of land to be acquired known?

YES ___NO _____

If YES, please provide details

_____
_____

(xi) Will the existing Right of Way be used for the project works?

YES ____ NO____

If YES, please provide details:

_____

(xii) Please state the type of losses expected due to the project development:

Loss of shelter and residential land?	Yes ___	No ✓
Loss of Agricultural and other productive assets?	Yes ___	No ✓
Losses of crops, trees and fixed assets?	Yes ✓	No _
Loss of Livelihood	Yes ___	No ✓
Loss of sources of income and means of livelihood?	Yes__	No ✓

Please provide details based on the responses provided above.

28. Will the proposed project activity require dislocation of people?

YES ___ NO ✓

If YES, please mention the estimated number of people to be displaced and provide details of whether they are poor, female headed households or vulnerable to poverty risks?

29. Will the project activity cause the people to lose or restrict access to natural resources or communal facilities?

YES _____ NO ✓

If YES, please provide details

_____

_____

30. Will access to land and resources owned communally or by the state be restricted?

YES _____ NO ✓

31. Is the sub-project area being affected by the Anti-Encroachment Drive in Karachi?

YES _____ NO ✓

32. Will any indigenous people be impacted by the project activity?

YES ___ NO ✓

33. Any estimate of the likely number of persons that will be affected by the Project?

Yes ✓____ No___

If yes, approximately how many? 0

Project Category Recommendation

It is recommended that based on the available project information and subsequent analysis, the project should be placed in (please tick one):

Category 'A' _____ Category 'B'___ Category 'C' _✓

No PAPs

Annex - III:

Health and Safety Management Plan

Health & Safety Management Plan (HSMP)

1.0 Introduction

This health and safety management plan has been prepared to identify and outline the manner in which construction site health and safety aspects will be managed to ensure the safe and efficient performance of the construction phase activities and to minimize adverse effects on the existing community and workers arising from construction activities. HSMP plan is prepared under the guidelines given in Health and Safety Framework for South Asia Region by the World Bank.

This plan is designed to identify, evaluate, and control health and safety hazards for the purpose of protecting employees. The plan provides for emergency response activities at the job site as well as covering site hazard analysis, training requirements, engineering controls, materials handling, and safe construction operations. This plan is intended to provide guidance and information in dealing with the hazards that may be faced on the construction site by the contractor and its workers.

The consultant as a third-party validator will monitor the compliance of the plan by the contractor and its workers on each construction site.

The purpose of this plan is to illustrate safety issues specific to the KWSSIP. This plan is intended to maintain a safe work environment and effectively reduce the number of accidents resulting in personal injury, property damage, and damage to construction equipment.

2.0 Scope of Project

2.1 Scope of Work

KWSB has conceived KWSSIP in the form of a series of projects (SOPs), which form a long-term program to address the serious water and sewerage service gaps in the rapidly growing city of Karachi.

This HSMP focuses on the health issues associated with the construction of Customer Service Centers (CSCs).

2.2 Site Location

The CSCs will be built at the following scattered locations in the city to facilitate the customers:

- Sewage Treatment Plant-I (STP-I) at Haroonabad
- Sakhi Hassan Pump House, Gulberg Town
- LSR adjacent to DC East Office, Gulshan-e-Iqbal
- CERRI Building at 9th Mile Karsaz Shahrah e Faisal (separate ESMP prepared)

3.0 Health and Safety Responsibilities

The effectiveness and success of the safety plan implementation depend upon the active participation and cooperation of all employees. The duties and responsibilities of all employees under this policy are the following:

3.1 Project Engineer

- Prepare the Site-Specific Safety Plan.
- Direct and coordinate health and safety regulations related to the construction site.
- Participate in post-accident investigations.
- Assist in formulating policy matters.
- Implement contractor Safety Program and Policy

3.2 Foremen/Supervisors

- Be familiar with, explain, and enforce health and safety plan under his jurisdiction.
- Direct and coordinate health and safety activities within the area or responsibility
- Ensure safety devices and proper PPE are used by employees under supervision.
- Instruct and train all employees within the area of responsibility in job health and safety requirements, including (but, not limited to) hazard recognition and avoidance. Also, foreman/front-line supervisors must require compliance by employees with the established safety rules.
- Direct the correction of unsafe conditions.
- Ensure safety equipment is available, maintained, used, and stored correctly.
- Ensure injuries are treated promptly and reported properly.
- Participate in post-accident investigations.
- Coordinate daily job site inspection.
- Implement health and safety plan at each site as per required.

3.3 Construction Workers

The main responsibility of every worker at the construction site will be to follow the health and safety instructions and procedures.

- Be familiar with and comply with proper health and safety practices.
- Use the required safety devices and proper PPE.
- Notify the supervisor immediately of unsafe conditions/- acts, accidents, and injuries.
- Implement the health and safety plan

3.4 Subcontractors

By the contract, the subcontractors will have to comply with and ensure the compliance of their employees with the provisions of health and safety policy as well as their own safety program.

Failure to fulfill this requirement is a failure to meet the conditions of the subcontract.

3.5 Supervision Consultant (SC)

SC will validate the effective implementation of the health and safety plan at the site. PIU-KWSSIP will be overall responsible for the safe construction work at each site.

4.0 General Health and Safety Procedures

4.1 Personal Protective Equipment (PPE)

The contractor provides Personal Protective Equipment (PPE) to all employees. Hard hats, safety glasses, and safety work boots are required to be worn at all times when on the job site. Reflective vests are required when working outside around equipment or traffic. Exceptions may be made to this PPE requirement only under an approved contractor work plan. Employees learn where to get PPE during their new-hire orientation and are responsible for wearing and maintaining the required PPE. Additional PPE may be required depending on the task and if there is a potential for exposure to hazardous conditions. PPE requirements are reviewed by the foreman. Employees are expected to use reasonable judgment regarding whether additional PPE (beyond the required) is necessary for certain tasks. If employees are unsure of the type of PPE required for a specific task or job, they should ask the supervisor.

4.2 Equipment Use and Operation

Equipment is used only for its intended use and as recommended by the manufacturer. Using equipment for purposes other than what it is designed for is prohibited. Employees are prohibited from operating a vehicle in a reckless manner or at a speed greater than is reasonable and proper, with due regard for weather, traffic, the character of roadway, load, type of vehicle, and any other conditions which may affect the safe operation of the vehicle. The vehicle must be kept under control at all times and special care is exercised when transporting personnel.

Employees may only ride equipment if there are seats or equal protection available for each person. Seatbelts are worn at all times while operating equipment with seats. No cell phone or earbud is used while operating equipment.

4.3 Repair

Employees are prohibited from making repairs, alterations, or attachments to equipment in the field except with the permission of the superintendent, foreman, or equipment mechanic. Only qualified personnel will perform repairs on equipment. Such repairs, alterations, or attachments are documented on the appropriate shop forms.

Employees are prohibited from removing a guard, safety device, or appliance from equipment or machinery except to make repairs. While making repairs, employees use appropriate lockout/tag-

out procedures. When repairs are complete, the guard, safety device, or appliance is replaced immediately.

4.4 Conduct

The following conduct is prohibited and may result in discipline up to and including termination:

- Horseplay and scuffling on the job.
- Making a false report or misrepresentation.
- Fighting.
- Use of alcohol or any other drugs
- Dishonesty and theft of the property.
- Deliberate misuse of the equipment.
- Unnecessary risk-taking.
- Violating or disobeying any instruction given by a supervisor

5.0 General Jobsite Procedures

5.1 New Hire Orientation

New-hire orientation may consist of, but is not limited to, the following:

- Have the employee read the health and safety plan and other safety requirements, guidelines etc. Answer any questions the new hire may have about these policies and request a signature on the Statement of Understanding.
- Orient the employee to the job site indicating the location of the emergency facilities, portable fire extinguishers, first-aid station, emergency phone numbers, public notices, and any job site-specific information.
- Explain the injury and accident policy.
- Review the written hazard communication program. Discuss hazards, container labeling, and the use of protective equipment.
- Explain the emergency response plan for catastrophic events such as fire, explosion, etc.
- Issue PPE as required for the job

5.2 Training

Training and education are necessary for the success of this policy. Employees are trained to recognize job site hazards and the procedures to follow to minimize these hazards. Training may consist of (but is not limited to) the following:

- Weekly job site safety meetings.
- Orientation training for new hires.
- Individual job/task training, including the applicable regulations/standards for the specific job/task.

Supervisors and management receive ongoing safety training throughout the year.

5.3 Safety Meetings

Weekly safety meetings are held on the job site. All employees and subcontractors are required to attend. The meetings may cover a range of safety-related topics. The format and content of the meetings are up to the discretion of the superintendent. Monthly safety meetings are held for all foremen, superintendents, project managers, project engineers, contractors, and other management personnel. These meetings are for the purpose of discussing companywide safety issues and providing continued safety training and education.

5.4 Safety Inspections

The superintendent and foreman conduct an initial safety inspection at the beginning of each project. In addition, a daily safety inspection of the job site is conducted by the contractor employees, employees of a subcontractor, or some combination thereof. The inspection is rotated between all workers on the job site. Any safety concern found during the inspection is reported. If a worker is unclear about any safety aspect, the foreman or project Engineer helps. If the area being inspected requires a *competent person*, the employee conducts the inspection with the competent person. Also, if time allows, the foreman for the worker conducting the inspection is encouraged to walk through it with them.

5.5 Hazard Communication

The contractor needs to develop a written hazard communication plan. It will be explained to each employee during the new-hire orientation. The purpose of the hazard communication plan is to provide employees with information on the chemical and physical hazards that may be present at the job site. Safety Data Sheets for all chemicals will be kept on site.

5.6 Job Hazard Analysis

A job hazard analysis may be developed covering the major activities of construction, the hazards associated with these activities, and ways to mitigate these hazards.

5.7 Housekeeping

Housekeeping is one of the most important factors for a safe job site. Form material should be scraped and all protruding nails pounded down. All other debris is cleared from work areas, passageways, and stairs. Excess materials are stacked neatly out of the way. Tools should be stored in the toolbox so these are available for all employees to use.

Combustible scrap and debris are removed at regular intervals during the course of construction. Containers with covers are provided for the collection and separation of waste, trash, oily and used rags, and other such refuse, which is removed safely and on a regular basis.

Foreign object and debris (FOD) is a significant concern in nearby occupied spaces and construction areas. It is extremely important to keep all trash and debris contained at this site. Housekeeping will be strictly enforced

5.8 Fall Protection

The contractor provides fall protection when employees are exposed to fall hazards.

Fall protection may consist of, but is not limited to, the following:

- A stairway or ladder is provided at any point of access where there is a break in elevation of 19 inches or more.
- Guardrails are installed for all leading-edge work. For loading bay locations fall-arrest systems or fall-restraint systems are used.
- Safety harnesses with approved lanyards and tie-off points are used for all other fall protection unless an appropriate procedure or device was approved in advance by a competent person.
- Stilts may be used on job sites but work area floors must be clean/clear of all debris, materials, and equipment.

5.9 Electrical Safety

Electrical safety may consist of, but is not limited to, the following:

- Live electrical parts are guarded against accidental contact by cabinets, enclosure, location, or guarding.
- Extension cords are kept in safe, working condition.
- All lamps for general illumination have the bulbs protected against breakage. All light sockets are filled with a working bulb.
- Employees will not work in such close (able to contact) proximity to any part of an electric power circuit unless the circuit is de-energized, grounded, or guarded by insulation.
- De-energized equipment or circuits are locked out and tagged out. The tags identify the equipment or circuits being worked on.
- All generators used for temporary power shall be grounded according to manufacturers' specifications.
- Equipment shall not be operated closer than 10 feet from power lines less than 50kV. Safe distance will increase near higher voltage power lines, (over 50kV)

5.10 Tools

The contractor provides tools for employees to use. Only trained employees are allowed to use such tools. The safe use of tools may consist of, but is not limited to the following:

- Unsafe or defective tools are removed from service and tagged out.
- Power tools are turned off and motion stopped before setting down.
- Tools are disconnected from the power source before changing drills, blades, or bits and before any repair or adjustment is made. Running tools are not left unattended.
- Portable abrasive grinders have guards installed covering the upper and back portions of the abrasive wheel.

5.11 Scaffolds

Scaffolds are erected, moved, dismantled, or altered under the supervision of a competent person for scaffolding. Scaffold use consists of, but is not limited to, the following procedures:

- Standard guardrails are installed on all open sides and ends of scaffold platforms and/or work levels more than ten feet below the ground.
- Scaffolds four to ten feet in height with a minimum horizontal dimension in any direction less than 45 inches have standard railings installed on all open sides/ends.
- Platforms at all working levels are fully planked. Planking is laid tight with no more than one inch space between them, overlap at least 12 inches, and extends over end supports 6-12 inches unless cleats are used.
- The front edge of all platforms is no more than 14 inches from the face of the work, except plastering/lathing may be 18 inches.
- Mobile scaffolds are erected no more than a maximum height of four times their minimum base dimension.
- Scaffold casters/wheels are locked whenever the platform is occupied.
- Scaffolds are not overloaded beyond their design loadings.
- Scaffold components are not used as tie-off/anchor points for fall-protection devices.
- Portable ladders, hook-on ladders, attachable ladders, integral prefabricated scaffold frames, walkways, or direct access from another scaffold or structure are used for access when platforms are more than two feet above or below a point of access.
- Cross braces are not used as a means of access to scaffolds.
- Scaffolds are not erected, used, dismantled, altered, or moved such that they or any conductive material handled on them might come close to exposed and energized power lines than the following:
    - Three feet from insulated lines of less than 300 volts;
    - Ten feet plus for any other insulated or uninsulated Lines

5.12 Excavation and Trenches

Excavation and trenching are done in the presence of a competent person and in compliance with, but not limited to, the following procedures:

- Any excavation or trench five feet or more in-depth is provided cave-in protection through shoring, sloping, benching, or the use of hydraulic shoring, trench shields, or trench boxes. Trenches less than five feet in depth and showing potential of cave-in are also provided cave-in protection. Specific requirements of each system are dependent upon the soil classification as determined by a competent person.
- A competent person inspects each excavation/trench daily prior to the start of work, after every rainstorm or other hazard-increasing occurrence, and as needed throughout the shift.
- Any material and equipment are kept at least two feet from the edge of the trench or excavation.

5.13 Ladders

Ladders are inspected during the weekly inspections to identify any unsafe conditions. Any ladders found to be unsafe are taken out of service. Extension ladders extend three feet above the work surface and are 100 percent tied off. Step ladders are only used in the open position. Ladders are stored lying down. No standing on the top step or first rung below the top of a step ladder.

5.14 Illumination

Construction areas and storage areas where work is in progress are lighted with either natural or artificial illumination.

5.15 Motor Vehicles and Mechanized Equipment

Vehicles and equipment are only operated by qualified persons (training or experience). All equipment operators are responsible for checking, on a daily basis, all fluid levels, drive components, and hydraulics. In addition, operators visually inspect the engine and look for structural breaks and cracks on the machine. Any and all deficiencies must be reported to a supervisor immediately.

When equipment is stopped or parked, parking brakes are set and other safety precautions are taken as required for the type of equipment such as placing the forks flat on the ground. Keys shall be removed from equipment at the end of each shift.

5.16 Severe Weather

Outside construction operations including, but not limited to site work, and concrete work are suspended if severe wind or rain conditions present safety hazards at the worksite. Rain and wind storm hazards are evaluated and appropriate measures are taken to abate potential hazards.

5.17 Accident

All accidents and near misses must be reported immediately to the foreman or superintendent. An accident report is then filled out by the employee and the supervisor. Filling out an accident report does not require the delay of medical attention. Any injury is treated first. Employees file such reports without fear of reprisal by management. The accident or incident may be discussed at weekly safety meetings to avoid that sort of accident in the future.

5.18 First Aid

First-aid kits are available in the project office, at the appropriate and accessible locations as indicated during orientation. In addition, foremen and superintendents maintain current first aid boxes at the site.

5.19 Fire Protection

The contractor maintains appropriate fire extinguishers at the fire-prone areas of the construction site. All equipment is fitted with portable fire extinguishers. Employees are instructed on the location and usage of these fire extinguishers. Emergency telephone numbers for fire protection and emergency medical services are posted on the field office bulletin board.

5.20 Emergency Action Plan

Each job site develops an emergency action plan that is reviewed with each employee during orientation. The emergency action plan covers emergency escape procedures, procedures followed by employees remaining to operate critical operations before they evacuate, procedures to account for all employees, rescue and medical duties, and how to report emergencies.

5.21 Environmental Protection Plan

This health and safety plan also contains an Environmental Protection Plan for the control, prevention, management, containment, cleanup, and disposal of petroleum products or other hazardous substances which may be generated on each project site. The Project Engineer directs measures to control and prevent accidental discharge of petroleum products or other hazardous substances during storage and transfer on all job sites. Any onsite storage is in approved containers. Absorbent pads and other recovery equipment shall available to contain and recover any fuel accidentally spilled. Any spills and contaminated soils are cleaned and disposed of in accordance with applicable requirements.

5.22 Traffic and Pedestrian Control

A traffic control plan will be developed and put in place prior to beginning work on the project for the protection of workers and the general public. Barricades and signage must place around job site areas to reroute vehicle traffic and keep pedestrians out of the job site.

Project Engineers and Superintendents will evaluate the site before work starts to plan site control. Fencing, signage, and barricades shall be erected and secured as to keep pedestrians out.

Any time while performing work near or on a roadway and a worker has a sense of traffic patterns not being controlled properly or speeds too extreme for conditions, the worker should remove himself from the area and notify Supervisor. The Project Engineer shall stress and discuss, at weekly meetings, for all workers to be aware of traffic hazards and pedestrians.

5.24 Concrete Work

The project involves concrete work. There are many hazards associated with this work including but not limited to; Slips Trips, Falls, Strains and Sprains, Eye Injuries, Chemical Burns, and Silica Exposure. The risk assessment shall be performed for all concrete work to minimize the associated hazards

6.0 Monitoring and Reporting

Monitoring the implementation of the health and safety plan and progress reporting will be very important for the effective enforcement of the plan. PIU project team along with the supervision consultant will validate effective reinforcement of HSMP. The supervision consultant will frequently visit the construction sites and monitor the effectiveness of the plan implementation. The status of implementation will be reported to the PIU fortnightly.

Annex - IV:

Emergency Response Plan

Emergency Response Plan

1. Introduction

Emergency management can be defined as the organization, coordination and implementation of a range of measures to prevent, mitigate, respond to, overcome and recover from the consequences of emergency events affecting the community, its assets and the environment.

2. Purpose of Plan

This plan intends to provide a framework for safety and security to infrastructure, people and vehicles. It assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency situation that exceeds the capability or routine responsibility of any one agency.

The emergency response plan provides guidance to;

- Prevent any potential sources causing hazard to the resources during all stages of the project;
- Coordinate between various organizations to take actions in case of emergencies;
- Protect people and property in emergencies and disasters;
- Develop procedures to respond to the emergencies efficiently;
- Identify and ensure availability of personnel, equipment, facilities, supplies, and other resources for use in order to provide timely and efficient response and recovery operations; and
- Confirm that measures taken in an incident are adequate to recover the affected resources or further improvements are needed.

3. Planning

i. Emergency Response Team

A group/ team shall be dedicated to identify and control potential emergencies during the construction and operation of the project. The roles and responsibilities of the group members shall be clearly defined.

The primary responsibilities of the group are described below:

- Identify the potential hazard or risk sources that can lead to emergency situations; Ensure availability of adequate resources, procedures and communication system to deal with the identified emergency situations;
- Ensure awareness and training of the staff to facilitate implementation of the emergency response plan;
- Maintaining the records of any previous incidents; and
- Post-event analysis to bridge the gaps of the existing risk prevention procedures.

The emergency response team shall include but not limited to the following;

A. Site Incharge

- Approve/ modify devised measures to prevent or mitigate the risks associated with the identified risk sources;
- Arrange resources for dealing with potential emergencies including, financial, equipment and personnel required to deal with emergencies;
- Assure that the Emergency Response Plan is adequate, effective and implementable.

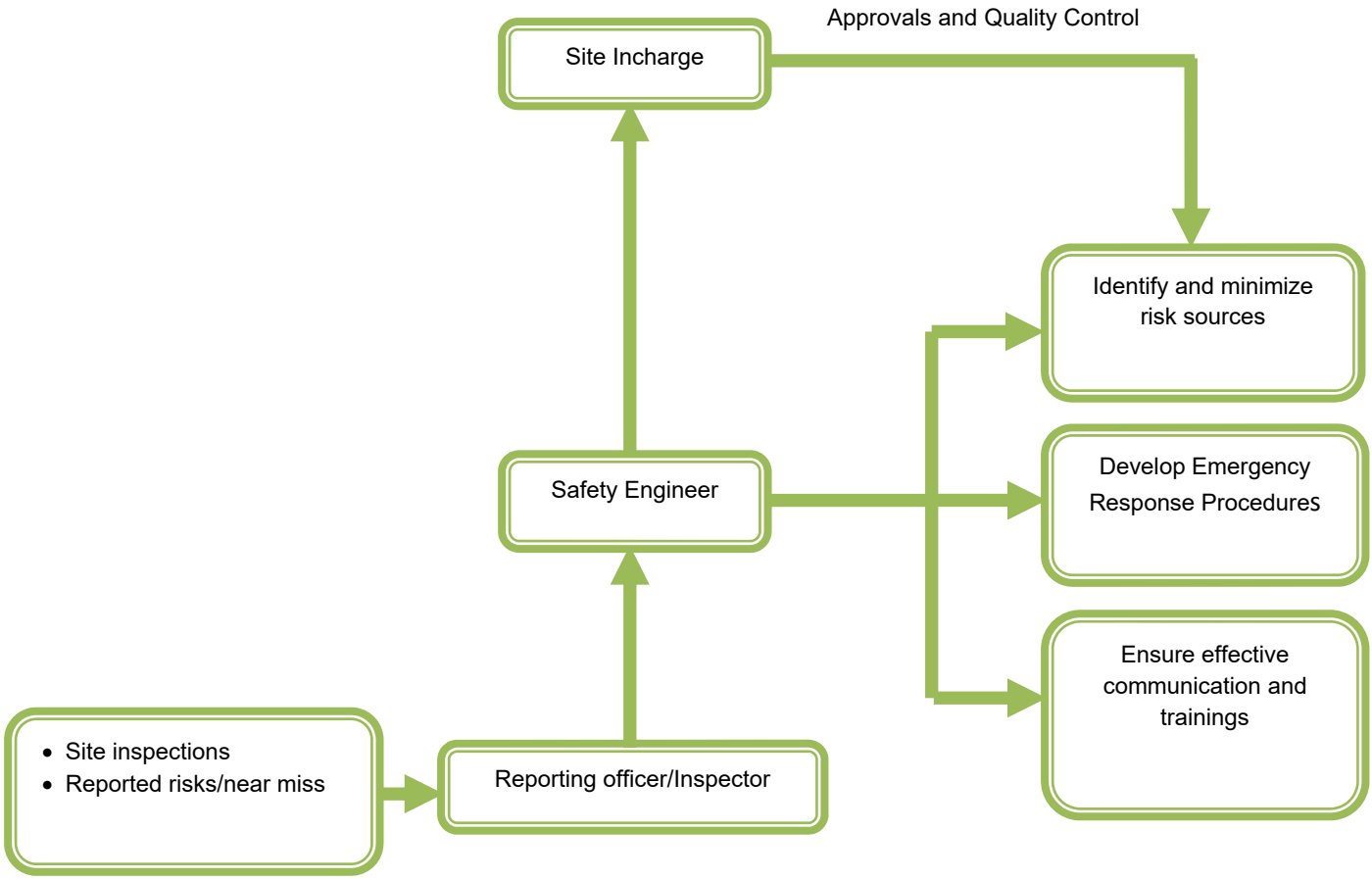
B. Safety Engineer

- Analyze the Identified risk sources and devise measures to prevent or mitigate the risks in close consultation with the Team Leader;
- Develop and implement the Emergency Response Procedures, in case of the possible emergencies arise;
- Ensure effective internal and external communication; and
- Provide regular trainings and arrange drills to make people aware of dealing with emergencies.

C. Reporting officer/Inspector

- Regular inspections of the site, to identify potential risks associated with equipment, materials and work practices;
- Anybody from the site can notify the reporting officer about potential risk and/ or near-misses on the site;
- Record any identified risks and mitigation measures to control the identified risk; and
- Notify the issue and control measures taken thereby to the safety engineer.

The designation, roles and responsibilities of each member shall be clearly defined and communicated to the employees. An outline of the framework of responsibilities is presented in the following organizational chart:



ii. Hazard Identification

A comprehensive identification and evaluation of the hazards/ risks likely to cause an emergency shall be done by Emergency Response Team (ERT). Major potential emergencies identified in projects are as follows:

- Fire
- Earthquake
- Terrorism (including bombing)
- Disease Outbreak
- Structural failure
- Disruption of Utilities (Power, Water, Telecommunications, Gas, etc.)
- Accidents (falls, slips, electric shocks etc.)
- Vehicular accident
- Failure of trenches
- Power/ equipment failure
- Vandalism

iii. Prevention and Mitigation

The ERT shall work to eliminate or reduce the impact of identified emergencies and increasing the resilience of an affected community to recover from the consequences of such events. These activities include:

- Design considerations to control flooding, earthquakes and adequate lightening for fog etc.;
- Regular inspection and maintenance of construction machinery and the structural integrity;
- Review of work schedules based on weather updates; and
- Security controls based on political situations.

4. Emergency Preparedness

The ERT shall be prepared with all necessary resources and the personnel shall be trained regularly.

i. Resources

Finance and administration

The financial resources shall be reserved for dealing with any emergencies arising on site during construction. Responsibilities of the person managing the resources in case of emergencies shall be clearly defined and the required resources shall be adequate and updated regularly.

Equipment

All the necessary equipment needed in an event of emergencies shall be made available, as a minimum, the equipment needed include;

- Personal Protective Equipment
- Alarms/ Warnings
- Fire extinguishers
- Crowd control, flashlights, signs, barricades
- First Aid Facility
- Detection instruments, e.g. personal alarm kits; smoke detection instruments
- Tools to fix minor vandalism

Communication

All external and internal communication systems shall be made available. Local emergency numbers shall be clearly posted and communicated to the personnel involved in construction.

The local emergency numbers are given below, which shall be regularly updated.

Emergency Numbers

	Service	Karachi (021)
1	Edhi Services	241 3232
2	Edhi Ambulance	115
3	Emergency Police	15
4	Fire Brigade Center	16
5	Civil Hospital	021-99215740
6	Chippa Service	1020

Trainings

Personnel shall be made aware of the importance of safety, potential emergencies and how to respond in case of emergencies. One day training and mock exercise shall be done to prepare, the personnel to deal with emergencies.

5. Emergency Response

Response includes actions taken to reduce the impacts of an emergency event, and to limit the threat to life, property and the environment.

The emergencies can be dealt with:

- On-site Management of the situation
- Off-site coordination to arrange necessary resources to support the on-site management
- Providing advice and reports of the situation to stakeholders

i. Emergency Response Procedure:

Any person can report about an emergency, an on-site worker, an outside agency, or the public. Circumstances change during the course of an emergency in different events, thus, the procedure will vary as per the specific situation on ground. However, a basic action plan to be followed in an emergency is discussed below. This order of response is applicable to almost any emergency and should be followed in sequence.

Assess the situation:

The most important thing to do in case of emergency is to stay calm and avoid panic. Assess the situation, the cause and most immediate requirement to control, limit and/ or manage the immediate, ongoing, or further damage.

Immediate control:

The most senior person on the scene should take control and contact, or delegate someone to contact emergency services as posted and communicated by ERT and inform the reporting officer of ERT and explain the situation. The area of emergency shall be restricted by barricades, tapes and adequate signage, if and as required.

Protection from further losses:

- Once the site is restricted, to provide protection and reduce further losses, the source causing the emergency shall be controlled including equipment, materials, environment and accident scene from continuing damage or further hazards to the area and people. e.g.: suppress fire, prevent objects from falling, shut down equipment or utilities, and take other necessary measures as required depending upon the type of emergency
- Provide first aid if required or in doing so.
- Designate people to emergency duties. e.g: assign personnel to guide emergency services on arrival.
- Headcount People/ personnel to identify any missing persons.
- People/ personnel shall be directed to safe location.
- Arrange diversions for the traffic to reduce disturbance to the flow of traffic, if and as far as possible.
- Preserve the accident scene until experts mark it safe; only disturb what is essential to maintain life or relieve human suffering and prevent immediate or further losses.

ii. Communication:

Emergency service providers:

The emergency service providers' needs to be kept informed of the situation. On site, personnel from the emergency services shall be guided towards the emergency scene, brief about the event, ongoing and potential hazards and cause(s), if known.

Emergency Response Team and Management:

Members of ERT shall be immediately informed and the management shall also be kept informed.

Public:

Timely notifications to public shall be disseminated through electronic and print media depending upon the requirement and urgency of the emergency so that they can adopt alternate routes and avoid the hazards associated with the emergency encountered.

Utilities:

In case of disruption of utilities, the utility control authorities shall be immediately contacted to control the situation.

6. Recovery:

Emergency affected individuals, communities and infrastructure shall be restored in terms of emotional, economic, and physical wellbeing including the following as a minimum:

- A detailed analysis and assessment of causes of emergency, extent of damage and gaps if any, in managing the emergency;
- Recovery/ replacement of the assets and infrastructure;
- Reinstatement of disrupted services;
- Updating of safety arrangements and Emergency response procedures to ensure better safety and security in any other arising emergencies.

Annex - V:
Monitoring Checklist

Monitoring and Supervision Checklist

Project	
Site Location	
Current Status	
Supervision Date	
Supervised By	

Inspection Items	Implementation			Remarks (i.e., specify location, good practices, problem observed, possible cause of nonconformity, and/or proposed corrective/preventative actions)
	Yes	No*	N/A	
1. Air Pollution Control				
1.1. Vehicle loads covered with any suitable material while transporting construction material?				
1.2. Are stockpiles of dusty materials covered or watered?				
1.3. Does the Construction Contractor (CC) have the proper material handling practices at the site?				
1.4. Others (please specify)				
2. Surface and Ground Water Pollution Control				
2.1. Area chemicals or hazardous material stored at designated places?				
2.2. Are effluents from the construction sites released to drinking water sources, cultivation fields, irrigation channels, and critical habitats?				
2.3. Does the CC have tarpaulin sheets available at the site?				
2.4. Others (please specify)				
3. Noise Control				
3.1. Are machinery operations and high noise activities carefully planned and scheduled?				
3.2. Are high noise activities ceased between 20:00 and 06:00hrs?				
3.3. Is the noise level monitoring carried out periodically? And is the monitoring register maintained?				
3.4. Others (please specify)				
4. Solid Waste Management				
4.1. Is recycling of solid waste carried out?				
4.2. Are the construction sites equipped with temporary refuse bins?				
4.3. Is the waste dumped or thrown				

around the project site?				
4.4. Is the waste tracking register maintained at the site?				
4.5. Is the waste properly disposed of in designated areas and not affecting the drinking water sources, cultivation fields, irrigation channels, natural drainage paths, the existing waste management system in the area, local routes, and the general aesthetic value of the area?				
4.6 Is Covid 19 prevention waste being handled and stored properly?				
4.7. Others (please specify)				
5. Occupational Health and Safety				
5.1. Are WB Group's Environment, Health, and Safety (EHS) Guidelines implemented in letter and spirit?				
5.2. Are appropriate personal protective equipment (PPE) provided to minimize risks, such as appropriate outerwear, boots, and gloves; safety helmets as well as per COVID-19 requirements?				
5.3. Are first-aid equipment at works provided?				
5.4. Is water stagnation observed near the construction site?				
5.5 Are protocols for slips and trips being followed?				
5.6. Are protocols for work at height being followed?				
5.7. Is training for workers for the use of PPE provided?				
5.8. Are procedures for documenting and reporting accidents, diseases, and incidents implemented at the site?				
5.9. Others (please specify)				
6. Labor Issues				
6.1. Are labor locally procured for the construction activities?				
6.2. Is there any child working?				
6.3. Others (please specify)				
7. Project Exclusions				
7.1. Are environment-friendly designs of proposed water supply and sewerage systems disseminated within the communities as a guide?				
7.4. Are women's and vulnerable groups' participation in consultation for project interventions ensured?				
7.5. Is the GRM implemented for				

the amicable resolution of disputes or conflicts?				
7.6. Others (please specify)				

Annex - VI

Solid Waste Management Plan

Administration	Segregation	Disposal	Recyclable Waste
•The contractor will manage all the solid waste generated during the construction.	•The waste will be segregated. •The reusable waste will be reused within the site. •The excessive reusable waste will be transferred to the secondary users.	•The non-reuseable waste will be transferred to the SSWMB community bins.	•All the recyclable waste will be recycled and sold out to the vendors.