



# Environmental and Social Screening and Environmental Management Plan

## Provision/Improvement of Toilet Blocks at Selected Sites of Northern Punjab

(September 2022)



Project Management Unit (PTEGP)  
Planning and Development Board  
Government of Punjab

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## Abbreviations

Acronym	Definition
BOQs	Bill of Quantities
DG	Director General
DGA	Directorate General of Archaeology
EP	Environmental Protection
EPA	Environmental Protection Agency
ESMF	Environment and Social Management Framework
ESMP	Environment and Social Management Plan
E&S	Environmental and Social
E&SS	Environmental and Social Screening
BHU	Basic Health Unit
EA	Environmental Assessment
GOP	Government of Pakistan
GOPb	Government of Punjab
NA	Not Applicable
NOC	No objection certificate
OHS	Occupational Health and Safety
OP	Operational Policy
Pb	Punjab
PCR	Physical Cultural Resources
PDO	Project Development Objective
P&DD	Planning & Development Department
PMU	Project Management Unit
PTEGP	Punjab Tourism for Economic Growth Project
RAP	Resettlement Action Plan
RHC	Rural Health Centre
SAA	Same as Above
SDO	Sub-Divisional Officer
TDCP	Tourism Development Corporation of Punjab
TMA	Tehsil Municipal Administration
UNESCO	United Nation, Education, Scientific and Cultural Organization
USD	United States of America, Dollar
WB	World Bank





## 1. Introduction

### 1.1 Overview

The Government of Pakistan (GOP) development agenda (Vision 2025) stresses the objectives of boosting economic growth, job creation and regional cooperation in addition to bolstering the country's image abroad. Tourism is highlighted as one of the sectors of the economy that could help stimulate economic growth. Cultural and heritage tourism is a large and growing international market that Pakistan could leverage to create more and better jobs<sup>1</sup>

The Planning & Development Department, Government of Punjab (GOPb) with the financial assistance of the World Bank (WB) has launched the Punjab Tourism for Economic Growth Project (PTEGP) to increase the contribution of the tourism and related sectors to the local economic development of the province. The objectives of the project are to strengthen institutional capacity, increase private sector participation and improve infrastructure services for the tourism sector growth in the Province of Punjab<sup>2</sup>. The total funding of the Project is 55 Million USD with a World Bank contribution of USD 50 million over the five-year time frame<sup>3</sup>

The Project consists of four major components<sup>4</sup>:

Component 1: Policy, Institutions and Governance for Tourism Development

Component 2: Private Investment and Entrepreneurship Promotion

Component 3: Public Investment Facility

Component 4: Project Management, Monitoring and Evaluation

The project is being implemented by a dedicated Project Management Unit (PMU) PTEGP since October 2017. The project is financing some low-scale physical interventions to provide improved access, better road conditions and public convenience facilities in selected tourists destinations located throughout the Punjab Province.

### 1.2 Project Environmental and Social Management Framework

The detail of sub-projects to be executed under the PTEGP was not available during the project initiation, so an Environmental and Social Management Framework (ESMF) was prepared for PTEGP in December 2016 according to WB Operational Policy (OP) 4.01.

The project ESMF has been approved by the WB and is available on the WB and PTEGP website for public disclosure (refer to footnote no. 4 and 5 for the web link to ESMF available on PTEGP and WB website respectively). The overall project has been assigned Category B, due to the limited environmental and social impacts only during the construction phase. The ESMF concluded that; <sup>5</sup>

Environmental and Social Screening (E&SS) shall be carried for each sub-project intervention/s in order out to determine the appropriate Environmental and Social category as per WB Operation Policies.

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<sup>1</sup> Combined project information documents / integrated safeguards data sheet (PID/ISDS) concept stage, May 23, 2016. The document is available at <https://documents1.worldbank.org/curated/en/841201468290413656/text/PIDISDS-CON-Print-P158099-05-29-2016-1464517363920.txt>

<sup>2</sup> Financing Agreement PTEGP between Islamic Republic of Pakistan and International Development Association, dated; August 2, 2017. The document is available at <https://documents1.worldbank.org/curated/en/337281506350830259/pdf/ITK171540-201708251045.pdf>

<sup>3</sup> Adapted from [https://ptegp.punjab.gov.pk/project\\_overview](https://ptegp.punjab.gov.pk/project_overview)

<sup>4</sup> <https://ptegp.punjab.gov.pk/system/files/ESMF%20Manual.pdf>

<sup>5</sup> <https://documents1.worldbank.org/curated/en/916261483004112382/pdf/SFG2802-EA-P158099-Box396342B-PUBLIC-Disclosed-12-28-2016.pdf>



- Category-A sub-project will not be financed under this project. If Category-A sub-project is identified, sub-project will be either dropped or replaced with a Category B or C sub-project.
- Environmental and Social Management Plans (ESMPs) will be prepared for category 'B' sub-projects and clearance from WB will be a prerequisite before initiating the sub-project. The guidelines for the preparation of ESMPs are attached as Annex-8 of project ESMF.
- Sub-projects categorized as Category C, no further activity beyond screening would be required.
- PMU PTEGP will obtain necessary NOCs from the relevant departments before commencing works of any sub-project.

### 1.3 Purpose of this Document

The sub-project "provision of new and improvement of existing toilet block/s at selected tourism sites. Selected tourists' sites where provision of new or improvement in existing toilets are given below. The relevant signage in English, Urdu and images of Male/Female/Disabled will be displayed on toilets door. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal. If there is no existing sewerage system close to the new proposed toilets, a soaking pit will be constructed for the wastewater disposal.

List of Proposed Toilets Block Northern Zone of Punjab Province, Pakistan

Sr. No	Location		District	Land Ownership
1	Wah Gardens		Rawalpindi	Archeological Department
2	Sirikap Taxila			Archeological Department
3	Mohra Muradu Taxila			Archeological Department
4	Dharma Rajika Taxila			Archeological Department
5	Patriata Hill Station	Start Point		TDCP
6		Mid-Point		TDCP
7		Top Point		TDCP
8	Mall Road Murree	GPO Chowk		TDCP
9	Tench Bhatta Bazaar	Site-I		TDCP
10		Site-II		TDCP
11	Taxila Museum (Renovation + Addition)	Female		Archeological Department
12		Male		Archeological Department
13	TDCP Dhanoi Rest House Kotli Sattian			TDCP
14	TDCP Khajut Stopover,	Male		TDCP
15		Female		TDCP
16	TDCP SightSeeing Bus Terminal,	Site-I		TDCP
17		Site-II		TDCP
18	Lala Rukh Tomb		Attock	Archeological Department
19	Dharabi Lake		Chakwal	TDCP
20	Katas Raj			Archeological Department



Sr. No	Location		District	Land Ownership
21	TDCP Resort Kallar Kahar (Renovation and Addition)			TDCP
22	TDCP Dhok Talian,			TDCP
23	Rohtas Fort		Jhelum	Archeological Department
24	TDCP Daud Khail		Mianwali	TDCP

Prior requirement of Environmental and Social Screening (E&SS) reports are identified for all sites based on which is based on three aspects; viz., nature of the project, size of the project and location of the project that is a sensitive area as stated in the project ESMF. Based on this assessment, sub-projects with potentially significant environmental and social impacts are identified at an early stage for detailed environmental and social assessment.

This Environmental and Social Screening (E&SS) and Environmental Management Plan (EMP) has been prepared for the recently shortlisted/ newly added sub-project provision and improvement of toilet blocks at the above-mentioned locations in the northern part of the Punjab Province. It is pertinent to mention that no land acquisition or resettlement will be involved as all sites proposed by the Director General (DG), Directorate General of Archaeology (DGA) are owned by the DGA Archaeology Department or a property of TDCP or Forest Department.

#### 1.4 Methodology for Environmental and Social Screening (E&SS)

Methodology for E&SS and EMP are already defined in the project ESMF. While the relevant forms/checklists to be adopted during the E&SS process have been provided in the following sections of the project ESMF;

- Environmental and social screening form has been provided as Annexure-6.
- An involuntary resettlement screening checklist has been provided as Annexure-C.
- Guidelines for an environmental management plan EMP/ESMP (if required) has been provided as Annexure-8.
- Physical cultural resource management framework and chance find procedures (if required) has been provided in Annexure-10.

The data required for completing above mentioned forms/checklist has been obtained from both primary (field visit/s, consultations, project engineering document/s, designs etc.) and secondary sources (literature including documents/ reports/ papers/ dissertations/ encyclopedias both available online and in printed format/s etc.).

Stakeholders' consultations have been conducted with relevant persons, affectees (if any) and organizations during the field surveys according to WB and Pakistan Environmental Protection Agency (EPA) guidelines. Moreover, relevant applicable legislation and policies have been reviewed according to the scope of the sub-project. In the end, the conclusion of E&SS and EMP has been drawn and appropriate recommendation/s has been made (where applicable).

#### 1.5 The Team

The PTEGP staff that participated in the preparation of this E&SS report includes; Ahsan Bela (Environment Specialist), Tajwar Saeed (Social Safeguard and Gender Specialist) and Arif Mukhtar Rana (Civil Engineer). Moreover, PTEGP hired Pak Green Enviro-engineering Pvt. Ltd. as a consultant to provide support in order to expediate the process of E&S screening, the team of Participants from Pak Green included,



Ahmad Raza (Senior Environmentalist), Faiza Anjum (Environmentalist), Sabeera Tauheed (Junior Environmentalist), Amna Aftab (Environmental Engineer), and Iqra Zahid (Junior Environmentalist).

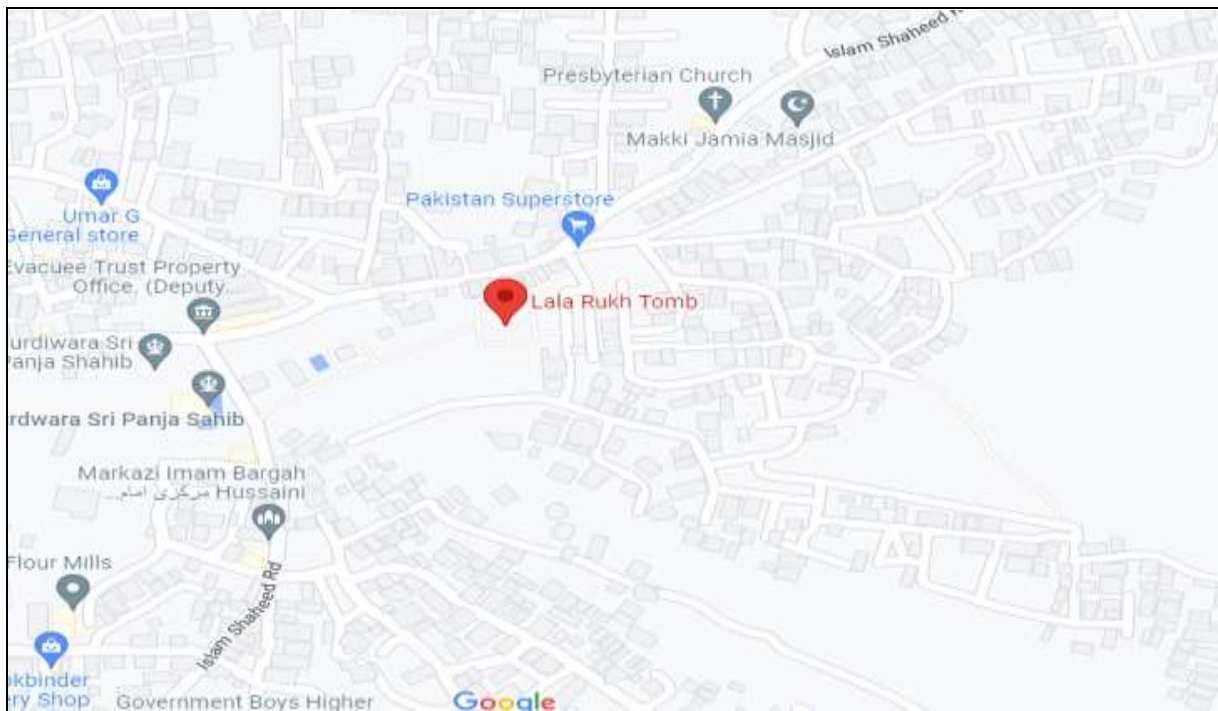


## 2. Project interventions

### 2.1 Lala Rukh Tomb

Tomb of Lala Rukh is a historical tomb in Hasan Abdal, Pakistan, that is traditionally attributed to Princess Lala Rukh, daughter of the Mughal emperor Akbar. It is not known that who is buried here. The tomb is located on the Islam Shaheed Road in Hasan Abdal, Attock District, in present day Punjab, Pakistan. The tomb is just opposite to the Gurdwara Panja Sahib and the Hakimon ka Maqbara. No Land aquisition is required site is owned by Archeology Department.

Figure 1: Location map of Lala Rukh Tomb, Hasan Abdal, District Attock



Source: Google Maps, 2022. [Accessed 17 March 2022].

Figure 2: Different views of Lala Rukh Tomb





Source: This study

### 2.1.1 Proposed Interventions at Lala Rukh Tomb, Attock

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area at the back of Lala Rukh Tomb. The location of the proposed toilet block is shown in Figure 3. The land required for the construction of the toilet block is the property of Archeology Department. The project does require NOC for all sites from relevant authority i.e., Archaeological Department or TDCP (depending on site ownership). The NOC has been obtained from Archaeological Department and TDCP (copies attached as an Annexure A. A picture of the site proposed for the new toilet block is provided in Figure 4.

Figure 3: Site plan of the proposed toilet block at Lala Rukh Tomb, Attock

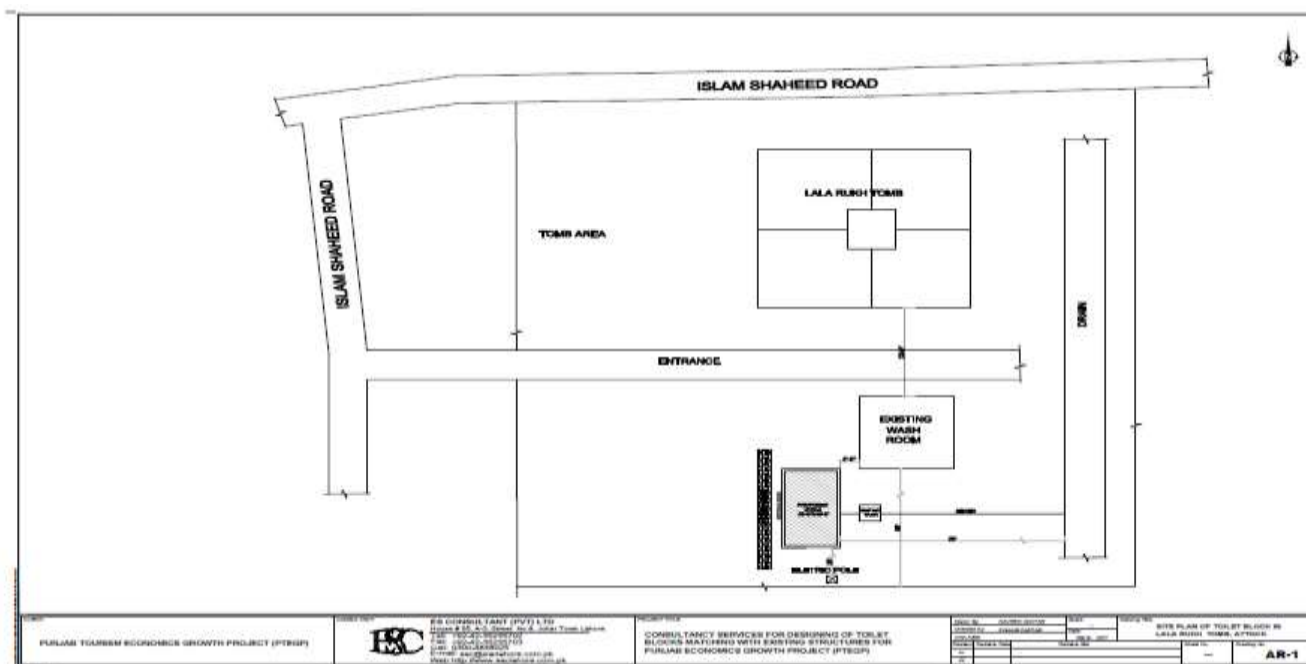


Figure 4: Proposed site for new toilet block at Lala Rukh Tomb, Attock



Figure 5: Front Elevation of Lala Rukh Tomb, Attock

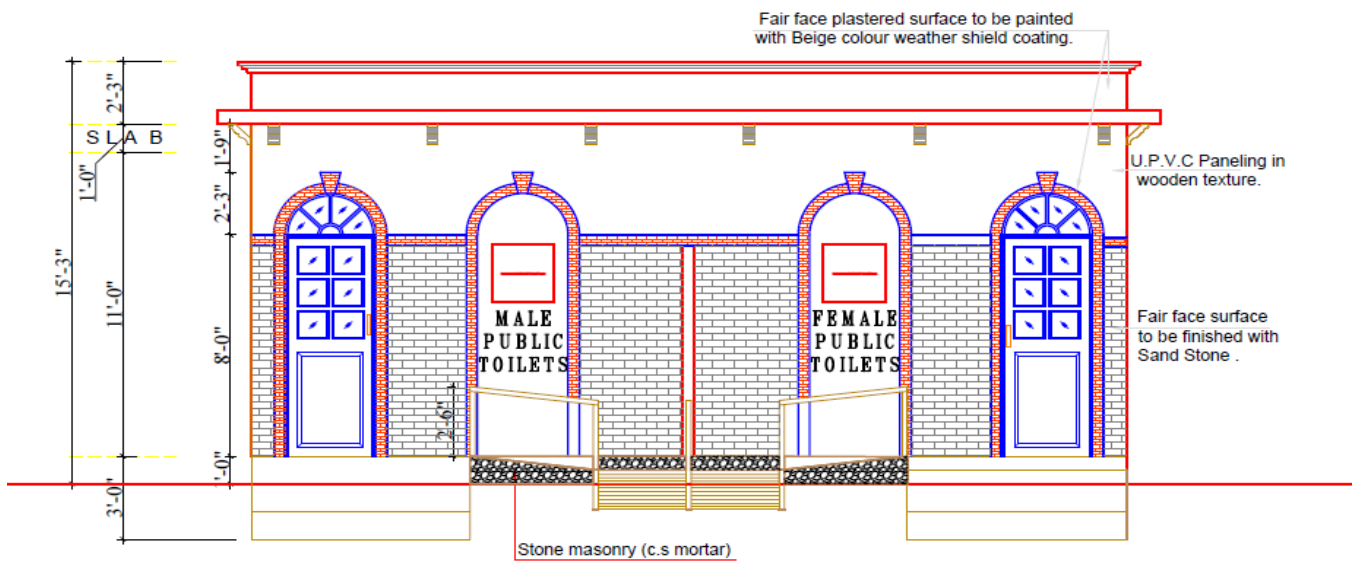
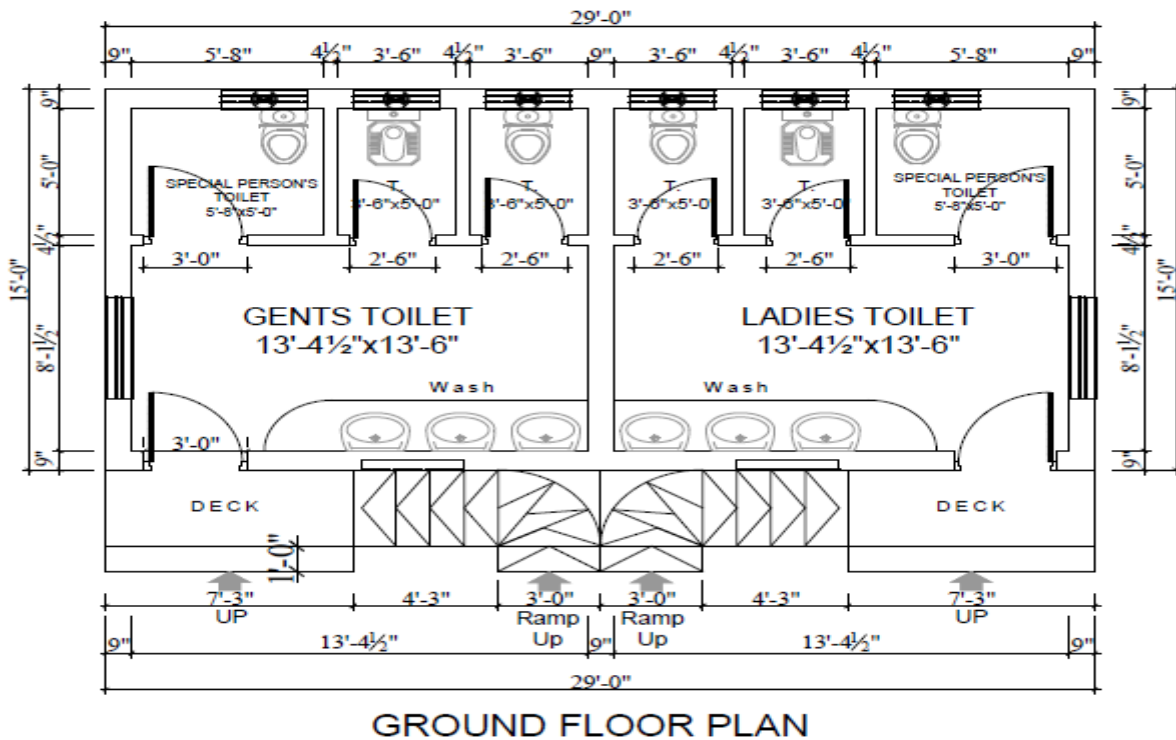


Figure 6: Layout plan of toilet blocks of Lala Rukh Tomb, Attock



**Figure 7: 3D Elevation of Toilets Block at Lala Rukh Tomb, Attock.**



### **2.1.2 Layout Plan of Proposed Toilet Block at Lala Rukh Tomb, Attock.**

The covered area of the new proposed toilet block is 1037 sq. ft. Moreover, the front elevation, the layout plan and the 3D elevation of the proposed toilet block is presented in Figure 5, Figure 6 and Figure 7 respectively.

### **2.1.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 1 :

**Table 1: Activities/ tasks and estimated quantities of construction works at Lala Rukh Tomb, Attock.**

<b>Sr. #</b>	<b>Activity/ Task</b>	<b>Total Quantities</b>
1	Excavation for foundation maximum up to 5 feet.	1774.3 Cft.
3	Brickwork	1506 Cft.
4	Installation of PVC coated chaukat	120.71 Cft.
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	1103.82 kg
6	RCC works in roofs, beams, columns and girders	386.0395 Cft
7	Ceramic tile laying work	2015.118 sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	82.5 sft.
9	Woodworks/ doors	64 sft.
10	Applying weather shield paint (2 coats)	728.00 sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
13	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

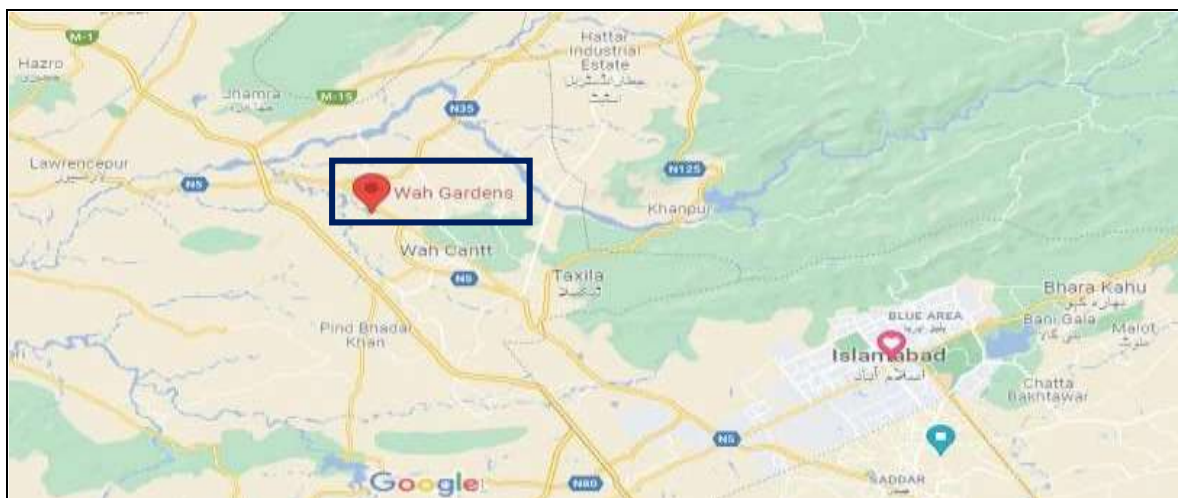
Source: Sub-project



## 2.2 Wah Garden

Wah Gardens are located in the city of Wah, Punjab about 50km to the northwest of Islamabad on the main Grand Truck Road as shown in figure 8.

Figure 8: Location map of Wah Gardens



Source: Google Maps, 2021. [Accessed 16 November 2021].

Wah Gardens, the 16th-century complex consisting of gardens, pavilions, water tanks and natural springs was called Farudgah-i-Shahan-i-Mughlia by Mughals. Like the other pleasures of the Mughal period, the Garden was divided into three stages through screen walls having a main entrance on the west. In between the first and the middle stage was an imposing pavilion having a cascade, a cistern and water channels. The middle stage had the main water tank (200'x200') and a pavilion at its end. Beyond that was an oblong-shaped Baradari which was used as the halting place of the Emperor (the Fardgah). The plan shows their resemblance to the Naqqar Khana of the Shalimar Garden at Lahore.<sup>23</sup>

The Wah Gardens site is on the key monument list of the Archaeology department but it is not on the UNESCO World Heritage list<sup>24</sup>. Selected views of Wah Gardens are provided in Figure 9.

Figure 9: Different views of Wah Gardens



Source: This study

### 2.2.1 Proposed Interventions at Wah Gardens

The sub-project involves the construction of one (1 No.) new toilet block (single storey) at Wah Gardens. The boundary of Wah Gardens marked by the Directorate General

of Archaeology (DGA) and the location of the proposed toilet block is presented in Figure 10, while the picture of the site proposed for the new toilet block is provided in Figure 11. The land required for the construction of the toilet block is the property of DGA. This area is reserved by DGA to develop future facilities i.e. car parking, kids play area, canteen, toilets etc. for the tourist. No land acquisition is required, the land is owned by Archeology Department.

**Figure 10: Location of the proposed toilet block at Wah Gardens**



**Figure 11: View of Proposed Site for New Toilet Block**



The cumulative covered area of the proposed toilet block is 1037 sq. ft. The proposed toilet block will have two partitions, one partition each for males and females with separate entrances. Each partition will have five (905) toilets, with one specifically designed and reserved for persons with disabilities.

The wastewater from new toilet blocks will be discharged into the existing sewer connection of the TMA, Wah.

### **2.2.2 Layout Plan of Proposed Toilet Block at Wah Gardens**

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lala Rukh tomb. Moreover, the front elevation, layout plan, and the 3D elevation of the proposed toilet block is also similar to Lala Rukh as presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.2.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 2 below;

**Table 2: Activities/ tasks and estimated quantities of construction works at Wah Gardens**

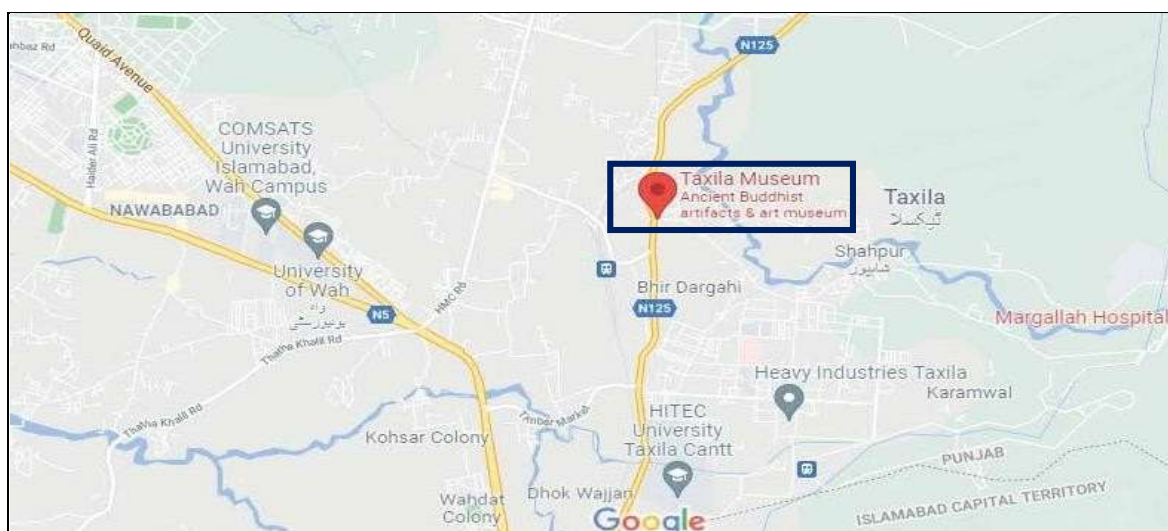
Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2486.4 Cft.
2	Brickwork	4593.25 Cft.
3	Installation of steel chaukat	1 No.
4	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	3684.9 kg
5	RCC works in roofs, beams, columns and girders	1038.45 Cft
6	Ceramic tile laying work	4454.44 sft
7	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	180 sft.
8	Woodworks/ doors	64 sft.
9	Applying emulsion paint (3 coats)	2681.26 sft
10	Providing and laying of tuff pavers	300 sft.
11	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
12	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project BOQ.

### 2.3 Taxila Museum

Taxila Museum and the archaeological sites are located at Taxila, a tehsil of Rawalpindi, Punjab. It lies about 25 km northwest of Islamabad and Rawalpindi, just off the famous Grand Trunk Road (Figure 12).

**Figure 12: Location map of Taxila Museum**



Source: Google Maps, 2021. [Accessed 16 November 2021].



The archaeological sites of Taxila include buildings and Buddhist stupas from the 5th century to the 6th century AD. The main ruins of Taxila are divided into three major cities, each belonging to a distinct period. The oldest of these is the Hathial area, which dates between the 6th century BCE and the late 2nd millennium BCE. The second city of Taxila is located at Sirkap and was built by Greco-Bactrian kings in the 2nd century BCE. The third city of Taxila is at Sirsukh and relates to the Kushan kings

The foundation stone of Taxila Museum was laid in 1918 by Lord Chelmsford, the then Viceroy and Governor-General of British India, while the opening ceremony was performed by Sir Muhammad Habibullah, Member for Education on April 5, 1928. The building consists of a central hall flanked by two Galleries. The Museum reflects the cultural history and varied achievements of the people of Taxila during the last four thousand years. From the vast collection of antiquities recovered from the excavations at Taxila, over 7000 rare and preserved objects have been displayed in the Museum. Archaeological excavation at Taxila or Takshasila as it was known in ancient history were carried out between the years 1913 and 1934 by Sir John Marshall, then the Director-General of Archaeological Survey of British India.

The Archaeological Sites of Taxila is on the UNESCO World Heritage list since 1980 (UNESCO Reference No.: 139). However, the Museum Building itself is not on the UNESCO heritage list. Selected views of Taxila Archaeological Site and museum are provided in Figure 13. There is no land acquisition, the land owned by Archeology Department.

**Figure 13: View of Taxila Museum and Archaeological Site**



Source: Adapted from <https://archaeology.punjab.gov.pk/taxila-museum>

### **2.3.1 Proposed Interventions at Taxila Museum**

The sub-project involves the renovation of the existing toilet block and provision of two toilets for disabled/special persons (one for female and one for male), right next to the existing male and female toilet blocks. The land required for the construction of new toilets for disabled persons is the property of DGA.

Figure 14: Location of existing toilets blocks to be renovated



aKwzDKI

Figure 15: Picture of existing toilet blocks sites and area proposed for new toilets for disabled



Site for new Toilets for Disabled

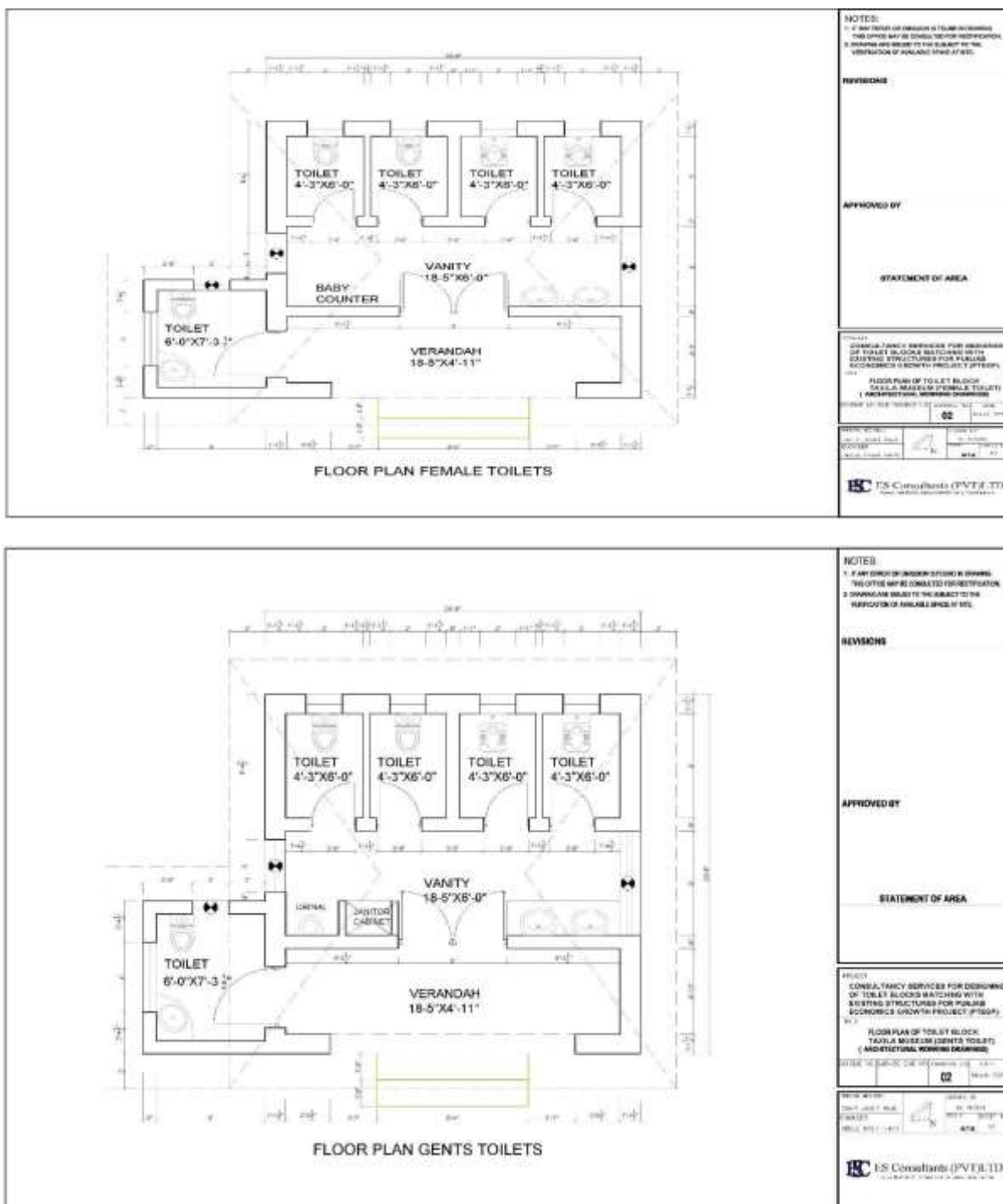
Inner view

The wastewater from new toilet blocks will be discharged into the existing sewer connection of the TMA, Taxila.

### 2.3.2 Layout Plan of Proposed Toilet Block/s

The cumulative covered area of two new toilets for disabled/special persons (1 each for male & female) is 96 sq. ft. only (48 sq. ft. each). The layout plan of the existing toilet block and new toilet for the disabled is presented in figure 16.

Figure 16: Layout plans for existing toilet blocks with adjacent new toilets for the disabled.



Source: Detailed design of toilets

### 2.3.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table below;

**Table 3 Activities/ tasks and estimated quantities for construction work at Taxila Museum**

Sr. #	Activity/ Task	Total Quantities
1	Dismantling brick work in lime or cement mortar.	68.4 Cft.
2	Dismantling of glaze tile Flooring and Skirting	178.6 Cft.
3	Excavation for foundation of two toilets (1No. for male and 1No. for female disabled person)	1238.5 Cft.
4	Removing door with Chowkat, windows, skylights, cement and lime plaster, ventilators; scrapping of distemper and paint of wall etc.	---
5	Installation of steel Chowkat	10 No.
6	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	170.3 kg
7	RCC works in roofs, beams, columns and girders	184.4 Cft.
8	Ceramic tile laying work	3348.6 sft.
9	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	---
10	Woodworks/ doors, ventilators and deduct etc.	---
11	Applying emulsion paint (3 coats)	3323.8 sft.
12	Providing and laying of tuff pavers	400 sft.
13	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (2No.); exhaust fan (6No.); tube lights (10No.); water geyser (2No.) etc.	---
14	Installation of water supply, plumbing and sanitary i.e. washbasins (4No.); water mixer (4No.); plastic flush tanks (4No.); laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project BOQ.

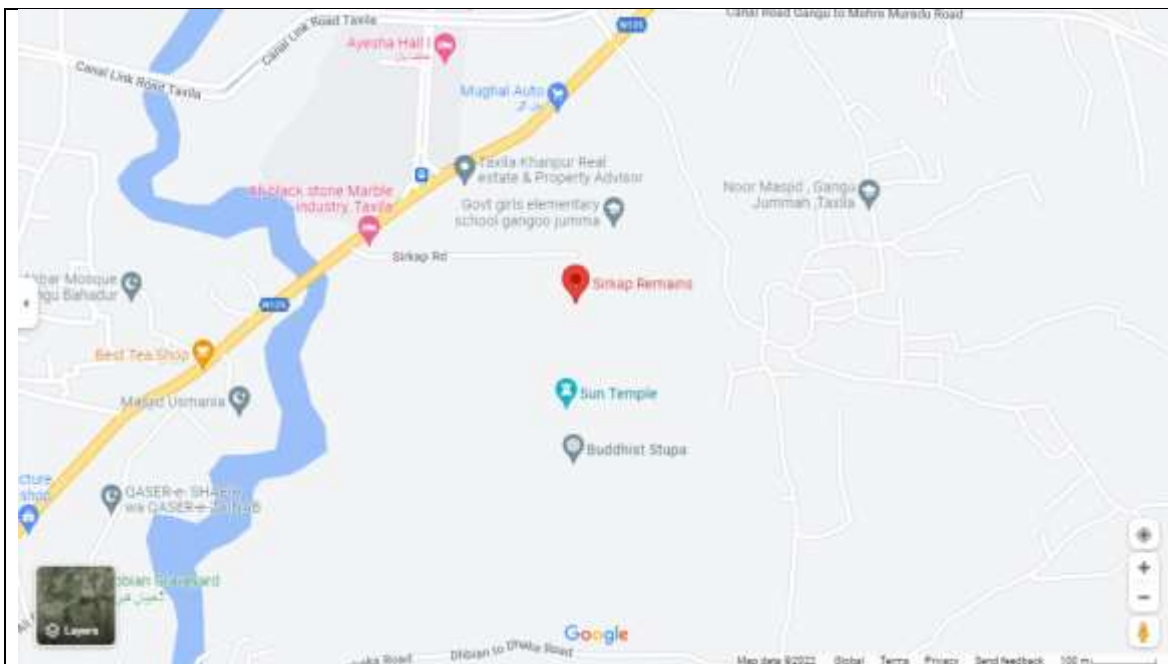
## 2.4 Sirkap Taxila

The city of Sirkap was built by the Greco-Bactrian king Demetrius after he invaded ancient India around 180 BC. Demetrius founded in the northern and northwestern Indian subcontinent an Indo-Greek kingdom that was to last until around 10 BC. Sirkap is also said to have been rebuilt by king Menander I. The modern visitor sees the sixth phase and its reconstruction by the Parthian king Gondophares, which is sometimes called "Indo-Parthian": the years between, say, 30 BCE and 80 CE. The excavated area is large: about 1200 meters long and 400 wide. The wall that surrounded the city, built in phase 5, appears to have had a height of 6-10 meters, was 5-7 meters wide, and almost 4,800 meters long. The land is the property of Archeology Department and NOC from Archeology Department is attached as Annexure-A.





**Figure 17: Location map of Sirkap Taxila**



Source: Google Maps, 2022. [Accessed 09 March 2022].

**Figure 18: Different views of Sirkap Taxila**



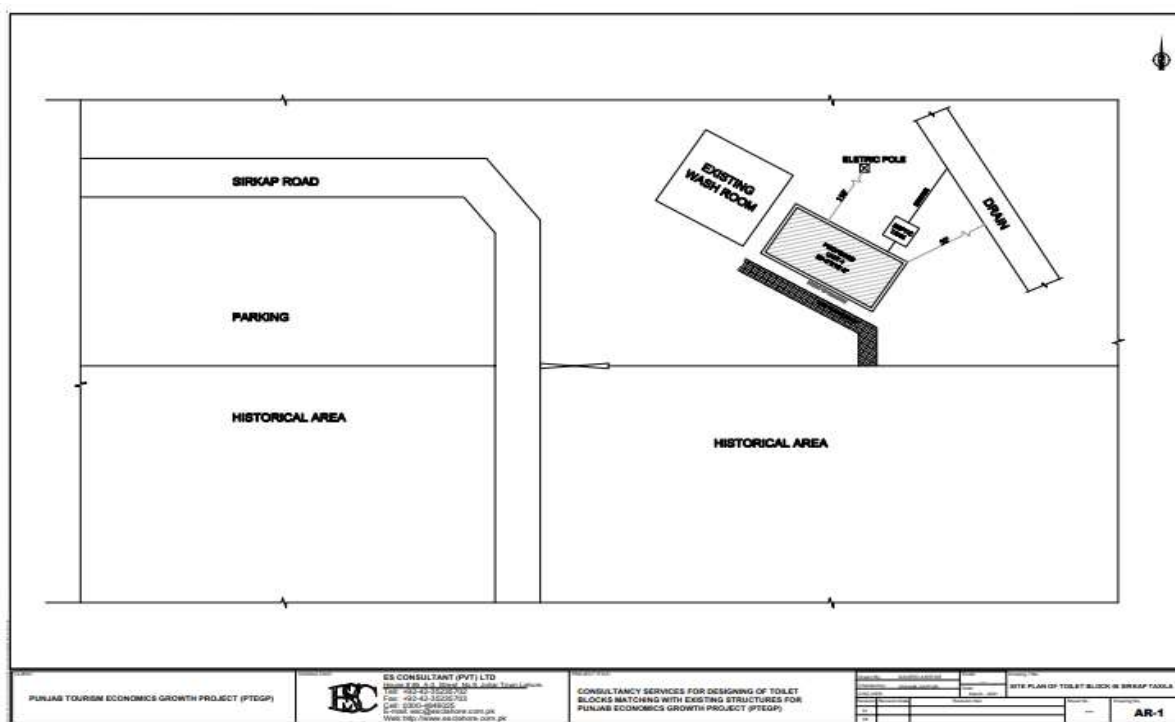
Source: This study

### **2.4.1 Proposed Interventions at Sirkap Taxila**

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Sirkap Taxila. The boundary of Sirkap Taxila and the location of the proposed toilet block is shown in figure 19. The land required for the construction of the toilet block is the property of Archeology Department. A picture of the site proposed for the new toilet block is provided in Figure 20. As there is no existing sewerage system, so the septic tank and soaking pit will be constructed at the site for sewerage disposal.



Figure 19: Location of the proposed toilet block at Sirkap Taxila



**Table 4: Activities/ tasks and estimated quantities of construction works at Sirkap Taxila**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2509.09 Cft.
2	Brickwork	1601.75 Cft.
3	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	2487.273 kg
4	RCC works in roofs, beams, columns and girders	367.25 Cft
5	Ceramic tile laying work	307.6875sft
6	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	82.5 sft.
7	Woodworks/ doors	162.42 sft.
8	Applying weather shield paint (2 coats)	728.00 sft
9	Providing and laying of tuff pavers	300 sft.
10	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project

## 2.5 Dharma Rajika

The Dharmarajika stupa was constructed in 2nd century A.D., part of the eight shrines built in 3rd century B.C by Emperor Ashoka. the great Dharmarajika stupa was constructed in 2nd century A.D.The great stupa is accredited for being one of the earliest Buddhist monuments. The Dharmarajika is circular in plan with a 45 feet tall drum, “and has a raised terrace around its base and four flights of steps. The dimensions of the main stupa, including the terrace and the steps, are given as 150 feet from east to west and 146 feet from north to south, with the body of the Great Stupa having an average diameter of 115 feet and the berm projection of 8 feet and the steps a further projection of 8 feet 6 inches.” (Dani, 1986).

The land is owned by Archeology Department, so there is no land acquisition required.

**Figure 21: Location map of Dharma Rajika**



Source: Google Maps, 2022. [Accessed 09 March 2022].





**Figure 24: Picture of proposed Site**



### **2.5.2 Layout Plan of Proposed Toilet Block at Dharma Rajika**

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lala Rukh Tomb Attock. Moreover, the front elevation, layout plan and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb Attock and presented in Figure 5, Figure 6 and Figure 7 respectively.

### **2.5.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 5 below;

**Table 5: Activities/ tasks and estimated quantities of construction works at Dharma Rajika**

<b>Sr. #</b>	<b>Activity/ Task</b>	<b>Total Quantities</b>
1	Excavation for foundation maximum up to 5 feet.	2509.09 Cft.
2	Brickwork	789.12 Cft.
3	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	2487.273 kg
4	RCC works in roofs, beams, columns and girders	361 Cft
5	Ceramic tile laying work	367.25 sft
6	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	82.5 sft.
7	Woodworks/ doors	162.42 sft.
8	Applying weather shield paint (2 coats)	783.125 sft
9	Providing and laying of tuff pavers	300 sft.
10	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---

Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.

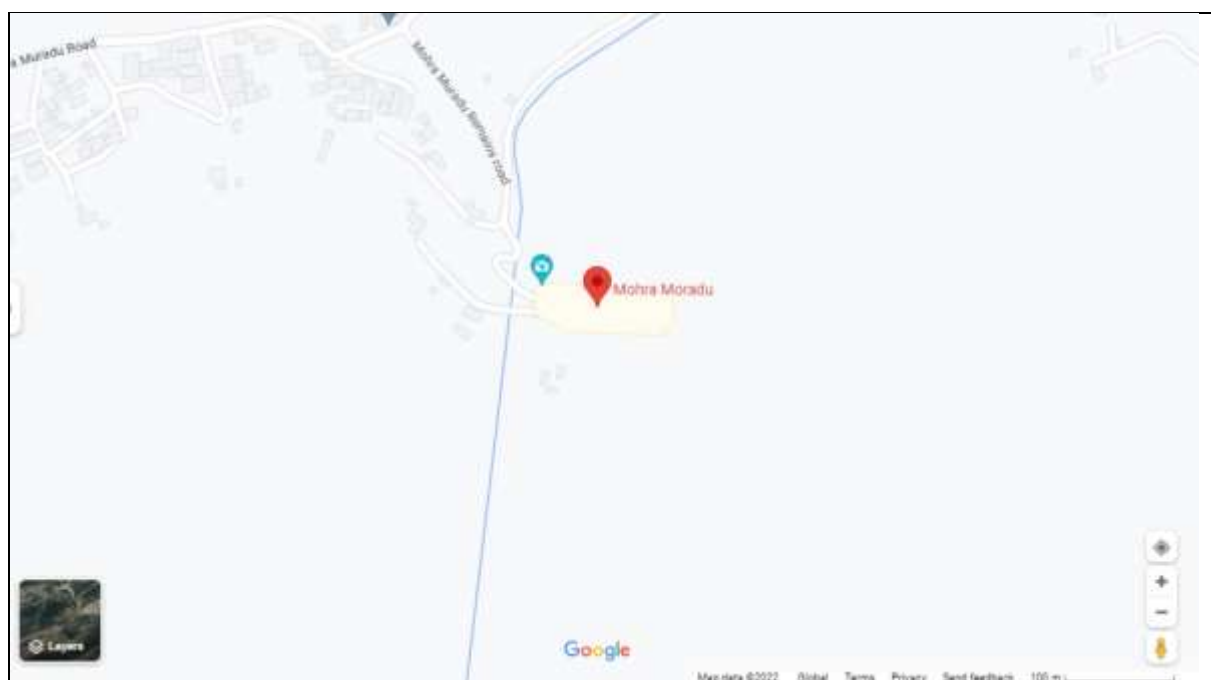
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Source: Sub-project

## 2.6 Mohra Moradu

In 1915 to 1994, under the supervision of Sir John Marshall by Abdul Qadir the ruins of Mohra Muradu were excavated. The ruins of Mohra Muradu consist of two stupas and a buddhistic monastery. The main stupa located here is built on a foundation that is more than 4.75 meters high. The monastery built here was for the teachers and students that consists of 27 rooms around the courtyard with a pool. The large pool was constructed in a square shape that was about half a meter deep and contained water. This pool was used for the ritual washing for the students and teachers living here and the local people

Figure 25: Location map of Mohra Moradu



Source: Google Maps, 2022. [Accessed 09 March 2022].

Figure 26: Different views of Mohra Moradu



Source: This study

### 2.6.1 Proposed Interventions at Mohra Moradu

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Mohra Moradu. The site for new proposed toilet block was selected with the consensus of Archeological Department and it was ensured that new proposed structure has no adverse aesthetic impact on the heritage site. In this particular case, the proposed toilet block is well away from stupa and out of sight while standing next to the stupa. The boundary of Mohra Moradu and the location of the proposed toilet block is shown in Figure 25. The land required for the construction of the toilet block is the property of Archeology Department. A picture of the site proposed for the new toilet block is provided in Figure 28.

Figure 27: Layout of the proposed toilet block at Mohra Moradu

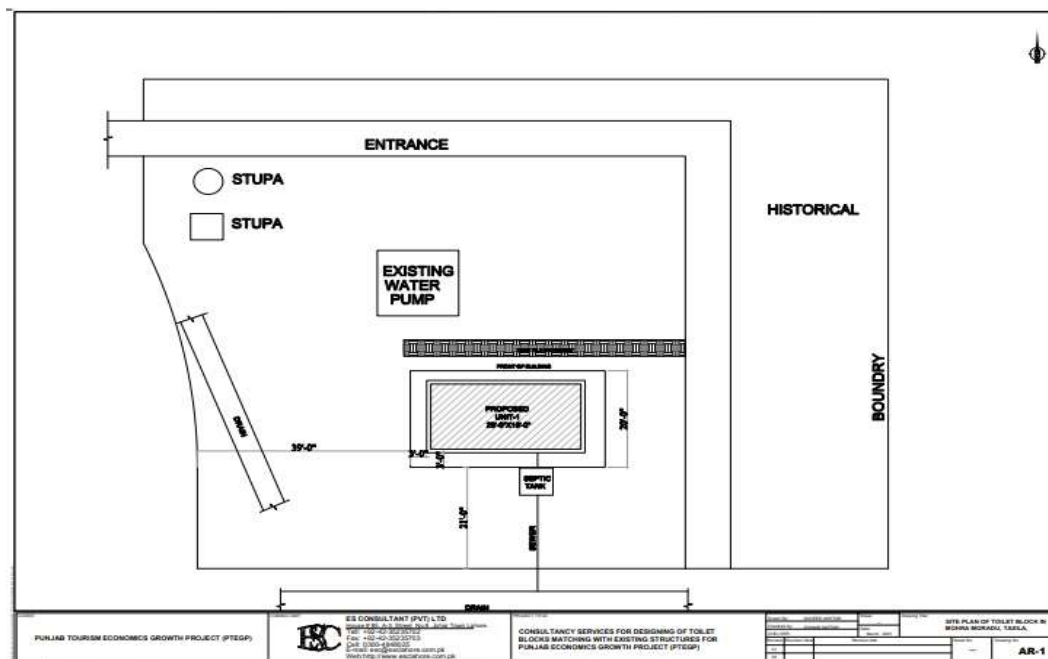


Figure 28: Proposed site for new toilet block at Mohra Moradu





### 2.6.2 Layout Plan of Proposed Toilet Block at Mohra Moradu

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lala Rukh Tomb, Attock. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb, Attock. and presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.6.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in below;

**Table 6: Activities/ tasks and estimated quantities of construction works at Mohra Moradu**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2509.09 Cft.
2	Brickwork	809.3 Cft.
3	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	2487.2kg
4	RCC works in roofs, beams, columns and girders	361.125 sft
5	Ceramic tile laying work	307.688 sft
6	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	82.5 sft.
7	Woodworks/ doors	162.42 sft.
8	Applying weather shield paint (2 coats)	783.125 sft
9	Providing and laying of tuff pavers	300 sft.
10	Electrical work i.e. installation of PVC pipes; copper wires; switches;--- ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	
	Installation of water supply, plumbing and sanitary i.e. washbasins (6--- No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	

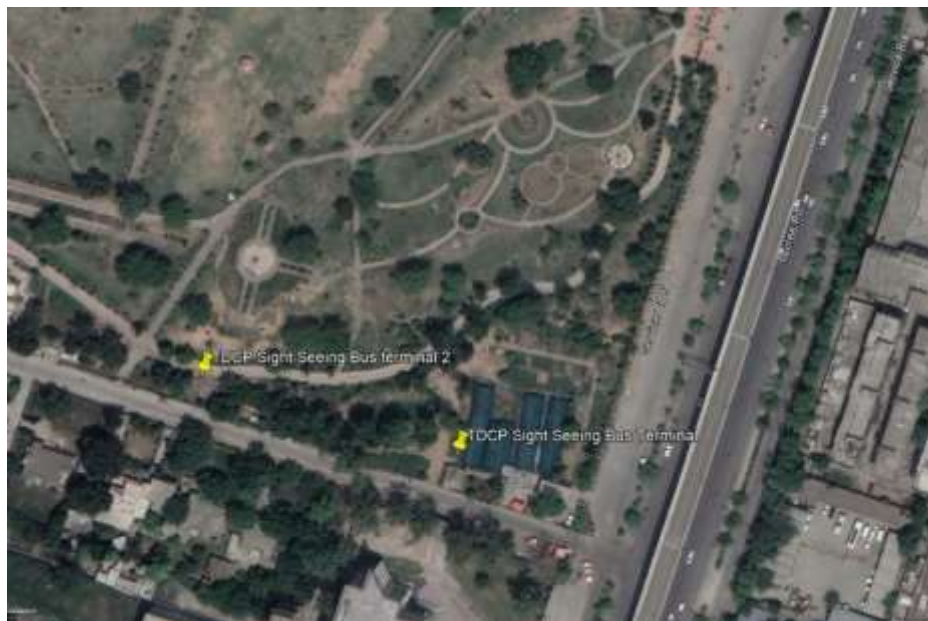
Source: Sub-project

### 2.7 TDCP Sightseeing Terminal (Rawalpindi) Site 1 &2:

Sightseeing Terminal is a bus service designed for the tourist visiting the selected heritage/park sites located in the surrounding area of Rawalpindi. The Tourism Development Corporation of Punjab (TDCP) and Parks & Horticulture Authority (PHA) are responsible for the sightseeing initiative. The authorities held a test run of the tourist service with transport officials, the District Administration of Punjab, the Federal Government, and local and international media representatives. The proposed route of the tourist bus is Allama Iqbal Park, Rawalpindi to Shakarparian Point, Islamabad. The service's objective is to promote tourism and attract local and foreign tourists to enjoy the culture and scenery of the twin cities. The bus has a capacity of 40 tourists; children under five and persons with disabilities will enjoy a free ride. The land required for construction is owned by TDCP so there is no land acquisition required.



**Figure 29: Location map of TDCP Sightseeing Terminal Rawalpindi**



**Figure 30: Different views of Sightseeing Bus Terminal**



### **2.7.1 Proposed Interventions at TDCP sightseeing terminal 1 &2**

The sub-project involves the construction of two (02 No.) new toilet blocks (single stories) in TDCP Sightseeing Terminal. The boundary of Sightseeing and the location of the proposed toilet blocks is shown in Figure 29. The land required for the construction of the toilet block is the property of TDCP. A picture of the site proposed for the new toilet blocks is provided in Figure.



Figure 31: Layout Plan of Proposed toilet block at TDCP Sightseeing Terminal Site 1

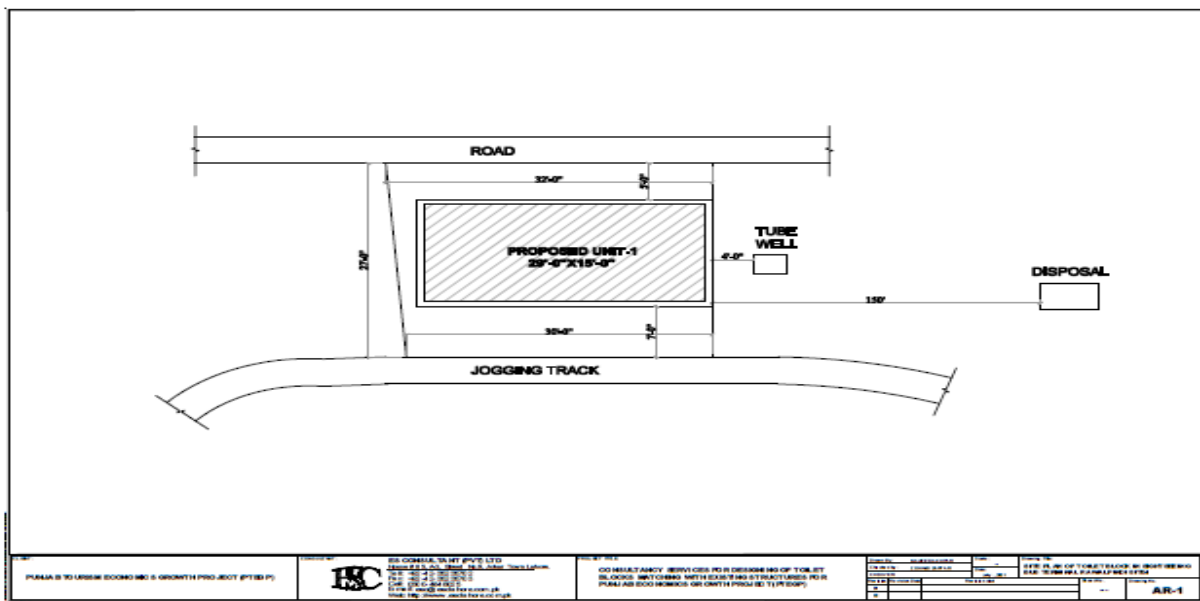


Figure 32: Layout Plan of Proposed toilet block at TDCP Sightseeing Terminal Site 2

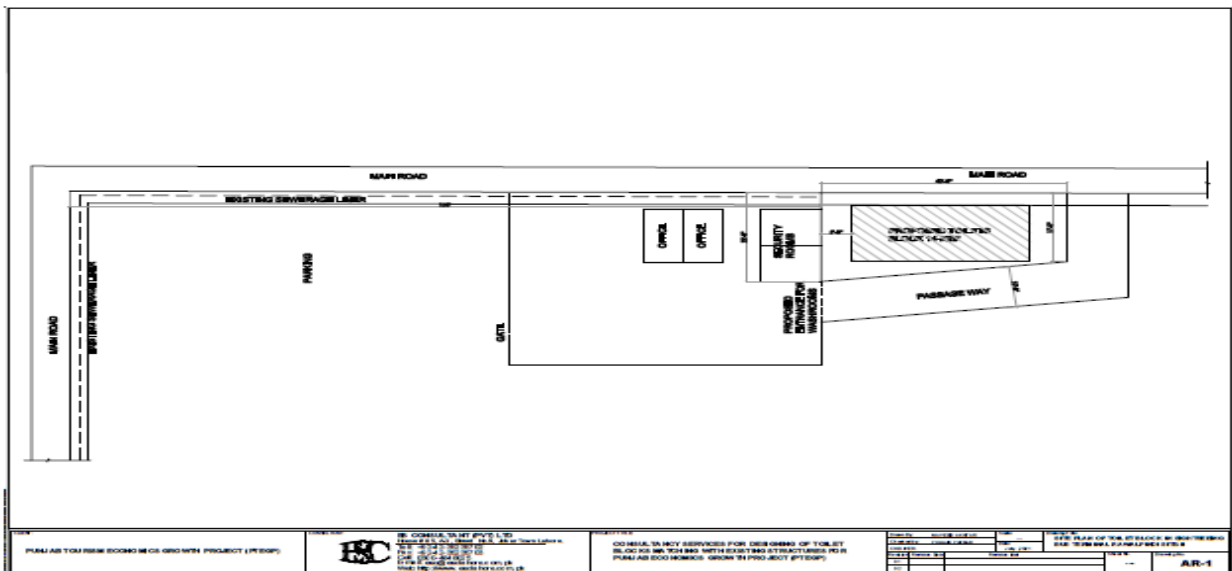


Figure 33: Proposed site for toilet blocks at TDCP sightseeing I & II



### 2.7.2 Layout Plan of Proposed Toilet Block at TDCP sightseeing terminal

The covered area of the new proposed toilet blocks is 1037 sq. ft. is similar to that of Lala Rukh Tomb, Attock. Moreover, the layout plans are given in figure 31 and 32, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb, Attock. and presented in Figure 5, Figure 6 and Figure 7 respectively. Proposed site for toilet block is given in figure 33.

### 2.7.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in table 7;

**Table 7:** Activities/ tasks and estimated quantities of construction works at TDCP Sightseeing Terminal Rawalpindi Site 1 & 2

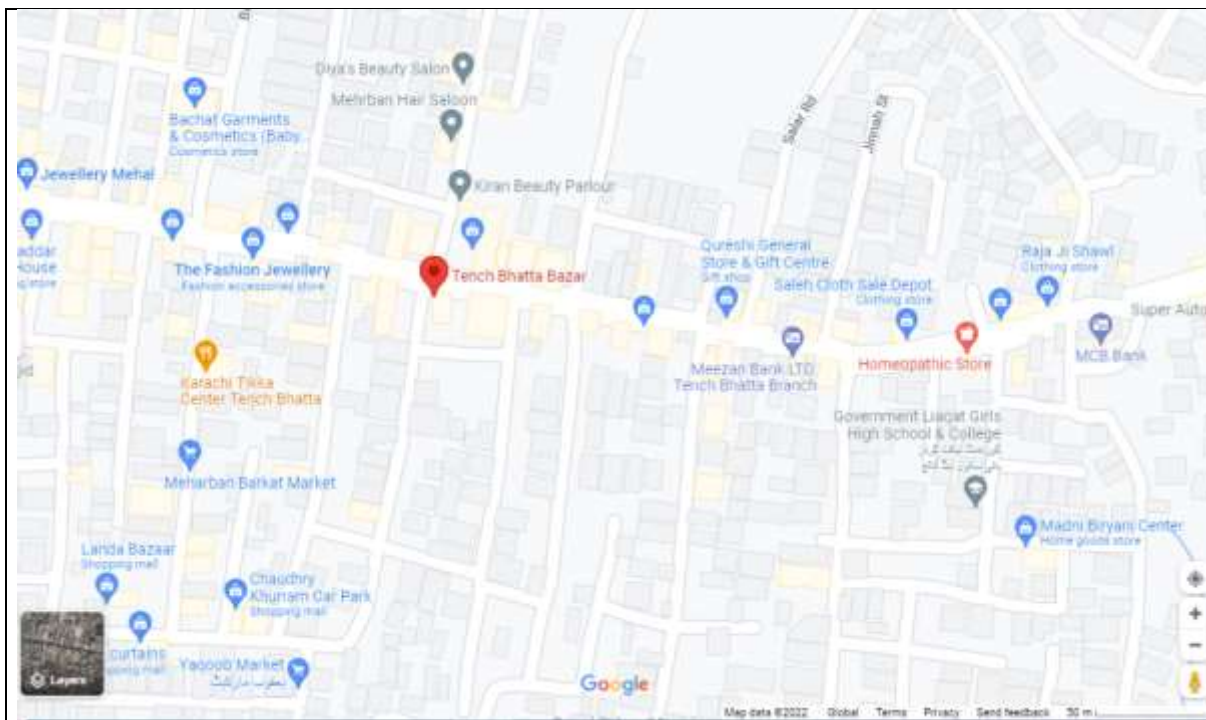
Sr. #	Activity/ Task	Total Quantities
1	Dismantling brick work in lime or cement mortar.	---
2	Dismantling of glaze tile Flooring and Skirting	---
3	Removing a door with Chowkat, windows, skylights, cement and lime plaster, ventilators; scrapping of distemper and paint of wall etc.	---
4	Excavation for foundation maximum up to 5 feet.	3506.538 Cft.
2	Excavation for Soakage pit (9'3"x20') and Septic tank (13'x5'6"x8')	-
5	Brickwork	35994.261 Cft.
6	Installation of steel Chaukat	-
7	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	2320.432 kg
8	RCC works in roofs, beams, columns and girders	757.203 Cft.
9	Ceramic tile laying work	3261.034 sft.
10	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	165 sft.
11	Woodworks/ doors	-
12	Applying emulsion paint (3 coats)	2750.597 stf.
13	Providing and laying of tuff pavers	600 sft.
14	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
15	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

## 2.8 Tench Bhatta Bazar Site I & II

Tench Bhatta is one of the oldest area in Rawalpindi. It is one of the longest markets in continent Asia. It is located near Central Military Hospital and General Headquarters. It is famous for its markets and peoples from surrounding areas visit here for shopping. It has a population of 200,000 which includes a majority of Punjabis/Pothoharis and a minority of Urdu speaking Mohajirs, Kashmiris and Pathans.



**Figure 34: Location map of Tench Bhatta Bazar**



Source: Google Maps, 2022. [Accessed 09 March 2022].

**Figure 35: Different views of Tench Bhatta Bazar**



Source: This study

### **2.8.1 Proposed Interventions at Tench Bhatta Bazar Site I**

The sub-project involves the construction of one (01 No.) new toilet block (single story) in open area in front of Tench Bhatta Bazar Site I. The boundary of Tench Bhatta Bazar Site I & site 2 and the location of the proposed toilet block is shown in figure 36 & 37. There is no removal of any structure require. No permanent adverse environmental & social impact (land acquisition, impact on livelihood or resettlement etc.) anticipated due to the proposed development of new toilet block. The land required for the construction of the toilet block is the property of TDCP. A picture of the site proposed for the new toilet block is provided in figure 38

Figure 36: Location of the proposed toilet block at Tench Bhatta Bazar Site I

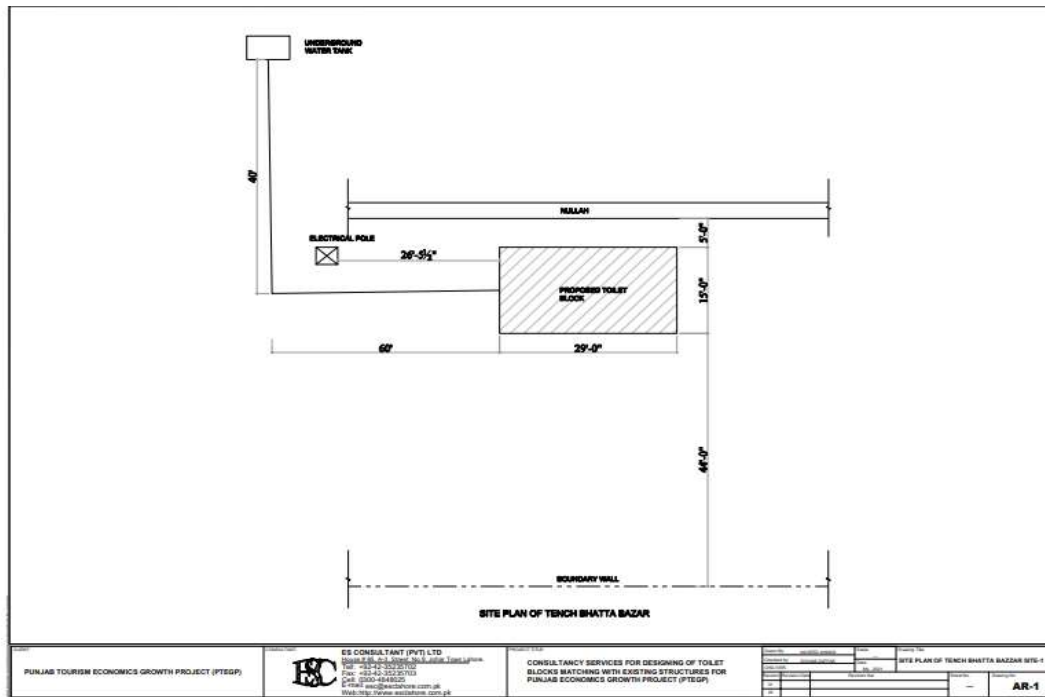


Figure 37: Location of the proposed toilet block at Tench Bhatta Bazar Site II

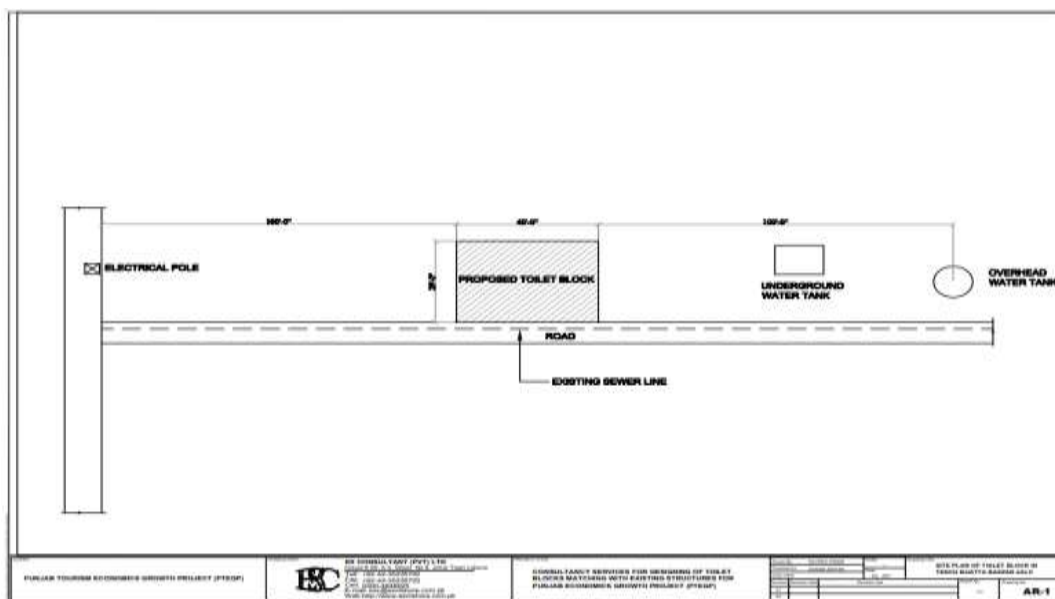




Figure 38: Proposed site for new toilet block at Tench Bhatta Bazar Site I



Figure 39: Proposed site for new toilet block at Tench Bhatta Bazar Site II



### 2.8.2 Layout Plan of Proposed Toilet Block at Tench Bhatta Bazar Site II and Site II

The covered area of the new proposed toilet blocks is 1037 sq. ft each. is similar to that of Lala Rukh Tomb, Attock. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb, Attock and presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.8.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 8 below;

Table 8: Activities/ tasks and estimated quantities of construction works at Tench Bhatta Bazar Site I and Site II

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	3712.82Cft.
3	Brickwork	2707.4 1Cft.
4	Installation of steel Chaukat	107.4sft
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	4908.2 kg
6	RCC works in roofs, beams, columns and girders	881.88 Cft

7	Ceramic tile laying work	3198.38sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	165sft.
9	Woodworks/ doors	324.84 sft.
10	Applying weather shield paint (2 coats)	500.5sft
11	Providing and laying of tuff pavers	600 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project

## 2.9 TDCP Hilltop resort Khajut

Tdcp hilltop resort khajut is located in Murree and features a garden. Featuring room service, this property also welcomes guests with a restaurant and a terrace. Private parking can be arranged at an extra charge. The hotel offers a continental or à la carte breakfast. Bhurban is 8 miles from Tdcp hilltop resort khajut.

Figure 40: Location map of Tdcp Hilltop resort khajut



Source: Google Maps, 2022. [Accessed 09 March 2022].

Figure 41: Different views of Tdcp Hilltop resort khajut



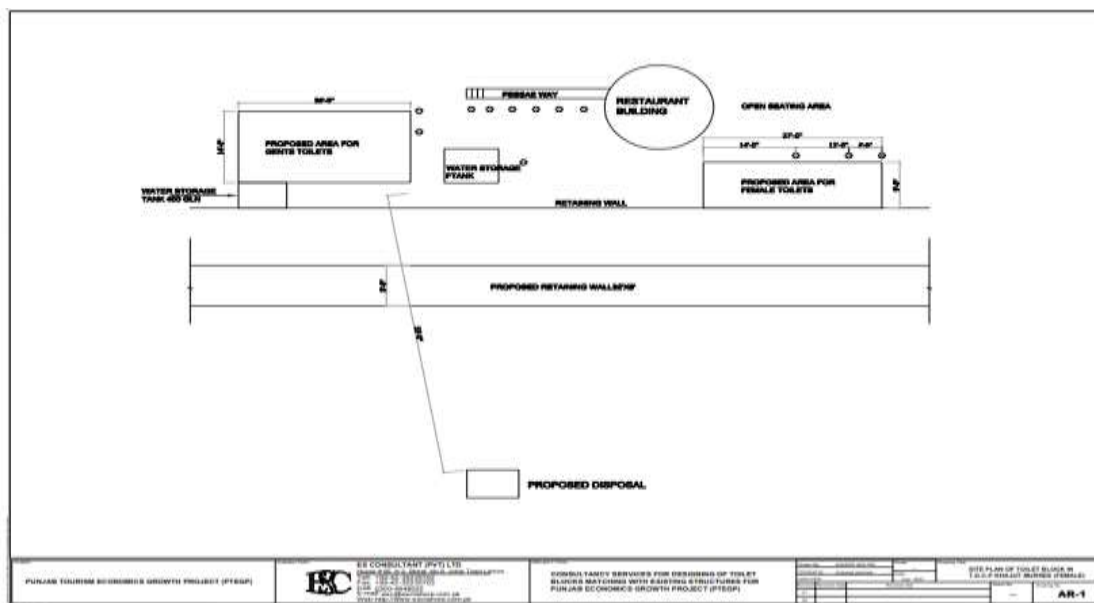
Source: This study

### 2.9.1 Proposed Interventions at TDCP Hilltop resort khajut

The sub-project involves the construction of two (02 No.) new toilet blocks (single storey) in open area in front of Tdcp Hilltop resort khajut. The boundary of Tdcp Hilltop

resort khajut and the location of the proposed toilet block is shown in Figure 42 and 44. The land required for the construction of the toilet block is the property of TDCP. A picture of th site proposed for the new toilet block is provided in Figure 43 and 45.

**Figure 42: Layout of the proposed toilet block (Female) at TDCP Hilltop resort khajut**



**Figure 43: Proposed site for new toilet block(female) at TDCP Hilltop resort khajut**





Figure 44: Location of the proposed toilet block (Male) at TDCP Hilltop resort khajut

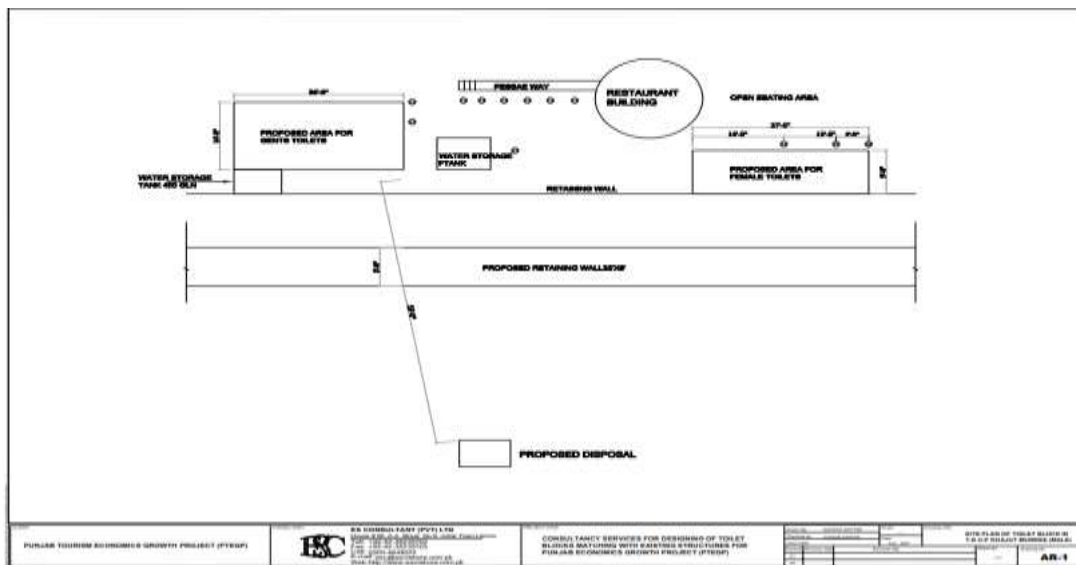


Figure 45: Proposed site for new toilet(male) block at TDCP Hilltop resort khajut



### 2.9.2 Layout Plan of Proposed Toilet Block at TDCP Hilltop resort khajut

Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is presented in Figure 5, Figure 6 and Figure 7 respectively.



**Figure 46: Front Elevation for New Toilet(male) Block at TDCP Hilltop Resort Khajut**



### 2.9.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 9 below;

**Table 9: Activities/ tasks and estimated quantities of construction works at TDCP Hilltop Resort Khajut (male and female)**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	4413.9 Cft.
2	Brickwork	1558.6Cft.
3	Installation of steel Chaukat	183 sft
4	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	902.27 kg
5	RCC works in roofs, beams, columns and girders	381.78 Cft
6	Ceramic tile laying work	2156.64 sft
7	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	136 sft.
8	Woodworks/ doors	213.5 sft.
9	Applying weather shield paint (2 coats)	927.90 sft
10	Providing and laying of tuff pavers	600 sft.
11	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

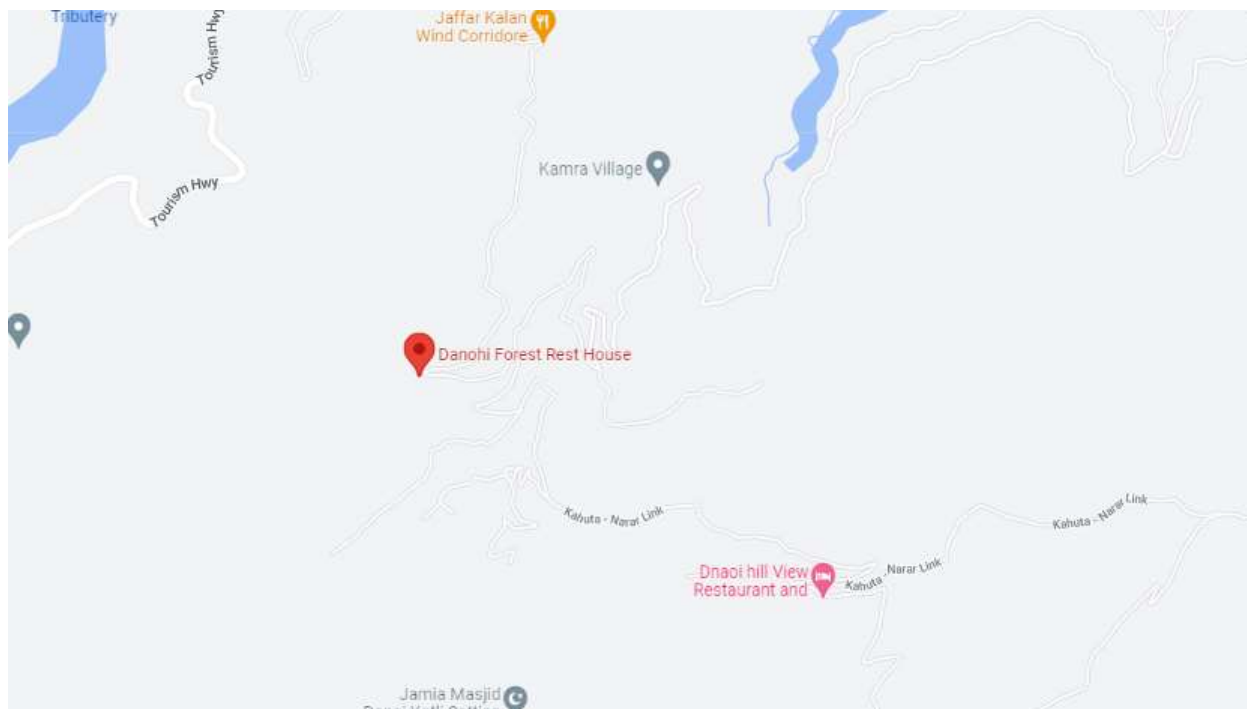
Source: Sub-project

### 2.10 Kotli Sattian (Danohi Rest House):

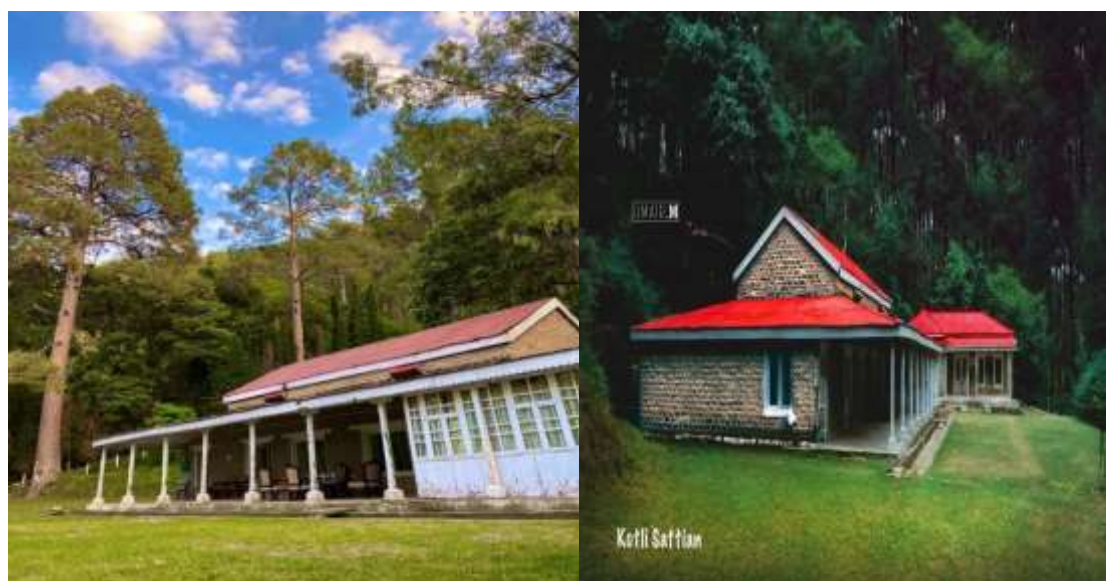
Kotli Sattian is a tehsil (subdivision) of Rawalpindi District in the Punjab province of Pakistan. Its name is derived from the mountain town of Kotli and the Satti tribe. This subdivision is geographically a part of the Murree and Kahuta hills. It was declared a subdivision in 1990 by breaking up 40 villages out of both subdivisions. The people of Kotli Sattian are referred to as Pahari people. The language of this region and of the neighboring areas of Azad Jammu and Kashmir and some areas of east Khyber Pakhtunkhwa is Pahari.

The rest house was built in 1928 and is right in the middle of the beautiful pine forest, during the early land settlement in Punjab. The history of this dated back to annexation of Punjab by British and subsequent and early establishment of forest department in the Punjab province. It is constructed on a leveled piece of clear land surrounded by tall pine trees, and the rest house is situated in a picture postcard setting. You can also spend the night here through an advanced booking from the forest department office near Sawan station, Rawalpindi. Total traveling distance from Islamabad to Danoi rest house is around 60 kilometers, and it is at approximate altitude of 1300 meters.

**Figure 46: Location map of Danoi rest house**



**Figure 47: Different views of Danoi Rest house**



### 2.10.1 Proposed Interventions at Danohi Rest House, Kotli Sattian

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Danohi Rest House. The boundary of Danohi rest house and the location of the proposed toilet block is shown in Figure 50. The land required for the construction of the toilet block is the property of Archeology Department. A picture of the site proposed for the new toilet block is provided in Figure 51.

Figure 48: Layout of the proposed toilet block at Danohi rest house, Kotli Sattian

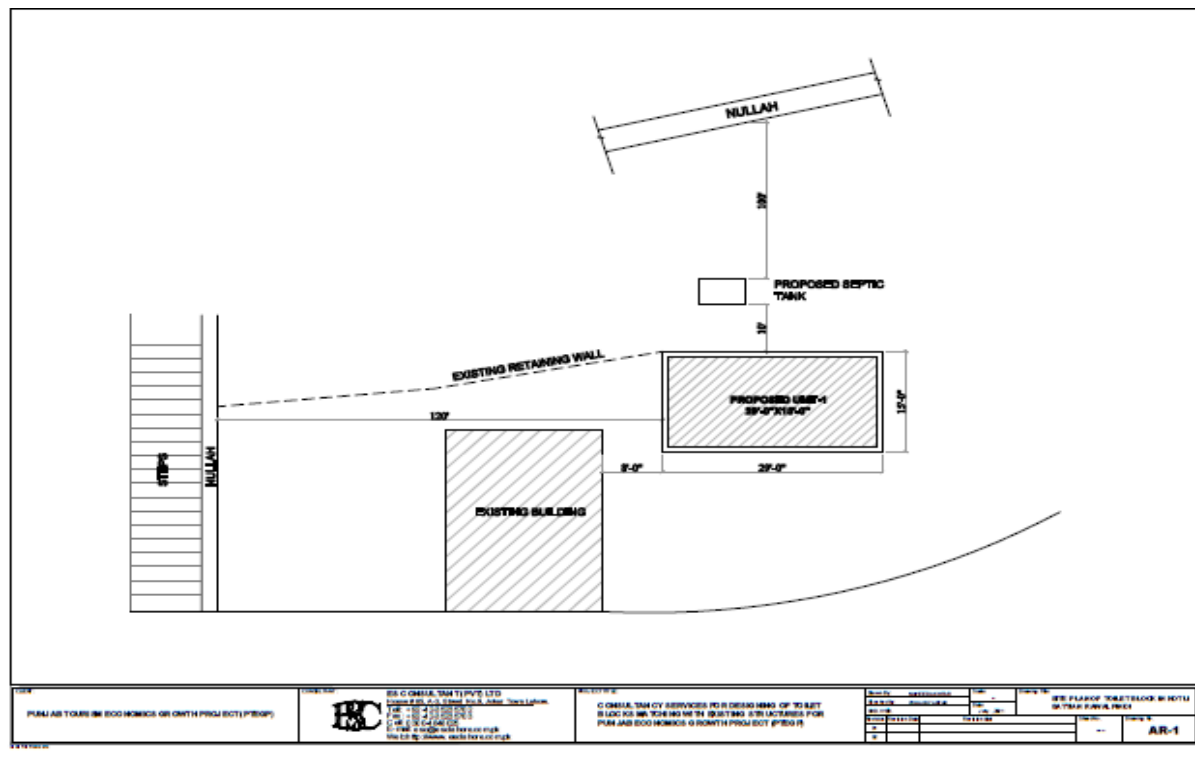


Figure 49: Proposed site for new toilet block at Danohi rest house Kotali Sattiya



### 2.10.2 Layout Plan of Proposed Toilet Block at Danohi Rest House, Kotli Sattian

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lal Rukh Tomb. Moreover, the layout plan, front elevation and the 3D elevation of the

proposed toilet block is also similar to Lala Rukh Tomb and presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.10.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 10 below;

**Table 10: Activities/ tasks and estimated quantities of construction works at Dhanoi Rest house**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2150.59Cft.
3	Brickwork	1417.58 Cft.
4	Installation of steel Chaukat	120.71 Sft
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	696.33 kg
6	RCC works in roofs, beams, columns and girders	66.57 Cft
7	Ceramic tile laying work	1613.19 sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	82.50 sft.
9	Woodworks/ doors	475.88 sft.
10	Fiber glass door	169.42 sft
11	Applying weather shield paint (2 coats)	791.13 sft
12	Providing and laying of tuff pavers	300 sft.
13	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

### 2.11 GPO chowk

General Post Office located at Mall Road Murree Hills, Punjab, Pakistan. It was established as Post Office at Lower Mall in 1867. The present land measuring 0.55 acres was purchased in 1904 from Raja of Kashmir state. <sup>6</sup>The GPO building is situated at the beginning of The Mall. This is where the Murree Mall started and was originally developed till the church, both being prominent old landmarks.<sup>7</sup>

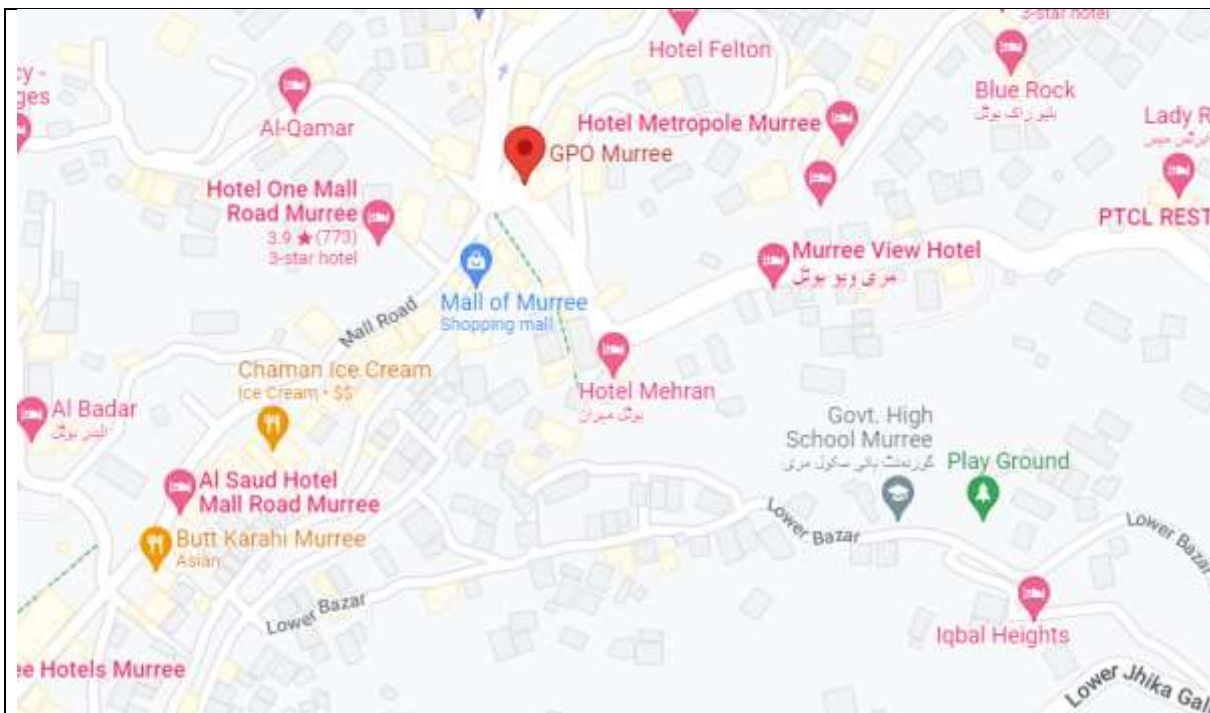
<sup>6</sup> <http://speakingstones1.blogspot.com/2019/05/general-post-office-murree-hills-punjab.html>

<sup>7</sup>





Figure 50: Location map of GPO chowk, Murree



Source: Google Maps, 2022. [Accessed 09 March 2022].

Figure 51: Different views of GPO Chowk



Source: This study

### 2.11.1 Proposed Interventions at GPO chowk

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of TDCP information office near GPO chowk, Murree. The and the location of the proposed toilet block is shown in Figure 14. The land required for the construction of the toilet block is the property of Archeology Department. A picture of the site proposed for the new toilet block is provided in Figure 15.

Figure 52: Location of the proposed toilet block at GPO chowk

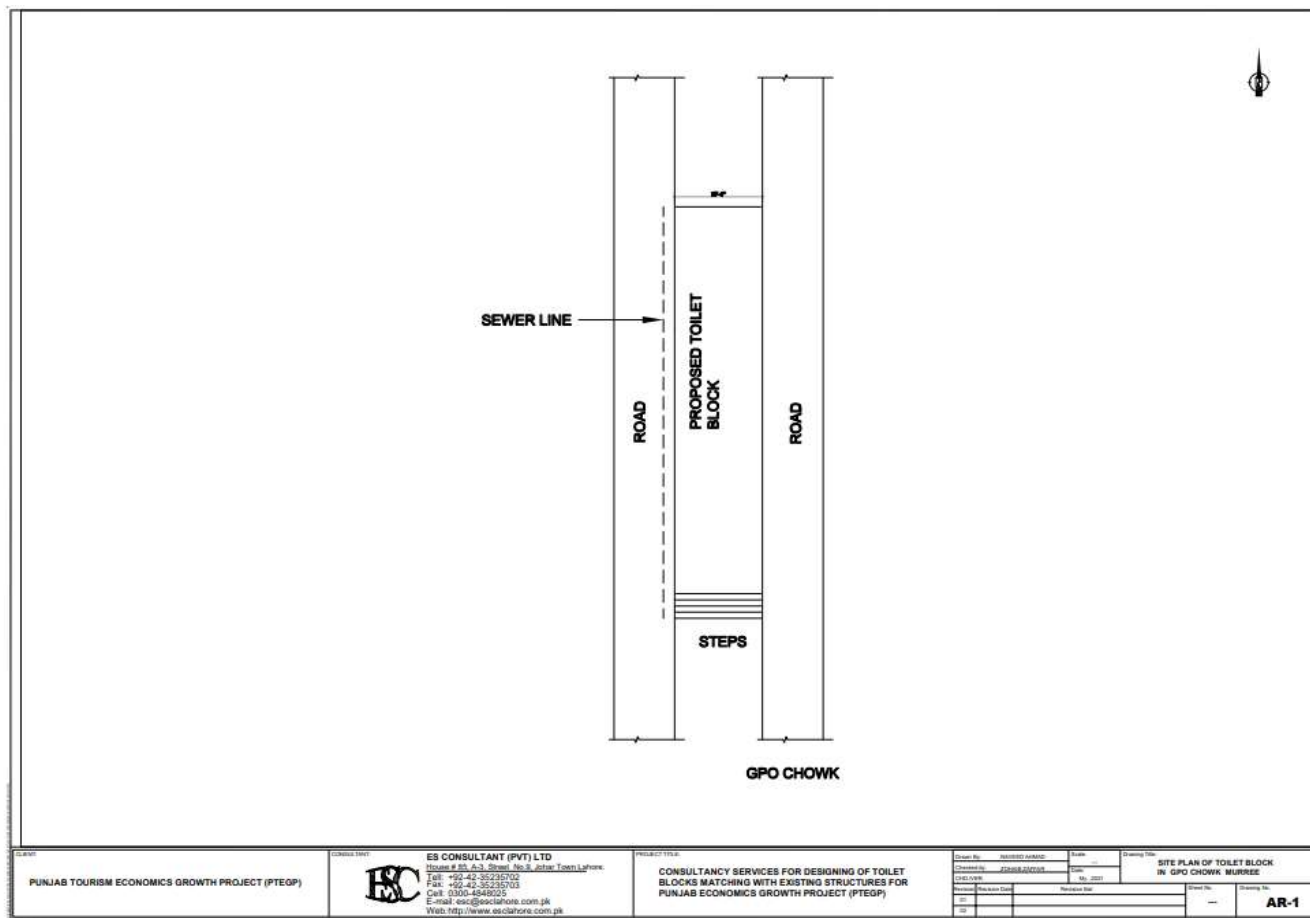


Figure 53: Proposed site for new toilet block at GPO chowk



Figure 54: Architectural Plan of Toilet Blocks at GPO Chowk, Muree

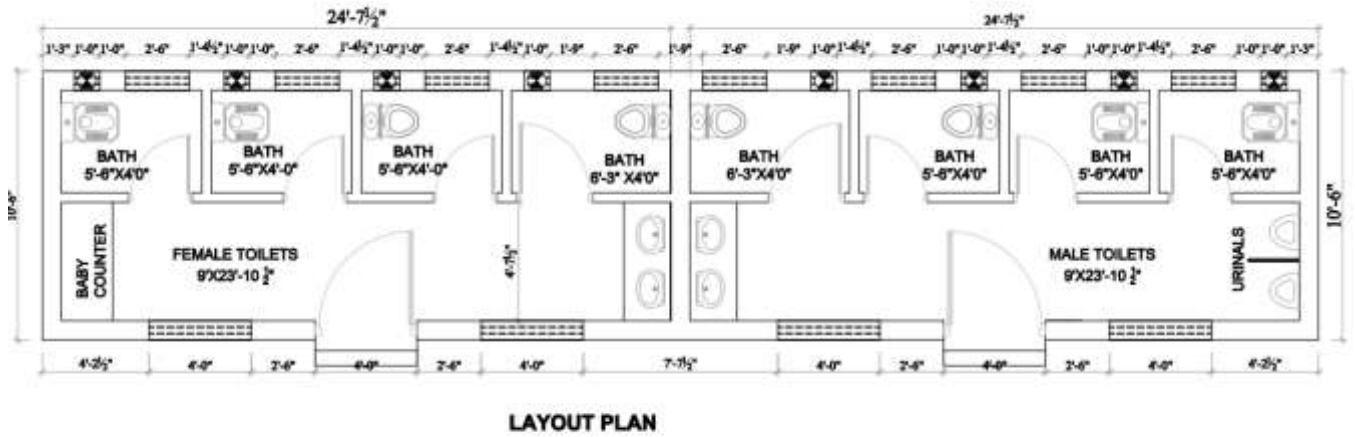


Figure 55: Front Elevation of toilet block at GPO Chowk, Muree

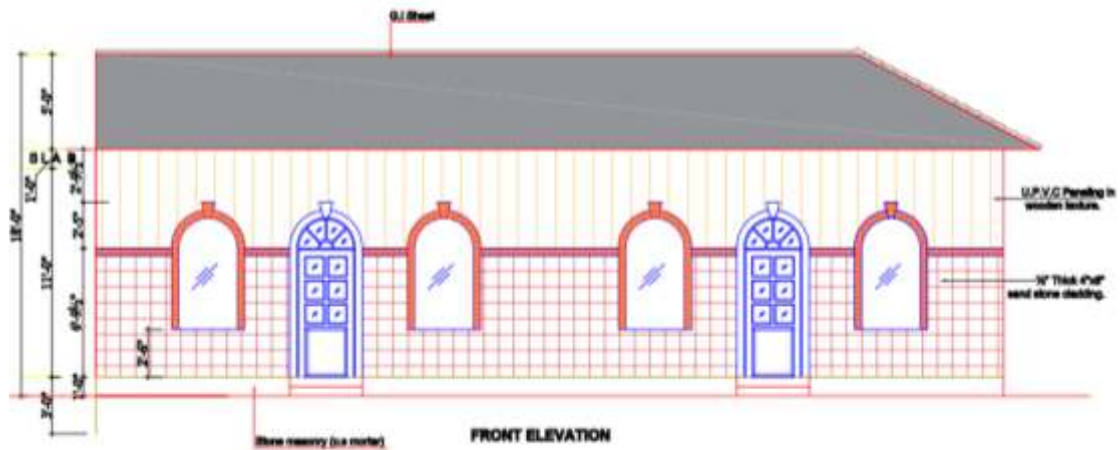


Figure 56: Front Elevation of Toilet Block at GPO chowk, Muree





### 2.11.2 Layout Plan of Proposed Toilet Block at GPO Chowk

The layout plan, front elevation and the 3D elevation of the proposed toilet block is presented in Figure 56, Figure 57 and Figure 58 respectively.

### 2.11.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 11 below;

**Table 11: Activities/ tasks and estimated quantities of construction works at GPO chowk**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2261 Cft.
3	Brickwork	1496.02 Cft.
4	PVC coated Chaukat	177.6 Sft
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	261.97 kg
6	RCC works in roofs, beams, columns and girders	202.97 Cft
7	Ceramic tile laying work	1671.44 sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	153.12sft.
9	Woodworks	954 sft.
	Fiber glass doors	171.60sft
10	Applying weather shield paint (2 coats)	429.75 sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project

## 2.12 PATRIATA

Patriata is famous for its chairlift which is located on walk distance, it's a world-class ski lift managed as an international standard. Patriata is a quiet retreat at the highest point of Murree Hills which consequently is the highest point of Punjab as well. Patriata has a breathtaking landscape. High forested ridges and deep intersecting valleys with terraced slopes offer magnificent views of this naturally beautiful area.





**Figure 57: Location map of Toilet Blocks at Patriata Hill station Muree**



Source: Google Maps, 2022. [Accessed 09 March 2022].

**Figure 58: Different views of patriate chair lift and cable car**



Source: This study

### **2.12.1 Proposed Interventions at Patriata Hill Station**

The sub-project involves the construction of one (01 No.) new toilet block (single storey) each at start point mid-point and end point of the patriate chair lift and cable car site. In open area nearby the three points at patriata and the location of the proposed toilet block is shown in Figure 14. The land required for the construction of the toilet block is the property of TDCP. A picture of the site proposed for the new toilet block is provided in Figure 59

Figure 59: Location of the proposed toilet block at Starting point at Patriata Hill station Muree

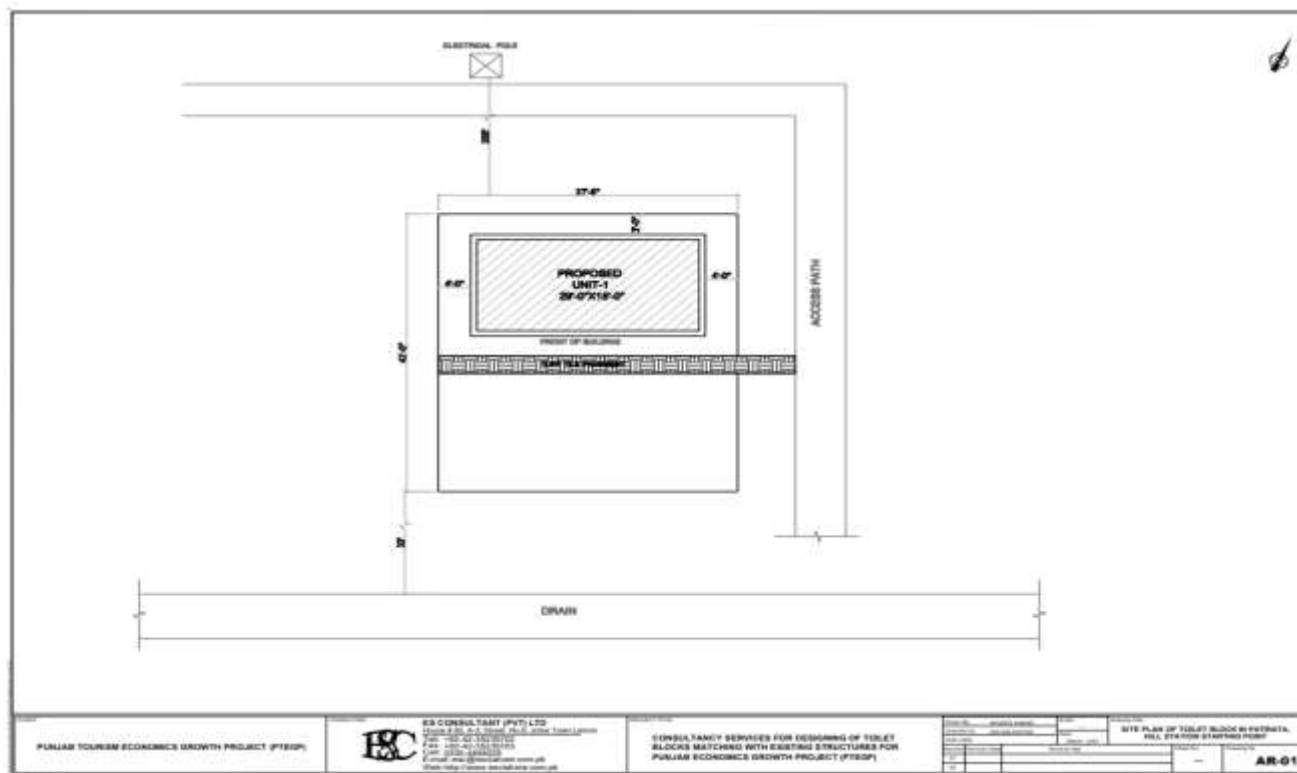


Figure 60: Location of the proposed toilet block at Mid-point at Patriata Hill station Muree

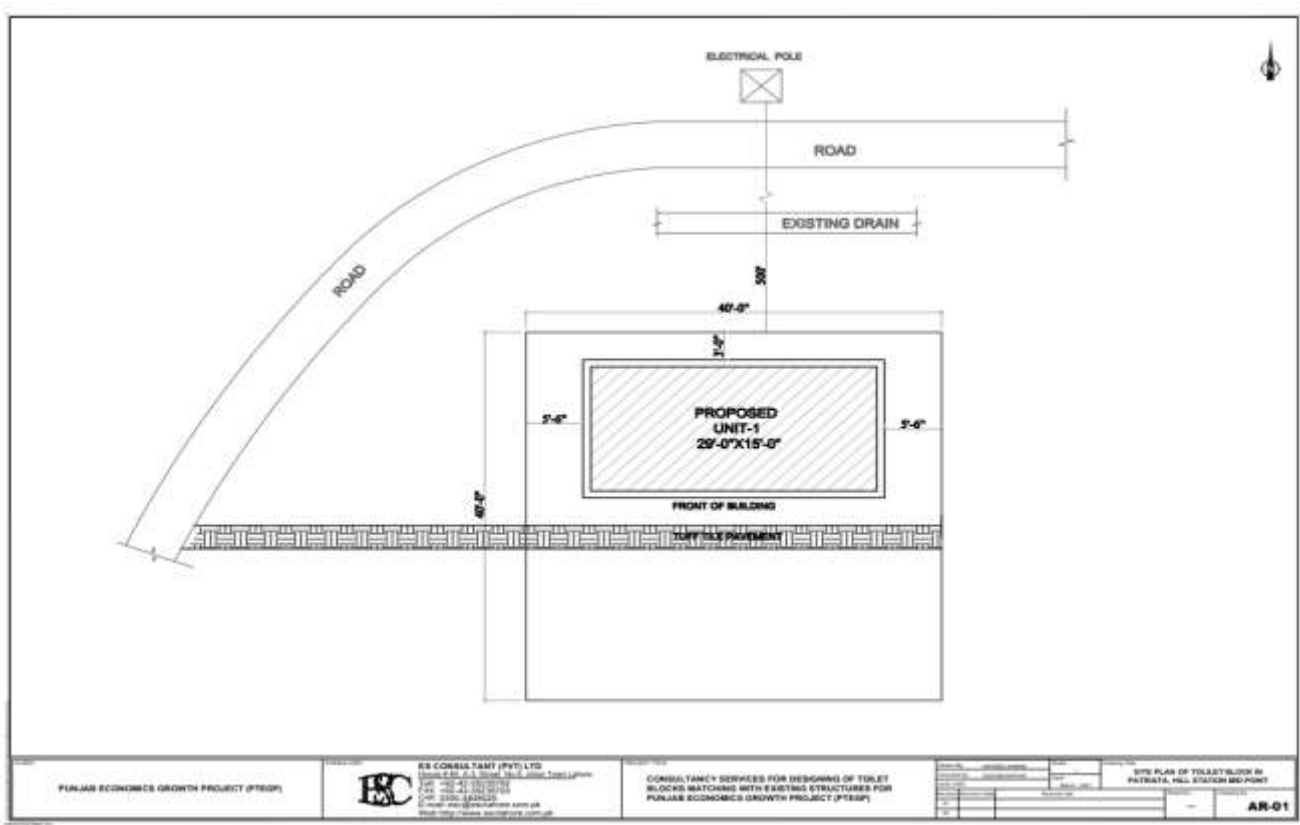




Figure 61: Location of the proposed toilet block at Top point at Patriata Hill station Muree

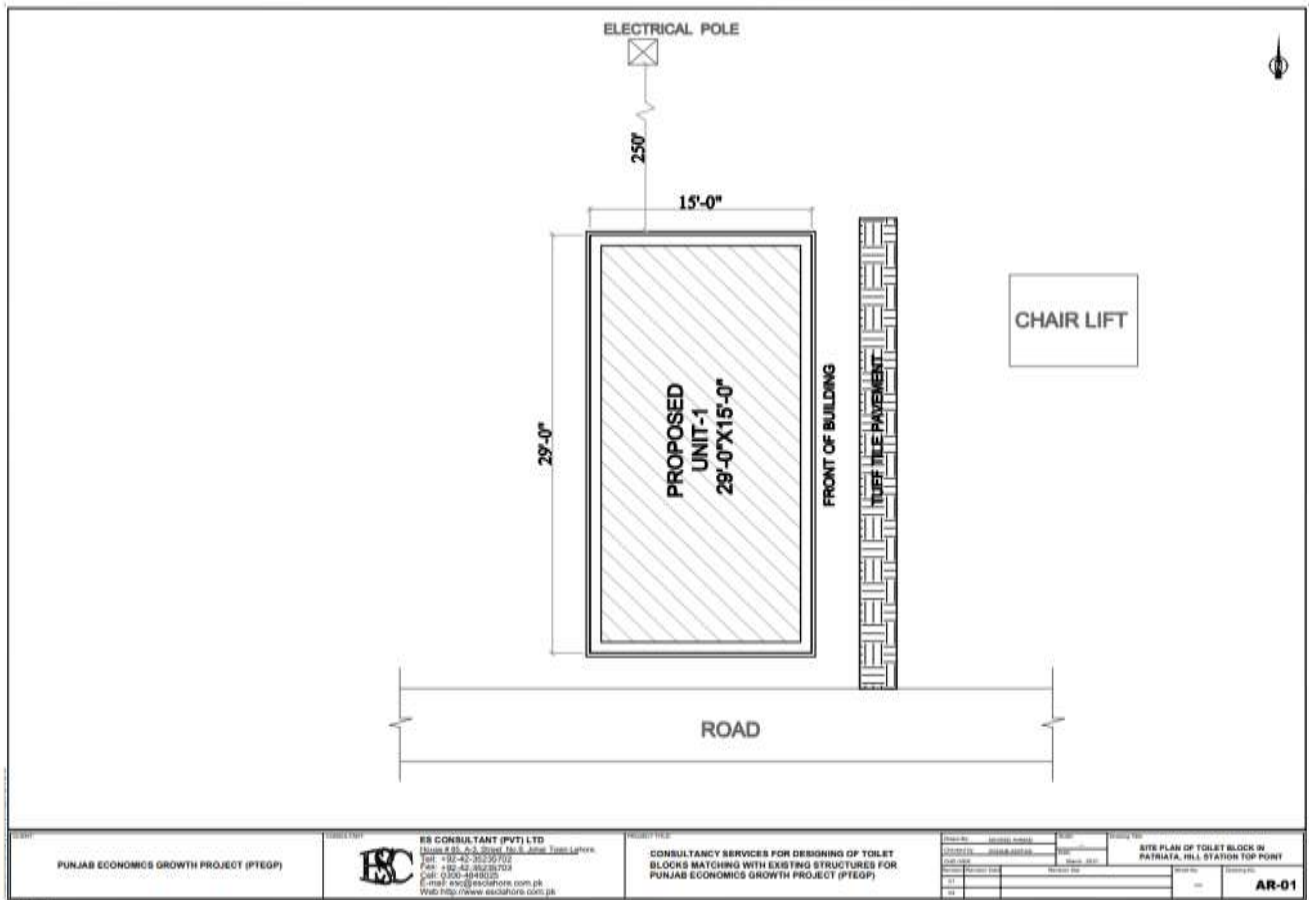


Figure 62: Proposed site for new toilet block at Partrata Hill Station (starting Point)



**Figure 63: Proposed site for new toilet block at Partrata Hill Station (mid-Point)**



**Figure 64: Proposed site for new toilet block at Partrata Hill Station (end Point)**



### **2.12.2 Layout Plan of Proposed Toilet Blocks at Patriatae Hill Station Murree**

The covered area of the new proposed toilet block at all three sites is 1037 sq. ft. is similar to that of GPO chowk. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to GPO chowk and presented in Figure 56, Figure 57 and Figure 58 respectively. The picture of proposed site for toilet blocks is shown in figure 64, 65 and 66

### **2.12.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 12;



**Table 12: Activities/ tasks and estimated quantities of construction works at Patriata, Murree**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	6450 Cft.
3	Brickwork	4252.74 Cft.
4	Installation of fiber glass Chaukat	487.26 Cft.
5	Installation of fiber glass doors	161.13
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	2088.99 kg
6	RCC works in roofs, beams, columns and girders	470.28 cft
7	Glazed tile laying work	4797.57 sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	247.5 sft.
9	Woodworks/ doors	687.38 sft.
10	Applying weather shield paint (2 coats)	2373.39 sft
11	Providing and laying of tuff pavers	900 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

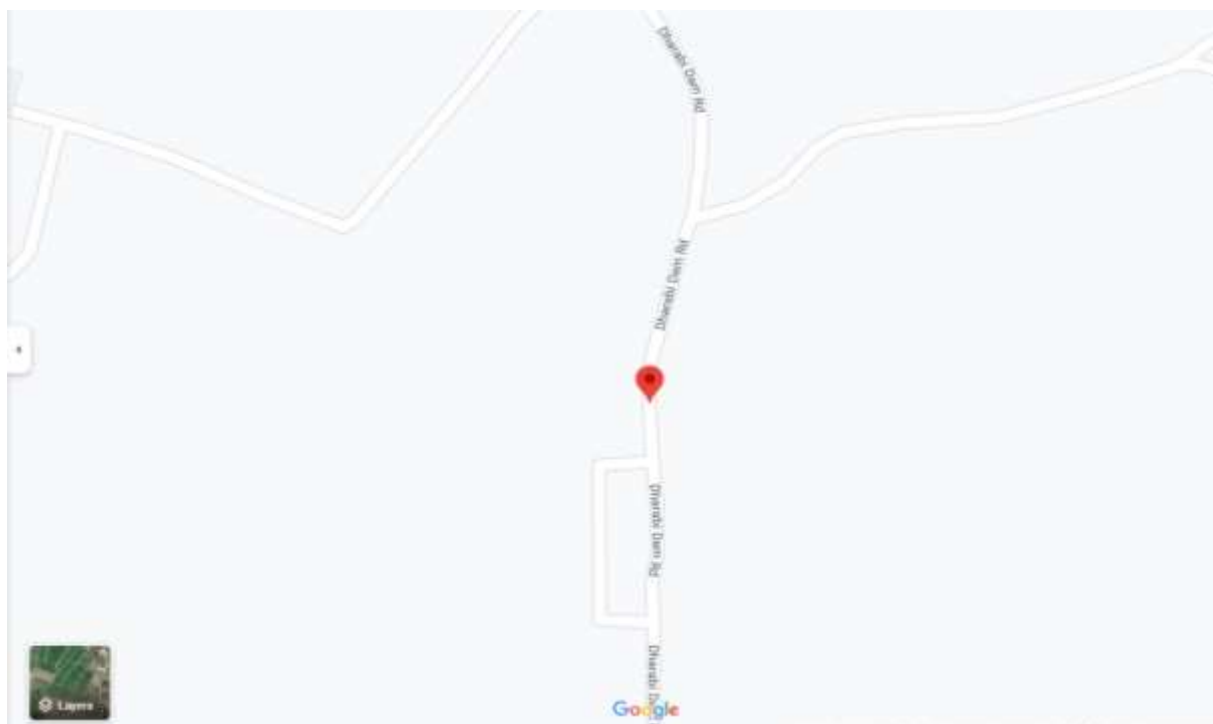
Source: Sub-project

### 2.13 Dharabi Dam, Chakwal

A small river name "Dharab" passes by and named after the village. It is a tributary of Soan River out fall in Indus River at a distance of about 5 kilometres (3.1 mi) from village Balkasar of tehsil and district Chakwal. The M2 motorway between Lahore and Islamabad pass over this river

A water reservoir was constructed on this river. Dharabi Dam which is supposed to be the largest water reservoir in the district has the capacity of storing 37,000 acre feet of water but it may not serve the purpose as lands it was supposed to irrigate lie at a higher altitude.

**Figure 65:Location map of Dharabi Dam, Chakwal**



**Figure 66: Different views of Dharabi Dam, Chakwal**



Source: This study

### **2.13.1 Proposed Interventions at Dharabi Dam, Chakwal.**

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Dhok Dharabi Dam. The boundary Dharabi dam and the location of the proposed toilet block is shown in Figure 69 property of A picture of the site proposed for the new toilet block is provided in Figure 70

Figure 67: Location of the proposed toilet block at Dharabi lake, Chakwa

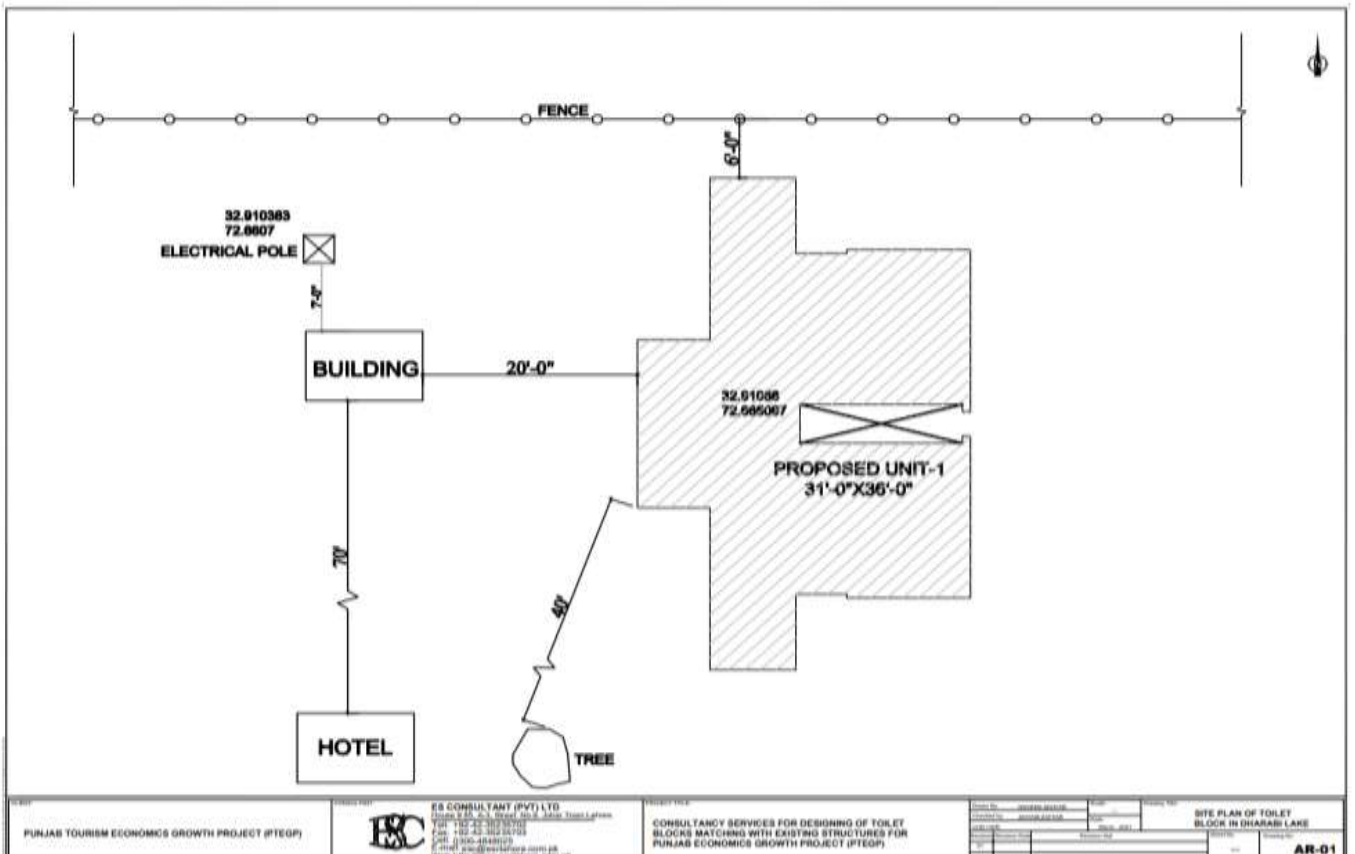


Figure 68: Proposed site for new toilet block at Dharabi lake, Chakwal



### 2.13.2 Layout Plan of Proposed Toilet Block at Dharabi lake dam Chakwal.

The covered area of the new proposed toilet block is 1037 ft. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb and presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.13.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 13 ;

**Table 13: Activities/ tasks and estimated quantities of construction works at Dharabi Lake**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2570.44Cft.
3	Brickwork	359,0 Cft.
4	Installation of steel Chaukat	1 No.
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	340.10 kg
6	RCC works in roofs, beams, columns and girders	367.25Cft
7	Ceramic tile laying work	99.7 sft
8	Providing and fixing aluminum fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	99.00sft.
9	Woodworks/ doors	64 sft.
10	Applying weather shield paint (2 coats)	2095.881sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e., washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

### 2.14 Dhok Talian, Chakwal

Dhok Tahlian Dam is located near village Dhok Tahlian 20 km away from Chakwal District Punjab, Pakistan. The dam is 83.45 ft high and has a gross reservoir capacity of 1,938,000 m<sup>3</sup>. The dam was completed in 2001 at a cost of PKR 20.13 million. The reservoir has a gross command area of 323.88 km<sup>2</sup>



**Figure 69: Location map of Dhok Talian,Chakwal**



**Figure 70: Different views of Dhok Talian**

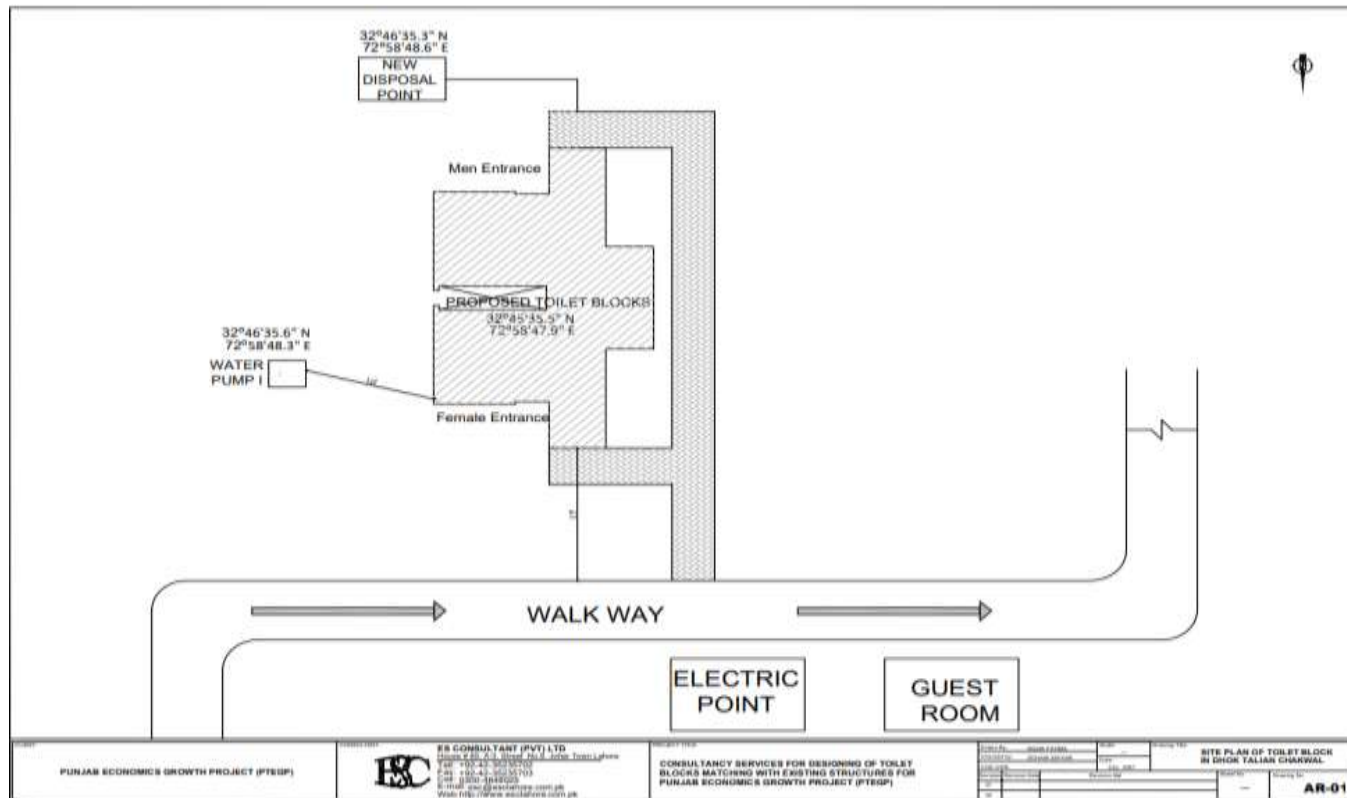


Source: This study

### **2.14.1 Proposed Interventions at Dhok Talian, Chakwal.**

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Dhok Talian Dam. The boundary Dhok Talian and the location of the proposed toilet block is shown in Figure 73. A picture of the site proposed for the new toilet block is provided in Figure 74.

**Figure 71: Location of the proposed toilet lock at Dhok Talian, Chakwal**



**Figure 72: Proposed site for new toilet block at Dhok talian, Chakwal**



**2.14.2 Layout Plan of Proposed Toilet Block at Dhok Talian, Chakwal.**

The covered area of the new proposed toilet block is 1037 ft. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb and presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.14.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 14 below;

**Table 14: Activities/ tasks and estimated quantities of construction works at Dhok Talian**

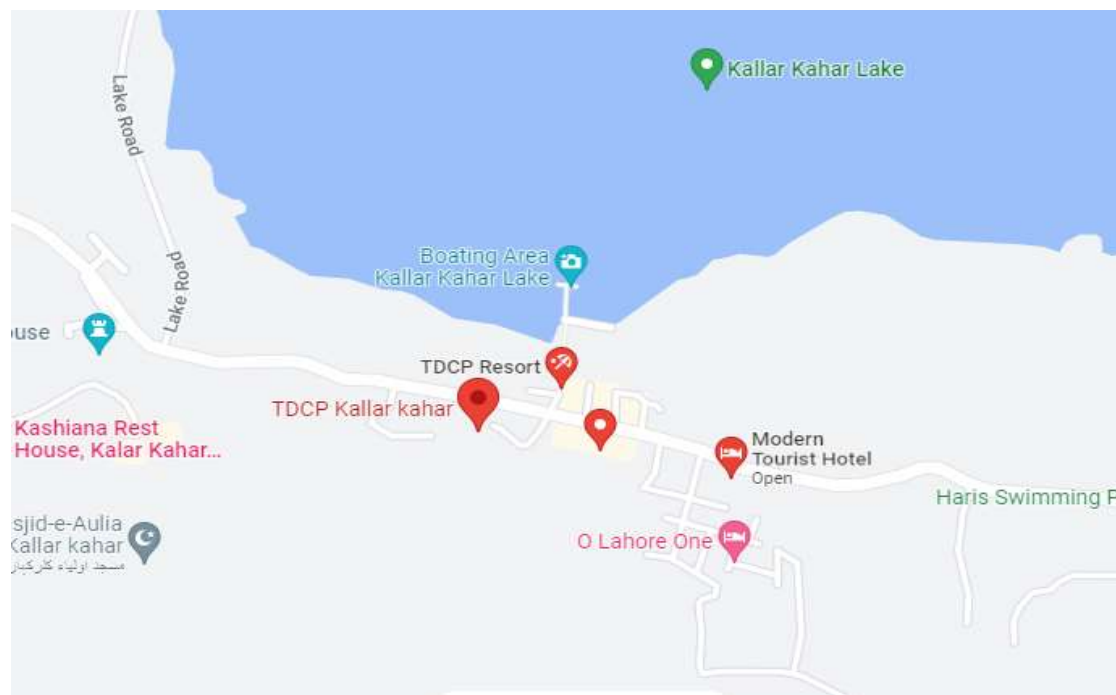
Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2570.44Cft.
3	Brickwork	359,0 Cft.
4	Installation of steel Chaukat	1 No.
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	340.10 kg
6	RCC works in roofs, beams, columns and girders	367.25Cft
7	Ceramic tile laying work	99.7 sft
8	Providing and fixing aluminum fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	99.00sft.
9	Woodworks/ doors	64 sft.
10	Applying weather shield paint (2 coats)	2095.881sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e., washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project

### 2.15 Kallar Kahar, Chakwal

Kallar Kahar Tehsil is an administrative subdivision (tehsil) of Chakwal District in the Punjab province of Pakistan. Tehsil headquarters are in Kallar Kahar city. The area is also known for its peacocks and a salt water natural lake. One of the reputed cadet colleges is also stationed in this town. Population in Kallar Kahar town is 24,283 per the 2017 census.

**Figure 73: Location map of Kallar kahar,Chakwal**







**Figure 76: Proposed site for renovation of existing toilet block at TDC Kalar Kahar, Chakwal**



### **2.15.2 Layout Plan of Proposed Toilet Block at Kalar Kahar, Chakwal.**

The covered area of the new proposed toilet block is 1037 ft. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb and presented in Figure 5, Figure 6 and Figure 7 respectively.

### **2.15.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 15 below;

**Table 15: Activities/ tasks and estimated quantities of construction works at Kalar Kahar,Chakwal**

<b>Sr. #</b>	<b>Activity/ Task</b>	<b>Total Quantities</b>
1	Dismantling brick work in lime or cement mortar.	---
2	Dismantling of glaze tile Flooring and Skirting	---
3	Removing a door with Chowkat, windows, skylights, cement and lime plaster, ventilators; scrapping of distemper and paint of wall etc.	---
4	Excavation for foundation maximum up to 5 feet.	980.459Cft.
5	Brickwork	3330.94Cft.
6	Installation of steel Chaukat	1 No.
7	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	826.816 kg
8	RCC works in roofs, beams, columns and girders	299.469Cft
9	Ceramic tile laying work	741.9 sft
10	Providing and fixing aluminum fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	400.000 sft.
11	Woodworks/ doors	64 sft.
12	Applying weather shield paint (2 coats)	180.1sft
13	Providing and laying of tuff pavers	300 sft.
14	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---

15	Installation of water supply, plumbing and sanitary i.e., washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---
----	---	-----

Source: Sub-project

### 2.16 Katas Raj

The Katas Raj Temples near Chakwal in Punjab province of Pakistan are attributed to the eras of the Hindu Shahis (kings) dating from about 615-950 CE and are dedicated to Lord Shiva. As such they constitute one of the most important Hindu pilgrimage sites in Pakistan and are still in use to this day by members of the Hindu community. Prior to its Hindu roots the site held a Buddhist stupa said to have towered 61 m (200 ft) in height with ten streams around it as described by Alexander Cunningham, the first Director General of the Archaeological Survey of India,

Figure 77: Location map of Katas Raj, Chakwal

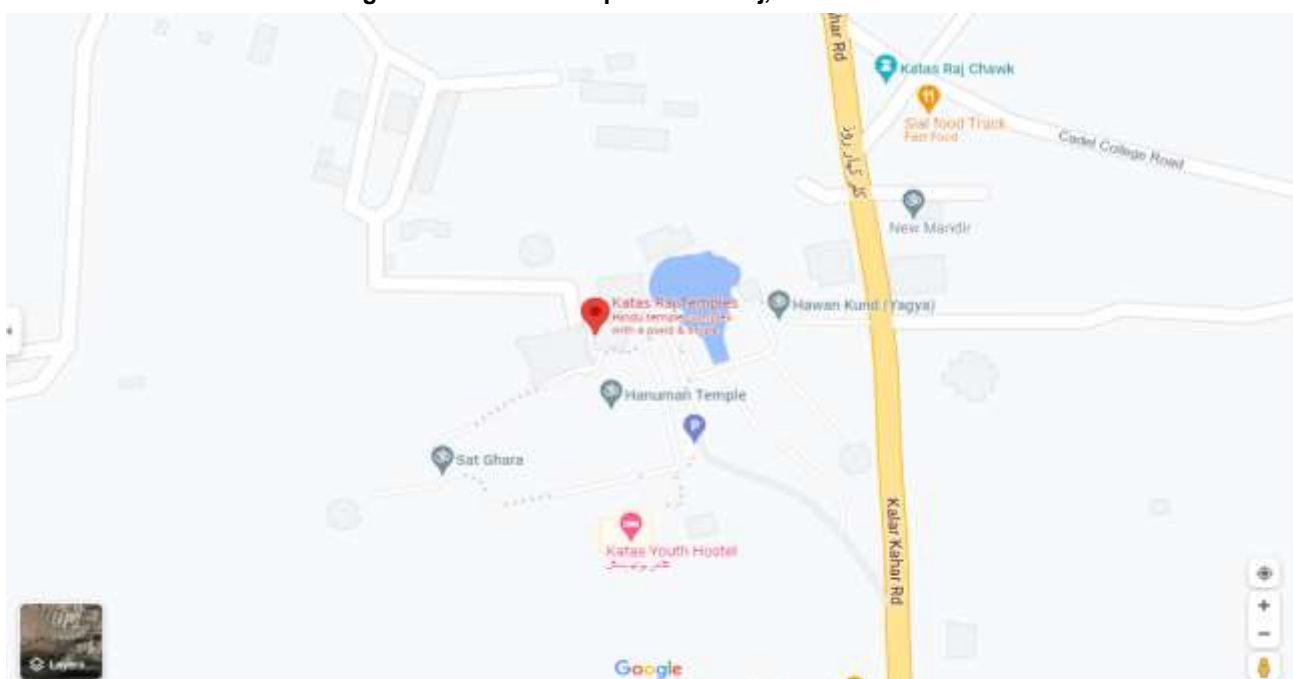


Figure 78: Different views of Katas Raj

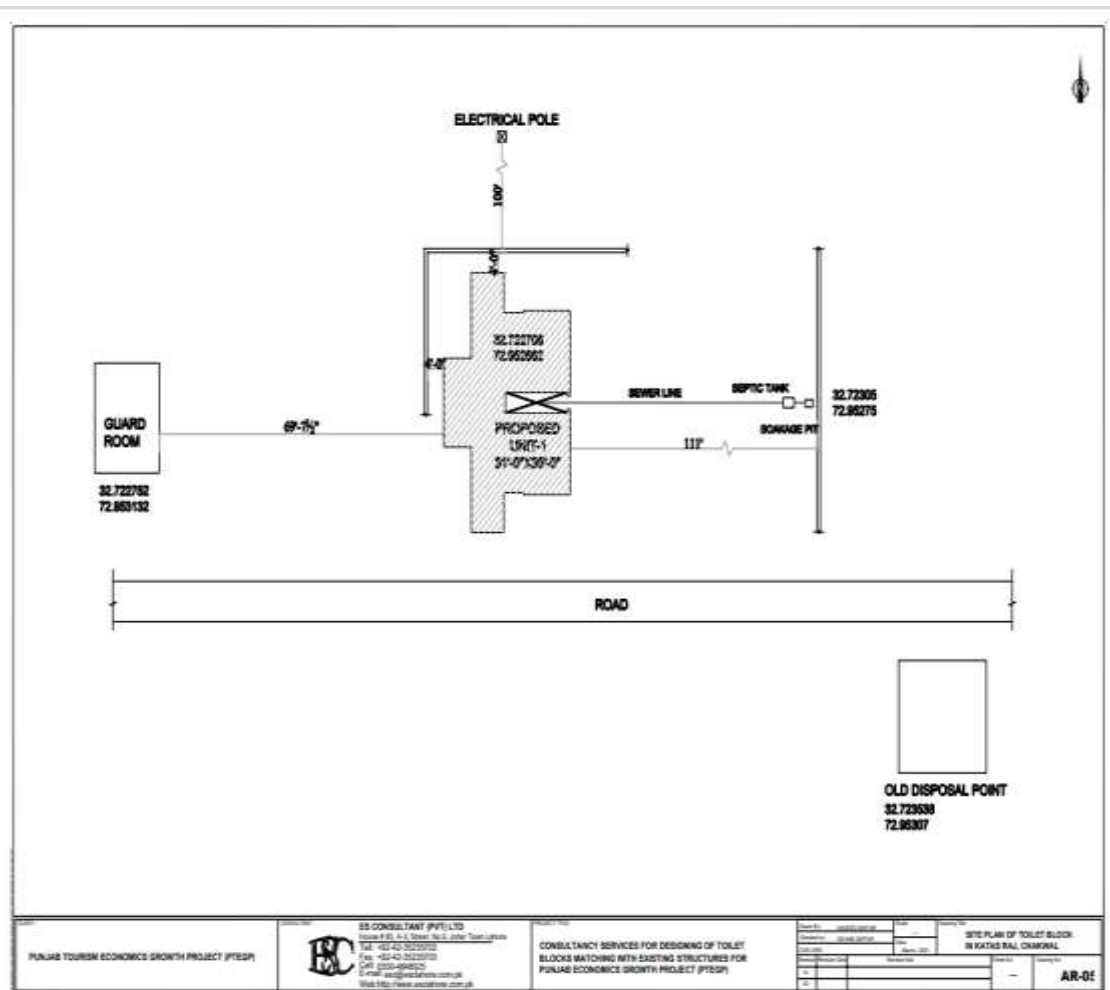


Source: This study

### 2.16.1 Proposed Interventions at Katas Raj, Chakwal.

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area in front of Katas raj Temple. The boundary katas raj and the location of the proposed toilet block is shown in Figure 81. The land required for the construction of the toilet block is the property of Tourism Development Corporation (TDC) A picture of the site proposed for the new toilet block is provided in Figure 82.

Figure 79: Location of the proposed toilet block at TDC Katas Raj, Chakwal



**Figure 80: Proposed site for new toilet block at TDC Kartas Raj, Chakwal**



### **2.16.2 Layout Plan of Proposed Toilet Block at TDCP Kartas Raj, Chakwal.**

The covered area of the new proposed toilet block is 1037 ft. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb and presented in Figure 5, Figure 6 and Figure 7 respectively.

### **2.16.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 16 below;

**Table 16: Activities/ tasks and estimated quantities of construction works at Katas Raj**

<b>Sr. #</b>	<b>Activity/ Task</b>	<b>Total Quantities</b>
1	Excavation for foundation maximum up to 5 feet.	2570.44Cft.
3	Brickwork	2113Cft.
4	Installation of steel Chaukat	1 No.
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	3401.4 kg
6	RCC works in roofs, beams, columns and girders	367.Cft
7	Ceramic tile laying work	741.9 sft
8	Providing and fixing aluminum fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	180.00 sft.
9	Woodworks/ doors	64 sft.
10	Applying weather shield paint (2 coats)	183.1sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e., washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project



## 2.17 Rohtas Fort

Rohtas Fort is situated 18 km northwest of Jhelum and 6.5 km south of Dina (Figure 16). Sher Sha Suri, the founder of the Suri dynasty, commenced construction of Rohtas Fort (also called Qila Rohtas) in 1541. The fort was completed in 1542. Irregular in the plan, this early example of Muslim military architecture follows the contours of its hilltop site.

Figure 81: Location map of Rohtas Fort



Source: Google Maps, 2021. [Accessed 16 November 2021].

The main fortifications of this 70-hectare garrison consist of massive masonry walls more than four kilometres in circumference, lined with 68 bastions and pierced at strategic points by 12 monumental gateways. A beautiful mosque known as Shahi Masjid is situated near the Kabuli Gate, and the Haveli (Palatial House) Man Singh was constructed later in the Mughal period.<sup>16</sup>

The Rohtas Fort is on the UNESCO World Heritage list since 1997 (UNESCO Reference No.: 586) Selected views of SG are provided in Figure 84.

Figure 82: Different views of Rohtas Fort

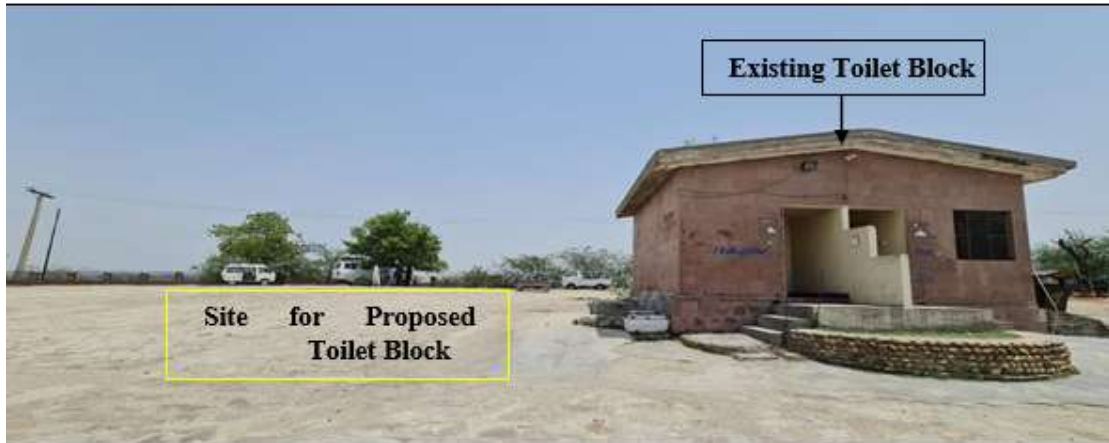


Source: This study

### 2.17.1 Proposed Interventions at Rohtas Fort

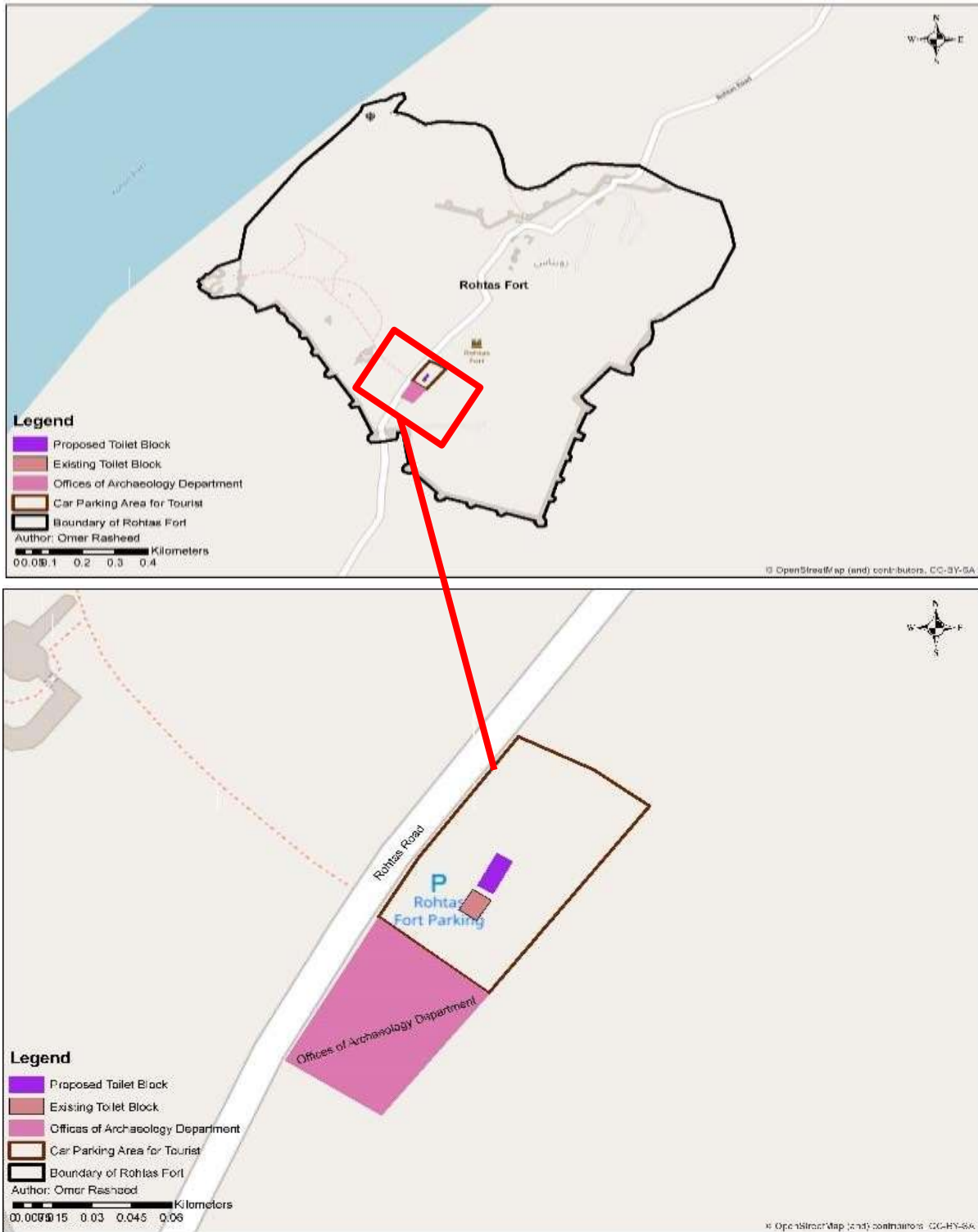
The sub-project involves the construction of one (01 No.) new toilet block (single storey) and renovation of the existing toilet block at Rohtas Fort. The land required for the construction of the toilet block is the property of DGA. A picture of the site proposed for the new toilet block is provided in Figure 18. The boundary of Rohtas Fort and the location of the existing and proposed toilet block is shown in Figure 19.

**Figure 83: Existing Toilet block and Proposed site for new toilet block at Rohtas Fort**



A Septic tank (01No.) will be constructed to treat the wastewater to be discharged from the proposed toilet block.

**Figure 84: Location of the existing and proposed toilet block at Rohtas Fort**



### 2.17.2 Layout Plan of Proposed Toilet Block at Rohtas Fort

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lala Rukh Tomb. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block is also similar to Lala Rukh Tomb as presented in Figure 5, Figure 6 and Figure 7 respectively.

### 2.17.3 Construction activities

The quantum of work and activities to be performed during the construction phase is presented in Table 17 ;

**Table 17: Activities/ tasks and estimated quantities of construction works at Rohtas Fort**

Sr. #	Activity/ Task	Total Quantities
1	Dismantling brick work in lime or cement mortar.	---
2	Dismantling of glaze tile Flooring and Skirting	---
3	Removing a door with Chowkat, windows, skylights, cement and lime plaster, ventilators; scrapping of distemper and paint of wall etc.	---
4	Excavation for foundation maximum up to 5 feet.	2486.4 Cft.
5	Excavation for Soakage pit (9'3"x20') and Septic tank (13'x5'6"x8')	1306 Cft.
6	Brickwork	5067.75 Cft.
7	Installation of steel Chaukat	1 No.
8	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	4156.07 kg
9	RCC works in roofs, beams, columns and girders	1054.8 Cft
10	Ceramic tile laying work	4454.44 sft
11	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	180 sft.
12	Woodworks/ doors	64 sft.
13	Applying emulsion paint (3 coats)	2681.26 sft
14	Providing and laying of tuff pavers	300 sft.
15	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
16	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project BOQ.

### 2.18 TDCP Daud Khel

Daud Khel is a town of Mianwali District in the Punjab province of Pakistan. The town is located at 32°52'60N 71°34'0E at an altitude of 207 metres, and is part of Mianwali Tehsil. Recently TDCP has developed a water sports & Tourism Club near Indus River.

**Figure 85: Location map of Daud Khel, Mianwali**





**Figure 86 Different views of TDCP Daud Khel**

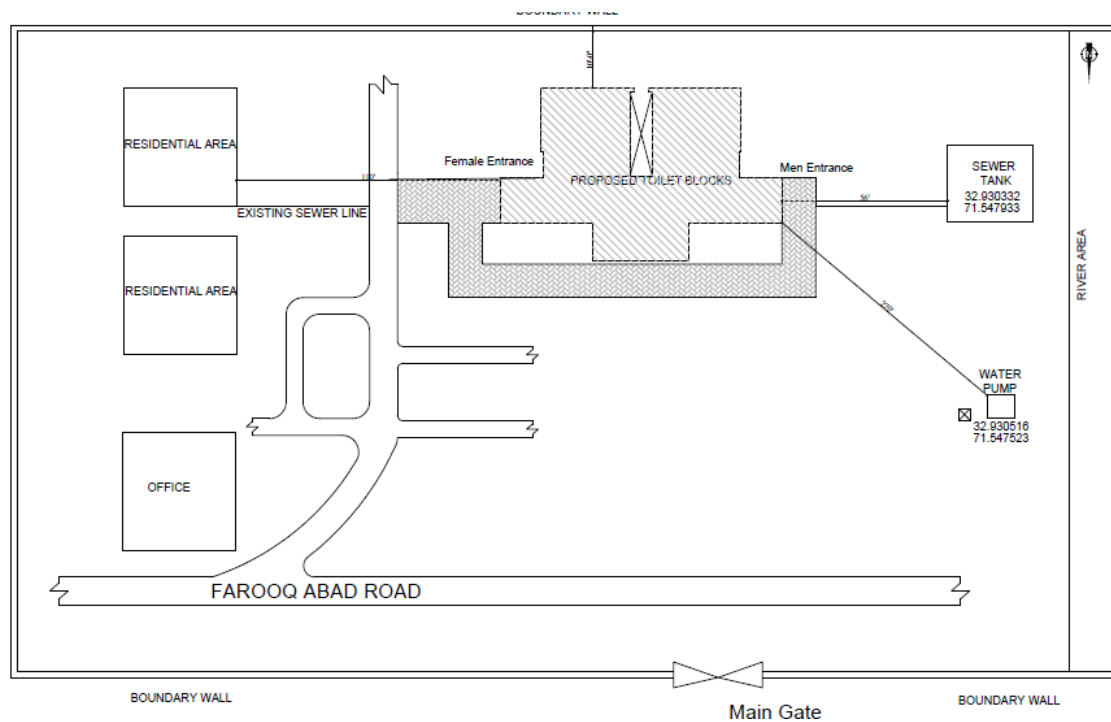


Source: This study

### 2.18.1 Proposed Interventions at TDCP Daud Khel

The sub-project involves the construction of one (01 No.) new toilet block (single storey) in open area nearby river bank. The boundary of TDCP Daud Khel and the location of the proposed toilet block is shown in Figure 86. The land required for the construction of the toilet block is the property of TDCP. A picture of the site proposed for the new toilet block is provided in Figure 89.

**Figure 87: Location of the proposed toilet block at TDCP Daud Khel**





**Figure 90: 3D Elevation of Toilet Blocks at Daud Khel**



**2.18.2 Layout Plan of Proposed Toilet Block at TDCP Daud Khel**

The covered area of the new proposed toilet block is 1037 sq. ft. is similar to that of Lala Rukh Tomb Attock. Moreover, the layout plan, front elevation and the 3D elevation of the proposed toilet block are presented in Figure 5, Figure 90 and Figure 91 respectively.

**2.18.3 Construction activities**

The quantum of work and activities to be performed during the construction phase is presented in Table 18;

**Table 18: Activities/ tasks and estimated quantities of construction works at Hiran Minar**

Sr. #	Activity/ Task	Total Quantities
1	Excavation for foundation maximum up to 5 feet.	2570.44 Cft.
3	Brickwork	4593.29 Cft.
4	Installation of steel Chaukat	1 No.
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	3410.04 kg
6	RCC works in roofs, beams, columns and girders	1040.61 Cft
7	Ceramic tile laying work	4554.21 sft
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	180 sft.
9	Woodworks/ doors	64 sft.
10	Applying weather shield paint (2 coats)	2095.88 sft
11	Providing and laying of tuff pavers	300 sft.
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	---
	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	---

Source: Sub-project

### **3. Preliminary Environmental and Social Impacts**

A survey has been conducted by PMU PTEGP Environmental and Social (E&S) staff and Pak Green Consultant team to collect the necessary information required for the E&SS and EMP of the sub-project. The detail of potential environmental and social (E&S) impacts of each site of the sub-project is presented in Table 19.





**Table 19: Potential E&S Impacts identified during E&SS process**

**Potential E&S Impacts identified during E&SS process**

Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
<b>Environment</b>						
1.	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.	Lala Rukh Tomb	✓		<p>The proposed new toilet blocks are not located in or within the vicinity of any eco-sensitive area.</p> <p>However, these are located within the vicinity of a monument – Lala Rukh Tomb is not designated as a world heritage site (refer to Section 2.1 for detail). The particular site/land where the new toilet block will be built is near the already existing toilet blocks at the back site of the monument is a property of Directorate General of Archaeology (DGA) (refer to Section 2.1 for detail).</p> <p>The location of proposed toilet blocks is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make onsite visits and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden.</p> <p>In addition, the construction activities/quantum of work for the renovation of the existing toilet block and construction of two new blocks as explained in Section 2.1.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Lala Rukh Tomb , Attock.</p>	-
		Wah Gardens	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within proximity of a National Archaeological Site. The Wah Gardens is not yet listed as World Heritage Site (refer to Section 2.2 for</p>	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation	Assessment of Category
					(In-case of Yes)	
					<p>detail).</p> <p>The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities.</p> <p>In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.2.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Wah Gardens.</p>	
		Sirkap	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within the vicinity of Sirkap Ruins – which is a World Heritage Site (refer to Section <a href="#">2.4</a> for detail).</p> <p>The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make onsite visits and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden.</p> <p>In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.4.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Sirkap Ruins.</p>	-
		Mohra Moradu	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within the vicinity of Mohra Moradu monastery – which is a World Heritage Site (refer to Section <a href="#">2.5</a> for detail).</p> <p>The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e.</p>	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation	Assessment of Category
					(In-case of Yes)	
					2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.5.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Mohra Moradu monastery	
		Dharam Rajika	✓		The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.  However, it is located within the vicinity of Dharmarajika monastery – which is a World Heritage Site (refer to Section 2.5 for detail).  The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make onsite visits and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden.  In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.5.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Dharmarajika monastery	-
		Taxila Museum	✓		The existing toilet block to be renovated is not located in or within the vicinity of any eco-sensitive area and World Heritage Site (refer to Section 2.3 for detail). The Museum Building itself is not on the UNESCO heritage list. However, the three Archaeological sites located several kilometres away from Museum are on UNESCO World Heritage List.  The proposed activity has been suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activity. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make onsite visits	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
					and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden. In addition, the construction activities/quantum of work for the renovation of the existing toilet block as explained in Section 2.3.3 are minimal and will not result in any negative impact on the Taxila Museum Building i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration.	
		Patriata Hill Station	✓		The site for the proposed toilet block is located within the boundary Kohota Kotli Sattian Murree National Park which is designated as a sensitive site by EPA Punjab (see Annexure A-3 for reference)  The location of the proposed 3 toilet block at starting, mid and top point is suggested by TDCP, in order to provide better facilities for tourism near to the Hill Station for leisure of people.etails are given in section 2.12. In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.12.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Pariatae Chair lift and cable car resort.	-
		GPO Chowk , Mall Road	✓		The site for the proposed toilet block is located within the boundary Kahuta Kotli Sattian Murree National Park which is designated as a sensitive site by EPA Punjab (see Annexure A-3 for reference)  The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the Hill station for leisure. See section 2.11 for details In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.11.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the GPO Chowk Mall Road	-
		Tench Bhatta Bazar		✓	The site for the proposed toilet block (site 1)and renovation of existing toilet(site 2) block is not located in or within the vicinity of any eco-sensitive area.(see section 2.8 for setails)  However, it is located within the vicinity of Tench Bhatta Bazar	-





Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
					The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for for the people coming to the bazar for shopping and leisure. In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.8.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Changa Manga Resort	
		TDCP sightseeing bus terminal		✓	The site for the proposed toilet block (site 1)and renovation of existing toilet(site 2) block is not located in or within the vicinity of any eco-sensitive area.(see section 2.7 for details) The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for the tourist visiting the sightseeing bus terminal In addition, the construction activities/quantum of work for the renovation of the existing toilet block and construction of one new block as explained in n Section 2.7.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP sightseeing bus terminal.	-
		TDCP Khajut Hill top	✓		The site for the proposed toilet block is located vicinity the boundary Kohuta Kotli Sattian Murree National Park which is designated as a sensitive site by EPA Punjab (see Annexure A-3 for reference) The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the Hill station for leisure See section 2.9 for details. In addition, the construction activities/quantum of work for construction of a new block as explained in Section 2.4.3 above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Khajut Hill top	-
		TDCP Dhanoi	✓		The site for the proposed toilet block is located within the boundary Kohuta Kotli Sattian Murree National Park which is designated as a sensitive site by EPA Punjab (see Annexure A-3 for reference) The location of the proposed toilet block is suggested by TDCP, in order to	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
					provide better facilities for tourism near to the Forest reserve for leisure (see section 2.10 for details). In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.10.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Changa Manga Resort	
		Dharabi Lake	✓		The site for the proposed toilet block is located within the vicinity of Dharabi Lake which is designated as a sensitive site by EPA Punjab (see Annexure A-3 for reference)  The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the natural Lake for leisure. See section 2.13 for details In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.13.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Changa Manga Resort	-
		Katas Raj	✓		The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.  However, it is located within the vicinity of Katas Raj – which is a World Heritage Site (refer to Section <a href="#">2.14</a> for detail).  The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make onsite visits and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden. In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.14.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation	Assessment of Category
					(In-case of Yes)	
					desecration of the Katas Raj.	
		TDCP Kallar Kahar	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within the vicinity of Kallar Kahar Lake</p> <p>The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the Lake for leisure See section 2.15 for details</p> <p>In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.15.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Kallar Kahar Resort</p>	-
		TDCP Dhok Talian	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within the vicinity of Dhok Talian Dam see section 2.14 for details.</p> <p>The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the Forest reserve for leisure</p> <p>In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.14.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Dhok Talian Resort</p>	-
		Rohtas Fort	✓		<p>The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area.</p> <p>However, it is located within the vicinity of Rohtas Fort – which is a World Heritage Site (refer to Section <a href="#">2.17</a> for detail).</p> <p>The location of the proposed toilet block is suggested by DGA ensuring it does not violate Punjab Antiquity Act 1975 and amendments thereafter i.e. 2012. Moreover, NOC has also been granted by DGA (refer to Annexure A) for the proposed activities. The material used for the front elevation of the toilet blocks will be compatible with the heritage sites. The architect will make</p>	-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
					onsite visits and ensure that aesthetic of the site is not distorted. Also, most of the points selected are at a distance from main structure, or somewhat hidden. In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.17.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the Rohtas Fort.	
		TDCP Daud Khel	✓		The site for the proposed toilet block is not located in or within the vicinity of any eco-sensitive area. However, it is located within the vicinity of Indus River. See section 2.18 for details The location of the proposed toilet block is suggested by TDCP, in order to provide better facilities for tourism near to the Forest reserve for leisure In addition, the construction activities/quantum of work for construction of a new block as explained in Section <a href="#">2.18.3</a> above are minimal and will not result in any negative impact i.e. destruction/demolition, wear, removal, burial, modification, change of use, neglect, flooding, denial of access and desecration of the TDCP Daud Khel	-
2.	Will the subproject create significant/limited/no environmental impacts during the construction stage?					-
	<ul style="list-style-type: none"> <li>Clearance of vegetation/ tree-cover/other</li> </ul>	Lala Rukh Tomb		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 4). Construction will take place in a 1037 sq. ft. only.	
		Wah Gardens		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 11). Construction will take place in a 1037 sq. ft. only.	
		Sirkap		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 19). Construction will take place in a 1037 sq. ft. only.	
		Mohra Moradu		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 28). Construction will take place in a 1037 sq. ft. only.	





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Dharam Rajika		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 23). Construction will take place in a 1037 sq. ft. only.	
			Taxila Museum		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 15). Construction will take place in a 1037 sq. ft. only.	
			Patriata Hill Station		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 64, 65, 66). Construction will take place in a 1037 sq. ft. only.	
			GPO Chowk , Mall Road		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 54). Construction will take place in a 1037 sq. ft. only.	
			Tench Bhatta Bazar		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 38, 39). Construction will take place in a 1037 sq. ft. only.	
			TDCP sightseeing bus terminal		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 33). Construction will take place in a 1037 sq. ft. only.	
			TDCP Khajut Hill Station		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 43,45). Construction will take place in a 1037 sq. ft. only.	
			TDCP Dhanoi		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 51). Construction will take place in a 1037 sq. ft. only.	
			Dharabi Lake		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 70). Construction will take place in a 1037 sq. ft. only.	
			Katas Raj		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 82). Construction will take place in a 1037 sq. ft. only.	
			TDCP Kallar Kahar		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 73). Construction will take place in a 1037 sq. ft. only.	
			TDCP Dhok Talian		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 90). Construction will take place in a 1037 sq. ft. only.	
			Rohtas Fort		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 86). Construction will take place in a 1037 sq. ft. only.	
			TDCP Daud Khel		✓	No notable vegetation clearance nor any tree uprooting will be involved (refer to Figure 90). Construction will take place in a 1037 sq. ft. only.	
		Direct discharge of construction run-off, improper storage and	Lala Rukh Tomb		✓	Total 1774.3 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-
			Wah Gardens		✓	Total 2486.4 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-
			Sirkap		✓	Total 2509Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
	disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes.	Mohra Moradu		✓	Total 2509.09 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-	
		Dharam Rajika		✓	Total 2509.09 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-	
		Taxila Museum		✓	Total 68.4 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.	-	
		Patriata Hill Station		✓	Total 6450 (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		GPO Chowk , Mall Road		✓	Total 2261 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		Tench Bhatta Bazar		✓	Total 3712.82Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP sightseeing bus terminal		✓	Total 3509.538 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP Khajut Hill Station		✓	Total 4413.9Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP Dhanoi		✓	Total 2150.50Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		Dharabi Lake		✓	Total 2570.44 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		Katas Raj		✓	Total 2570.44 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP Kallar Kahar		✓	Total 980.459 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP Dhok Talian		✓	Total 2570.44 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		Rohtas Fort		✓	Total 2486.44 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
		TDCP Daud Khel		✓	Total 2570.44 Cft (approx.) of spoil will be generated during excavation and all of it will be reused during backfilling. Therefore, this risk is ruled out.		
•	Flooding of adjacent areas.	Lala Rukh Tomb		✓	The sub-project activities are on a very limited scale, no major excavation is involved nor does the sub-project involve the construction of anyreservoir/dam or water regulating structure therefore the risk of flooding ofthe adjacent area is ruled out.	-	
		Wah Gardens		✓	Same as Above (SAA)	-	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-
			Dharam Rajika		✓	SAA	-
			Taxila Museum		✓	SAA	-
			Patriata Hill Station		✓	SAA	-
			GPO Chowk , Mall Road		✓	SAA	
			Tench Bhatta Bazar		✓	SAA	
			TDCP sightseeing bus terminal		✓	SAA	
			TDCP Khajut Hill Station		✓	SAA	
			TDCP Dhanoi		✓	SAA	
			Dharabi Lake		✓	SAA	
			Katas Raj		✓	SAA	
			TDCP Kallar Kahar		✓	SAA	
			TDCP Dhok Talian		✓	SAA	
			Rohtas Fort		✓	SAA	
	TDCP Daud Khel		✓	SAA			
	•	Improper storage and handling of substances leading to contamination of soil and water.	Lala Rukh Tomb		✓	The sub-project does not involve the use of any substance that could contaminate soil or water. Moreover, the quantities of construction material to be used during construction is very limited therefore the risk of soil and water contamination is ruled out.	-
			Wah Gardens		✓	SAA	-
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-
Dharam Rajika				✓	SAA	-	
Taxila Museum				✓	SAA	-	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Patriata Hill Station		✓	SAA	-
			GPO Chowk , Mall Road		✓	SAA	
			Tench Bhatta Bazar		✓	SAA	
			TDCP sightseeing bus terminal		✓	SAA	
			TDCP Khajut Hill Station		✓	SAA	
			TDCP Dhanoi		✓	SAA	
			Dharabi Lake		✓	SAA	
			Katas Raj		✓	SAA	
			TDCP Kallar Kahar		✓	SAA	
			TDCP Dhok Talian		✓	SAA	
			Rohtas Fort		✓	SAA	
			TDCP Daud Khel		✓	SAA	
	•	Elevated noise and dust emission.	Lala Rukh Tomb		✓	No heavy machinery (impact devices) will be required for the construction work. The construction will involve masonry works using handheld tools.	-
			Wah Gardens		✓	SAA	-
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-
			Dharam Rajika		✓	SAA	-
			Taxila Museum		✓	SAA	-
			Patriata Hill Station		✓	SAA	-
			GPO Chowk , Mall Road		✓	SAA	
Tench Bhatta Bazar		✓	SAA				
TDCP sightseeing bus terminal		✓	SAA				
TDCP Khajut Hill Station		✓	SAA				





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Dhanoi		✓	SAA	
			Dharabi Lake		✓	SAA	
			Katas Raj		✓	SAA	
			TDCP Kallar Kahar		✓	SAA	
			TDCP Dhok Talian		✓	SAA	
			Rohtas Fort		✓	SAA	
			TDCP Daud Khel		✓	SAA	
	•	Disruption to traffic and visitors' movements.	Lala Rukh Tomb		✓	The sub-project has a very limited scope, so do the quantities of material (refer to Table 1 for quantities of material). Therefore, it is location and	-
			Wah Gardens		✓	SAA (refer to Table 2 for quantities of material)	-
			Sirkap		✓	SAA (refer to Table 4 for quantities of material)	-
			Mohra Moradu		✓	SAA (refer to Table 6 for quantities of material)	-
			Dharam Rajika		✓	SAA (refer to Table 5 for quantities of material)	-
			Taxila Museum		✓	SAA (refer to Table 3 for quantities of material)	-
			Patriata Hill Station		✓	SAA (refer to Table 12 for quantities of material)	-
			GPO Chowk , Mall Road		✓	SAA (refer to Table 11 for quantities of material)	
			Tench Bhatta Bazar		✓	SAA (refer to Table 8 for quantities of material)	
			TDCP sightseeing bus terminal		✓	SAA (refer to Table 7 for quantities of material)	
			TDCP Khajut Hill Station		✓	SAA (refer to Table 9 for quantities of material)	
			TDCP Dhanoi		✓	SAA (refer to Table 10 for quantities of material)	
			Dharabi Lake		✓	SAA (refer to Table 13 for quantities of material)	
			Katas Raj		✓	SAA (refer to Table 16 for quantities of material)	
			TDCP Kallar Kahar		✓	SAA (refer to Table 15 for quantities of material)	
			TDCP Dhok Talian		✓	SAA (refer to Table 14 for quantities of material)	
			Rohtas Fort		✓	SAA (refer to Table 17 for quantities of material)	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category	
			TDCP Daud Khel		✓	SAA (refer to Table 18 for quantities of material)		
	•	Damage to existing infrastructure, public utilities and amenities.	Lala Rukh Tomb		✓	No significant excavation is involved that could damage existing infrastructure and or public utilities nor the construction is spread over a large area therefore chance of this happening is ruled out. The area is in the custody of the Archaeology Department.	-	
			Wah Gardens				SAA	
			Sirkap		✓		SAA	-
			Mohra Moradu		✓		SAA	-
			Dharam Rajika		✓		SAA	-
			Taxila Museum		✓		SAA	-
			Patriata Hill Station		✓		No significant excavation is involved that could damage existing infrastructure and or public utilities nor the construction is spread over a large area therefore chance of this happening is ruled out. The area is in the custody of the TDCP	-
			GPO Chowk , Mall Road		✓		SAA	-
			Tench Bhatta Bazar		✓		SAA	
			TDCP sightseeing bus terminal		✓		SAA	
			TDCP Khajut Hill Station		✓		SAA	
			TDCP Dhanoi		✓		SAA	
			Dharabi Lake		✓		SAA	
			Katas Raj		✓		No significant excavation is involved that could damage existing infrastructure and or public utilities nor the construction is spread over a large area therefore chance of this happening is ruled out. The area is in the custody of the Archaeology Department	
			TDCP Kallar Kahar		✓		SAA	
			TDCP Dhok Talian		✓		SAA	
			Rohtas Fort		✓		No significant excavation is involved that could damage existing infrastructure and or public utilities nor the construction is spread over a	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
						large area therefore chance of this happening is ruled out. The area is in the custody of the Archaeology Department	
			TDCP Daud Khel		✓	-No significant excavation is involved that could damage existing infrastructure and or public utilities nor the construction is spread over large area therefore chance of this happening is ruled out. The area is in the custody of the TDCP	
	• Failure to restore temporary construction		Lala Rukh Tomb		✓	Temporary construction sites/ facilities i.e. labour camps etc. will not be required for the sub-project. Moreover, the construction activity itself is very limited therefore this risk is ruled out SAA	-
			Wah Gardens				
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-
			Dharam Rajika		✓	SAA	-
			Taxila Museum		✓	SAA	-
			Patriata Hill Station		✓	SAA	
			GPO Chowk , Mall Road		✓	SAA	
			Tench Bhatta Bazar		✓	SAA	
			TDCP sightseeing bus terminal		✓	SAA	
			TDCP Khajut Hill Station		✓	SAA	
			TDCP Dhanoi		✓	SAA	
			Dharabi Lake		✓	SAA	
			Katas Raj		✓	SAA	
			TDCP Kallar Kahar		✓	SAA	
			TDCP Dhok Talian		✓	SAA	
			Rohtas Fort		✓	SAA	
		TDCP Daud Khel		✓	SAA		



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
•	Possible conflicts with and/or disruption to local community and/or visitors.	Lala Rukh Tomb		✓	The site is owned and in the custody of the Archaeology Department. Furthermore, see explanation in Sr. No 2, bullet 6 of this table	-	
		Wah Gardens		✓	SAA	-	
		Sirkap		✓	SAA	-	
		Mohra Moradu		✓	SAA	-	
		Dharam Rajika		✓	SAA	-	
		Taxila Museum		✓	SAA	-	
		Patriata Hill Station		✓	The site is owned and in the custody of the TDCP. Furthermore, see explanation in Sr. No 2, bullet 6 of this table	-	
		GPO Chowk , Mall Road		✓	SAA		
		Tench Bhatta Bazar		✓	SAA		
		TDCP sightseeing bus terminal		✓	SAA		
		TDCP Khajut Hill Station		✓	SAA		
		TDCP Dhanoi		✓	SAA		
		Dharabi Lake		✓	SAA		
		Katas Raj		✓	The site is owned and in the custody of the Archaeology Department. Furthermore, see explanation in Sr. No 2, bullet 6 of this table		
		TDCP Kallar Kahar		✓	SAA		
		TDCP Dhok Talian		✓	SAA		
		Rohtas Fort		✓	The site is owned and in the custody of the Archaeology Department. Furthermore, see explanation in Sr. No 2, bullet 6 of this table		
		TDCP Daud Khel		✓	The site is owned and in the custody of the TDCP. Furthermore, see explanation in Sr. No 2, bullet 6 of this table		
•	Health risks due to unhygienic conditions at	Lala Rukh Tomb		✓	- No labour camp is required for the work, daily labourers will be employed (14-15 labourers maximum approx.).	-	
		Wah Gardens Sirkap		✓	SAA	-	





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category	
	workers camps.		Mohra Moradu Dharam Rajika		✓	SAA	-	
			Taxila Museum Patriata Hill Station		✓	SAA	-	
			GPO Chowk , Mall Road		✓	SAA	-	
			Tench Bhatta Bazar		✓	SAA	-	
			TDCP sightseeing bus terminal		✓	SAA	-	
			TDCP Khajut Hill Station		✓	SAA	-	
			TDCP Dhanoi		✓	SAA	-	
			Dharabi Lake		✓	SAA	-	
			Katas Raj		✓	SAA	-	
			TDCP Kallar Kahar		✓	SAA	-	
			TDCP Dhok Talian		✓	SAA	-	
			Rohtas Fort		✓	SAA	-	
			TDCP Daud Khel		✓	SAA	-	
	•	Safety hazards during construction.		Lala Rukh Tomb	✓		Minor occupational health and safety issues are perceived based on the scope of work (refer to Section 3.1 for detail)	-
				Wah Gardens	✓		SAA	-
				Sirkap	✓		SAA	-
				Mohra Moradu	✓		SAA	-
				Dharam Rajika	✓		SAA	-
				Taxila Museum	✓		SAA	-
				Patriata Hill Station	✓		SAA	-
				GPO Chowk , Mall Road	✓		SAA	-
				Tench Bhatta Bazar	✓		SAA	-
				TDCP sightseeing	✓		SAA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			bus terminal				
			TDCP Khajut Hill Station	✓		SAA	-
			TDCP Dhanoi	✓		SAA	-
			Dharabi Lake	✓		SAA	-
			Katas Raj	✓		SAA	-
			TDCP Kallar Kahar	✓		SAA	-
			TDCP Dhok Talian	✓		SAA	-
			Rohtas Fort	✓		SAA	-
			TDCP Daud Khel	✓		SAA	-
	•	Other, specify.	Lala Rukh Tomb		✓	Not Applicable (NA)	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-
			Mohra Moradu		✓	NA	-
			Dharam Rajika		✓	NA	-
			Taxila Museum		✓	NA	-
			Patriata Hill Station		✓	NA	-
			GPO Chowk , Mall Road		✓	NA	-
			Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Dhok Talian		✓	NA	-
			Rohtas Fort		✓	NA	-
			TDCP Daud Khel		✓	NA	-
	Will the subproject create significant/limited/no environmental impacts during the operational stage? (Significant / limited / no impacts)						-
	•	Flooding of adjacent areas	Lala Rukh Tomb		✓	Not applicable therefore the risk of flooding of the adjacent area is ruled out.	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-
			Mohra Moradu		✓	NA	-
			Dharam Rajika		✓	NA	-
			Taxila Museum		✓	NA	-
			Patriata Hill Station		✓	NA	-
			GPO Chowk , Mall Road		✓	NA	-
			Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
	TDCP Kallar Kahar		✓	NA	-		



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Dhok Talian		✓	NA	-
			Rohtas Fort		✓	NA	-
			TDCP Daud Khel		✓	NA	-
	• Impacts to water quality due to effluent discharge		Lala Rukh Tomb		✓	-Wastewater from toilet blocks will be discharged into the TMA, Attock. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage pipeline for wastewater disposal.	-
			Wah Gardens		✓	-Wastewater from toilet blocks will be discharged into the TMA, Wah. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage pipeline for wastewater disposal.	-
			Sirkap		✓	A Septic tank will be constructed to treat the effluents from toilets. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal. If there is no existing sewerage system close to the new proposed toilets, a soaking pit will be constructed for the wastewater disposal.	-
			Mohra Moradu		✓	A Septic tank will be constructed to treat the effluents from toilets. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal. If there is no existing sewerage system close to the new proposed toilets, a soaking pit will be constructed for the wastewater disposal.	-
			Dharam Rajika		✓	A Septic tank will be constructed to treat the effluents from toilets. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal. If there is no existing sewerage system close to the new proposed toilets, a soaking pit will be constructed for the wastewater disposal.	-
			Taxila Museum		✓	-Waste water will be discharged to existing septic tanks and wastewater disposal arrangements.	-
			Patriata Hill Station		✓	Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal. If there is no existing sewerage system close to the new proposed toilets, a soaking pit will be constructed for the wastewater disposal.	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			GPO Chowk , Mall Road		✓	-Wastewater from toilet blocks will be discharged into the TMA, Murree wastewater disposal arrangements. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			Tench Bhatta Bazar		✓	-Wastewater from toilet blocks will be discharged into the TMA, Rawalpindi connection. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			TDCP sightseeing bus terminal		✓	-Wastewater from toilet blocks will be discharged into the TMA, Rawalpindi. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			TDCP Khajut Hill Station		✓	-Waste water will be discharged to existing septic tanks. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage pipeline for wastewater disposal.	-
			TDCP Dhanoi		✓	-Waste water will be discharged to existing septic tanks. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			Dharabi Lake		✓	Septic tank and soaking pit will be constructed for the wastewater disposal.	-
			Katas Raj		✓	Wastewater from toilet blocks will be discharged into the TMA, Chakwal connection. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			TDCP Kallar Kahar		✓	Wastewater from toilet blocks will be discharged into the TMA, Chakwal connection. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			TDCP Dhok Talian		✓	Wastewater from toilet blocks will be discharged into the TMA, Chakwal connection. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing sewerage system for wastewater disposal.	-
			Rohtas Fort		✓	Wastewater from toilet blocks will be discharged into the Dina's wastewater disposal connection. Sewerage system will be provided to connect the sewer generate at proposed toilet blocks and connect with nearest existing	-





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
						sewerage system for wastewater disposal.	
			TDCP Daud Khel		✓	A Septic tank will be constructed to treat the effluents from toilets.	-
	•	Gas emissions	Lala Rukh Tomb		✓	-	-
			Wah Gardens		✓	-	-
			Sirkap		✓	-	-
			Mohra Moradu		✓	-	-
			Dharam Rajika		✓	-	-
			Taxila Museum		✓	-	-
			Patriata Hill Station		✓	-	-
			GPO Chowk , Mall Road		✓	-	-
			Tench Bhatta Bazar		✓	-	-
			TDCP sightseeing bus terminal		✓	-	-
			TDCP Khajut Hill Station		✓	-	-
			TDCP Dhanoi		✓	-	-
			Dharabi Lake		✓	-	-
			Katas Raj		✓	-	-
			TDCP Kallar Kahar		✓	-	-
	TDCP Dhok Talian		✓	-	-		
	Rohtas Fort		✓	-	-		
	•	Safety hazards	Lala Rukh Tomb		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by the archaeological department.	-
			Wah Gardens		✓	SAA	-
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Dharam Rajika		✓	SAA	-
			Taxila Museum		✓	SAA	-
			Patriata Hill Station		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by TDCP.	-
			GPO Chowk , Mall Road		✓	SAA	
			Tench Bhatta Bazar		✓	SAA	
			TDCP sightseeing bus terminal		✓	SAA	
			TDCP Khajut Hill Station		✓	SAA	
			TDCP Dhanoi		✓	SAA	
			Dharabi Lake		✓	SAA	
			Katas Raj		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by the archaeological department.	
			TDCP Kallar Kahar		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by TDCP.	
			TDCP Dhok Talian		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by TDCP.	
			Rohtas Fort		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by the archaeological department.	
TDCP Daud Khel		✓	Negligible safety hazards relating to daily cleaning of the facilities. Material safety data sheet (MSDS) to be prepared during the operational stage of the sub-project by TDCP				
	•	Visual Adverse impact on cultural	Lala Rukh Tomb		✓	- Sites for new toilets block are selected with consensus of Archeological Department and concern persons at TDCP. It was ensured that new development have no adverse impact on aesthetic and historical values of heritage sites.	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
		heritage sites				Selected locations are well away and out of sight while standing next to the heritage sites. Design and material to be used for the construction were selected with care and efforts are made to match the look of new structure with heritage sites view.	
			Wah Gardens		✓	-SAA	-
			Sirkap		✓	-SAA	-
			Mohra Moradu		✓	-SAA	-
			Dharam Rajika		✓	-SAA	-
			Taxila Museum		✓	-SAA	-
			Patriata Hill Station		✓	-SAA	-
			GPO Chowk , Mall Road		✓	-SAA	
			Tench Bhatta Bazar		✓	-SAA	
			TDCP sightseeing bus terminal		✓	-SAA	
			TDCP Khajut Hill Station		✓	-SAA	
			TDCP Dhanoi		✓	-SAA	
			Dharabi Lake		✓	-SAA	
			Katas Raj		✓	-SAA	
			TDCP Kallar Kahar		✓	-SAA	
			TDCP Dhok Talian		✓	-SAA	
			Rohtas Fort		✓	-SAA	
			TDCP Daud Khel		✓	-SAA	
4	Does the subproject involve any prior clearance from the State Forest Department for either the conversion of forest	Lala Rukh Tomb			✓	It is unlikely that uprooting of mature trees require for the proposed development. Exact location of toilet structure can be adjusted to avoid uprooting of mature tree on site. However, if uprooting is essential than prior approval is required from relevant authority i.e. Archaeological Department or TDCP (depending on site ownership)	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
	land or for tree-cutting? (Yes/ No).		Wah Gardens		✓	SAA	-
			Sirkap		✓	SAA	-
			Mohra Moradu		✓	SAA	-
			Dharam Rajika		✓	SAA	-
			Taxila Museum		✓	SAA	-
			Patriata Hill Station		✓	SAA	-
		GPO Chowk , Mall Road		✓	SAA	-	
		Tench Bhatta Bazar		✓	SAA	-	
		TDCP sightseeing bus terminal		✓	SAA	-	
		TDCP Khajut Hill Station		✓	SAA	-	
		TDCP Dhanoi		✓	SAA	-	
		Dharabi Lake		✓	SAA	-	
		Katas Raj		✓	SAA	-	
		TDCP Kallar Kahar		✓	SAA	-	
		TDCP Dhok Talian		✓	SAA	-	
		Rohtas Fort		✓	SAA	-	
		TDCP Daud Khel		✓	SAA	-	
5	Will the subproject create significant/limited/ no cultural properties impacts?						-
	•	Involve significant excavations, demolition, movement of	Lala Rukh Tomb		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.1.1 and 2.1.3 for the detailed scope of work and associated construction activities)	-
		of Wah Gardens		✓	The sub-project does not involve any of these risks i.e. significant	-	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
		earth, flooding or other major environmental damages.				excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.2.1 and 2.2.3 for the detailed scope of work and associated construction activities)	
			Sirkap		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.4.1 and 2.4.3 for the detailed scope of work and associated construction activities)	-
			Mohra Moradu		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.6.1 and 2.6.3 for the detailed scope of work and associated construction activities)	-
			Dharam Rajika		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.5.1 and 2.5.3 for the detailed scope of work and associated construction activities)	-
			Taxila Museum		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.3.1 and 2.3.3 for the detailed scope of work and associated construction activities)	-
			Patriata Hill Station		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.12.1 and 2.12.3 for the detailed scope of work and associated construction activities)	-
			GPO Chowk , Mall Road		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.11.1 and 2.11.3 for the detailed scope of work and associated construction activities)	-
			Tench Bhatta Bazar		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.8.1 and 2.8.3 for the detailed scope of work and associated construction activities)	-
			TDCP sightseeing bus terminal		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.7.1 and 2.7.3 for the detailed scope of work and associated construction activities)	-





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Khajut Hill Station		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.9.1 and 2.9.3 for the detailed scope of work and associated construction activities)	-
			TDCP Dhanoi		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.10.1 and 2.10.3 for the detailed scope of work and associated construction activities)	-
			Dharabi Lake		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.13.1 and 2.13.3 for the detailed scope of work and associated construction activities)	-
			Katas Raj		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.16.1 and 2.16.3 for the detailed scope of work and associated construction activities)	-
			TDCP Kallar Kahar		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.15.1 and 2.15.3 for the detailed scope of work and associated construction activities)	-
			TDCP Dhok Talian		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.14.1 and 2.14.3 for the detailed scope of work and associated construction activities)	-
			Rohtas Fort		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.17.1 and 2.17.3 for the detailed scope of work and associated construction activities)	-
			TDCP Daud Khel		✓	The sub-project does not involve any of these risks i.e. significant excavations, demolition, movement of earth, flooding or other major environmental damages. (refer to Section 2.6.1 and 2.6.3 for the detailed scope of work and associated construction activities)	-
	•	Is located within or in the vicinity of	Lala Rukh Tomb	✓		-	-
			Wah Gardens	✓		-	-
			Sirkap	✓		-	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category	
	a recognized cultural property conservation area or heritage site.		Mohra Moradu	✓		-	-	
			Dharam Rajika	✓		-	-	
			Taxila Museum	✓		-	-	
			Patriata Hill Station		✓	-	-	
			GPO Chowk , Mall Road		✓	-	-	
			Tench Bhatta Bazar		✓	-	-	
			TDCP sightseeing bus terminal		✓	-	-	
			TDCP Khajut Hill Station		✓	-	-	
			TDCP Dhanoi		✓	-	-	
			Dharabi Lake		✓	-	-	
			Katas Raj			-	-	
			TDCP Kallar Kahar		✓	-	-	
			TDCP Dhok Talian		✓	-	-	
			Rohtas Fort			-	-	
			TDCP Daud Khel		✓	-	-	
	•	Is designed to support the management or conservation of cultural property.		Lala Rukh Tomb	✓		The sub-project is designed to support the management of tourists visiting the site by providing toilet facilities.	-
				Wah Gardens	✓		SAA	-
				Sirkap	✓		SAA	-
				Mohra Moradu	✓		SAA	-
				Dharam Rajika	✓		SAA	-
				Taxila Museum	✓		SAA	-
				Patriata Hill Station	✓		SAA	-
				GPO Chowk , Mall Road	✓		SAA	-
				Tench Bhatta Bazar	✓		SAA	-
				TDCP sightseeing bus terminal	✓		SAA	-
	TDCP Khajut Hill	✓		SAA	-			



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Station				
			TDCP Dhanoi	✓		SAA	-
			Dharabi Lake	✓		SAA	-
			Katas Raj	✓		SAA	-
			TDCP Kallar Kahar	✓		SAA	-
			TDCP Dhok Talian	✓		SAA	-
			Rohtas Fort	✓		SAA	-
			TDCP Daud Khel	✓		SAA	-
	•	Other, specify.	Lala Rukh Tomb		✓	-	-
			Wah Gardens		✓	-	-
			Sirkap		✓	-	-
			Mohra Moradu		✓	-	-
			Dharam Rajika		✓	-	-
			Taxila Museum		✓	-	-
			Patriata Hill Station		✓	-	-
			GPO Chowk , Mall Road		✓	-	-
			Tench Bhatta Bazar		✓	-	-
			TDCP sightseeing bus terminal		✓	-	-
			TDCP Khajut Hill Station		✓	-	-
			TDCP Dhanoi		✓	-	-
Dharabi Lake		✓	-	-			
Katas Raj		✓	-	-			
TDCP Kallar Kahar		✓	-	-			
TDCP Dhok Talian		✓	-	-			
Rohtas Fort		✓	-	-			



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Daud Khel		✓	-	
	Does the subproject involve any prior clearance from the Archaeology Department for either the conservation or management of heritage sites or vicinities? (Yes/ No). If yes, which?		Lala Rukh Tomb	✓		The site is proposed by the Director-General (DG) DGA. NOC has already been granted by the DG DGA. (refer to Section 3.2.1 for detail)	-
			Wah Gardens	✓		SAA	-
			Sirkap	✓		SAA	-
			Mohra Moradu	✓		SAA	-
			Dharam Rajika	✓		SAA	-
			Taxila Museum	✓		SAA	-
			Patriata Hill Station		✓	The site owned by TDCP and NOC is obtained from TDCP for proceeding.	-
			GPO Chowk , Mall Road		✓	SAA	-
			Tench Bhatta Bazar		✓	SAA	-
			TDCP sightseeing bus terminal		✓	SAA	-
			TDCP Khajut Hill Station		✓	SAA	-
			TDCP Dhanoi		✓	SAA	-
			Dharabi Lake		✓	SAA	-
			Katas Raj	✓		The site is proposed by the Director-General (DG) DGA. NOC has already been granted by the DG DGA. (refer to Section 3.2.1 for detail)	-
			TDCP Kallar Kahar		✓	The site owned by TDCP and NOC is obtained from TDCP for proceeding	-
			TDCP Dhok Talian		✓	SAA	-
			Rohtas Fort	✓		The site is proposed by the Director-General (DG) DGA. NOC has already been granted by the DG DGA. (refer to Section 3.2.1 for detail)	-
				TDCP Daud Khel		✓	The site owned by TDCP and NOC is obtained from TDCP for proceeding
<b>Social</b>							
	Will the subproject create significant/limited/no social impacts?						-
	• Land acquisition resulting in		Lala Rukh Tomb		✓	NA	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
	loss of income from agricultural land, plantation or other existing lands.	Mohra Moradu		✓	NA	-	
		Dharam Rajika		✓	NA	-	
		Taxila Museum		✓	NA	-	
		Patriata Hill Station		✓	NA	-	
		GPO Chowk , Mall Road		✓	NA	-	
		Tench Bhatta Bazar		✓	NA	-	
		TDCP sightseeing bus terminal		✓	NA	-	
		TDCP Khajut Hill Station		✓	NA	-	
		TDCP Dhanoi		✓	NA	-	
		Dharabi Lake		✓	NA	-	
		Katas Raj		✓	NA	-	
		TDCP Kallar Kahar		✓	NA	-	
		TDCP Dhok Talian		✓	NA	-	
		Rohtas Fort		✓	NA	-	
		TDCP Daud Khel		✓	NA	-	
	• Impact on livelihood and economic activity.	Lala Rukh Tomb		✓	NA	-	
		Wah Gardens		✓	NA	-	
		Sirkap		✓	NA	-	
		Mohra Moradu		✓	NA	-	
		Dharam Rajika		✓	NA	-	
		Taxila Museum		✓	NA	-	
		Patriata Hill Station		✓	NA	-	
		GPO Chowk , Mall Road		✓	NA	-	
		Tench Bhatta Bazar		✓	NA	-	
		TDCP sightseeing bus terminal		✓	NA	-	





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-
			TDCP Dhok Talian		✓	NA	-
			Rohtas Fort		✓	NA	-
			TDCP Daud Khel		✓	NA	-
	•	Land acquisition resulting in the relocation of households.	Lala Rukh Tomb		✓	NA	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-
			Mohra Moradu		✓	NA	-
			Dharam Rajika		✓	NA	-
			Taxila Museum		✓	NA	-
			Patriata Hill Station		✓	NA	-
			GPO Chowk , Mall Road		✓	NA	-
			Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-
			TDCP Dhok Talian		✓	NA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Rohtas Fort		✓	NA	-
			TDCP Daud Khel		✓	NA	-
	• Any reduction of access to traditional dependent communities (to areas where they earn for their primary or substantial livelihood).		Lala Rukh Tomb		✓	NA	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-
			Mohra Moradu		✓	NA	-
			Dharam Rajika		✓	NA	-
			Taxila Museum		✓	NA	-
			Patriata Hill Station		✓	NA	-
			GPO Chowk , Mall Road		✓	NA	-
			Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-
			TDCP Dhok Talian		✓	NA	-
			Rohtas Fort		✓	NA	-
			Wah Gardens		✓	NA	-
• Any displacement or adverse impact on tribal		Lala Rukh Tomb		✓	NA	-	
		Wah Gardens		✓	NA	-	
		Sirkap		✓	NA	-	
		Mohra Moradu		✓	NA	-	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category	
	settlement(s).		Dharam Rajika		✓	NA	-	
			Taxila Museum		✓	NA	-	
			Patriata Hill Station		✓	NA	-	
			GPO Chowk , Mall Road		✓	NA	-	
			Tench Bhatta Bazar		✓	NA	-	
			TDCP sightseeing bus terminal		✓	NA	-	
			TDCP Khajut Hill Station		✓	NA	-	
			TDCP Dhanoi		✓	NA	-	
			Dharabi Lake		✓	NA	-	
			Katas Raj		✓	NA	-	
			TDCP Kallar Kahar		✓	NA	-	
			TDCP Dhok Talian		✓	NA	-	
			Rohtas Fort		✓	NA	-	
			TDCP Daud Khel		✓	NA	-	
	•	Adverse impacts to women, including economic and safety concerns.		Lala Rukh Tomb		✓	NA	-
				Wah Gardens		✓	NA	-
				Sirkap		✓	NA	-
				Mohra Moradu		✓	NA	-
				Dharam Rajika		✓	NA	-
				Taxila Museum		✓	NA	-
				Patriata Hill Station		✓	NA	-
				GPO Chowk , Mall Road		✓	NA	-
				Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-	



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-
			TDCP Dhok Talian		✓	NA	-
			Rohtas Fort		✓	NA	-
			TDCP Daud Khel		✓	NA	-
	•	Impact on infrastructure (roads, water supply, any other type of infrastructure)	Lala Rukh Tomb		✓	No impact on roads and water supply and or any other infrastructure are perceived.	-
			Wah Gardens		✓	NA	-
			Sirkap		✓	NA	-
			Mohra Moradu		✓	NA	-
			Dharam Rajika		✓	NA	-
			Taxila Museum		✓	NA	-
			Patriata Hill Station		✓	NA	-
			GPO Chowk , Mall Road		✓	NA	-
			Tench Bhatta Bazar		✓	NA	-
			TDCP sightseeing bus terminal		✓	NA	-
			TDCP Khajut Hill Station		✓	NA	-
			TDCP Dhanoi		✓	NA	-
			Dharabi Lake		✓	NA	-
			Katas Raj		✓	NA	-
			TDCP Kallar Kahar		✓	NA	-
			TDCP Dhok Talian		✓	NA	-



Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
•	Other, specify.	Rohtas Fort		✓	NA	-	
		TDCP Daud Khel		✓	NA	-	
		Lala Rukh Tomb		✓	NA	-	
		Wah Gardens		✓	NA	-	
		Sirkap		✓	NA	-	
		Mohra Moradu		✓	NA	-	
		Dharam Rajika		✓	NA	-	
		Taxila Museum		✓	NA	-	
		Patriata Hill Station		✓	NA	-	
		GPO Chowk , Mall Road		✓	NA	-	
		Tench Bhatta Bazar		✓	NA	-	
		TDCP sightseeing bus terminal		✓	NA	-	
		TDCP Khajut Hill Station		✓	NA	-	
		TDCP Dhanoi		✓	NA	-	
		Dharabi Lake		✓	NA	-	
		Katas Raj		✓	NA	-	
		TDCP Kallar Kahar		✓	NA	-	
		TDCP Dhok Talian		✓	NA	-	
		Rohtas Fort		✓	NA	-	
		TDCP Daud Khel		✓	NA	-	
		<b>Overall Assessment</b>					
	Subproject is declined	Lala Rukh Tomb		✓	-	-	
		Wah Gardens		✓	-	-	
		Sirkap		✓	-	-	
		Mohra Moradu		✓	-	-	





Sr. #	Screening Criteria		Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
			Dharam Rajika		✓	-	-
			Taxila Museum		✓	-	-
			Patriata Hill Station		✓	-	-
			GPO Chowk , Mall Road		✓	-	-
			Tench Bhatta Bazar		✓	-	-
			TDCP sightseeing bus terminal		✓	-	-
			TDCP Khajut Hill Station		✓	-	-
			TDCP Dhanoi		✓	-	-
			Dharabi Lake		✓	-	-
			Katas Raj		✓	-	-
			TDCP Kallar Kahar		✓	-	-
			TDCP Dhok Talian		✓	-	-
			Rohtas Fort		✓	-	-
			TDCP Daud Khel		✓	-	-
•	Subproject is accepted		Lala Rukh Tomb	✓			-
			Wah Gardens	✓			-
			Sirkap	✓			-
			Mohra Moradu	✓			-
			Dharam Rajika	✓			-
			Taxila Museum	✓			-
			Patriata Hill Station	✓			-
			GPO Chowk , Mall Road	✓			-
			Tench Bhatta Bazar	✓			-
			TDCP sightseeing bus terminal	✓			-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
		TDCP Khajut Hill Station	✓			-
		TDCP Dhanoi	✓			-
		Dharabi Lake	✓			-
		Katas Raj	✓			-
		TDCP Kallar Kahar	✓			-
		TDCP Dhok Talian	✓			-
		Rohtas Fort	✓			-
		TDCP Daud Khel	✓			-
•	The subproject is classified as environmental Category A and requires an in-depth Environmental and Social Impact Assessment and an Environmental Management Plan.	Lala Rukh Tomb		✓		-
		Wah Gardens		✓		-
		Sirkap		✓		-
		Mohra Moradu		✓		-
		Dharam Rajika		✓		-
		Taxila Museum		✓		-
		Patriata Hill Station		✓		-
		GPO Chowk , Mall Road		✓		-
		Tench Bhatta Bazar		✓		-
		TDCP sightseeing bus terminal		✓		-
		TDCP Khajut Hill Station		✓		-
		TDCP Dhanoi		✓		-
		Dharabi Lake		✓		-
		Katas Raj		✓		-
	TDCP Kallar Kahar		✓		-	
	TDCP Dhok Talian		✓		-	



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
		Rohtas Fort		✓		-
		TDCP Daud Khel		✓		-
•	The subproject is classified as environmental Category B and requires an Environmental Management Plan.	Lala Rukh Tomb	✓			B
		Wah Gardens	✓			B
		Sirkap	✓			B
		Mohra Moradu	✓			B
		Dharam Rajika	✓			B
		Taxila Museum	✓			B
		Patriata Hill Station	✓			B
		GPO Chowk , Mall Road	✓			B
		Tench Bhatta Bazar	✓			B
		TDCP sightseeing bus terminal	✓			B
		TDCP Khajut Hill Station	✓			B
		TDCP Dhanoi	✓			B
		Dharabi Lake	✓			B
		Katas Raj	✓			B
		TDCP Kallar Kahar	✓			B
		TDCP Dhok Talian	✓			B
		Rohtas Fort	✓			B
TDCP Daud Khel	✓			B		
•	The	Lala Rukh Tomb		✓		-



Sr. #	Screening Criteria	Site Name	Yes	No	Explanation (In-case of Yes)	Assessment of Category
	subproject is classified as environmental Category C and does not require an Environmental Management Plan.	Wah Gardens		✓		-
		Sirkap		✓		-
		Mohra Moradu		✓		-
		Dharam Rajika		✓		-
		Taxila Museum		✓		-
		Patriata Hill Station		✓		-
		GPO Chowk , Mall Road		✓		-
		Tench Bhatta Bazar		✓		-
		TDCP sightseeing bus terminal		✓		-
		TDCP Khajut Hill Station		✓		-
		TDCP Dhanoi		✓		-
		Dharabi Lake		✓		-
		Katas Raj		✓		-
		TDCP Kallar Kahar		✓		-
		TDCP Dhok Talian		✓		-
Rohtas Fort		✓		-		
TDCP Daud Khel		✓		-		



### 3.1 Occupational Health and Safety (OHS) Risks

Occupational Health and Safety (OHS) risks perceived during the execution of various sub-projects tasks/activities are presented in Table 9 below;

**Table 20: Task/s and associated OHS risks**

Sr. #	Activity/ Task	H&S Risks
1	Excavation for foundation of the toilet blocks up to 5 feet.	<ul style="list-style-type: none"> <li>- No risk of cave in during excavation is perceived as the maximum excavation is up to 5 ft.</li> <li>- Low risk of falling into the excavated area during the night.</li> <li>- Low risks associated with the use of small excavator (3 ft. wide bucket), if mentioned in contractor's work plan.</li> <li>- Low risk of abrasion on hand/ feet during use of handheld tools/equipment.</li> </ul>
2	Excavation up to 10 feet. (for Septic Tanks and Soakage Pits only)	<ul style="list-style-type: none"> <li>- Minor to moderate risk of cave in during excavation.</li> <li>- Risk of falling into the excavated area during the night.</li> <li>- Risks associated with the use of a small excavator (3 ft. wide bucket), if mentioned in the contractor's work plan.</li> <li>- Low risk of abrasion on hand/ feet during use of handheld tools/equipment.</li> </ul>
3	Brickwork	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> <li>- Low scaffolding related risks as the building are single storey with a maximum height of 11 ft.</li> </ul>
4	Installation of steel chaukat	<ul style="list-style-type: none"> <li>- Low risk of abrasion on hand/ feet during use of handheld tools/equipment.</li> </ul>
5	Fabrication of mild steel reinforcement for cement concrete i/c cutting, bending, laying in position, making joints and fastening.	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>
6	RCC works in roofs, beams, columns and girders	<ul style="list-style-type: none"> <li>- Low scaffolding related risk as the building is single storey with a maximum height of 11 ft.</li> <li>- Ladder safety issues.</li> </ul>
7	Ceramic tile laying work	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>
8	Providing and fixing aluminium fly screen comprising of Fibber/aluminium wire gauze fixed in the aluminium frame.	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>
9	Woodworks/ doors	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>
10	Applying emulsion paint (3 coats)	<ul style="list-style-type: none"> <li>- Low risk of irritation of skin, eyes and throat from emulsion fumes.</li> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> <li>- Ladder safety issues.</li> </ul>
11	Laying of tuff pavers	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>
12	Electrical work i.e. installation of PVC pipes; copper wires; switches; ceiling	<ul style="list-style-type: none"> <li>- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.</li> </ul>





Sr. #	Activity/ Task	H&S Risks
	fan (4 No.); exhaust fan (10 No.); tube lights; water geyser (1No.) etc.	- Risk of electric shock during connection to the mainline.
13	Installation of water supply, plumbing and sanitary i.e. washbasins (6 No.); water mixer (6 No.); plastic flush tanks (4 No.); installation of tube well (1 No.) at 100 ft. depth; laying, cutting, jointing of PPRC and UPVC pipes etc.	- Low risk of abrasion/cut on hand/ feet during use of handheld tools/equipment.
14	Various works activities/interactions of labourers may result in the spread of COVID-19	- Risk of COVID-19

### 3.2 Applicability of Clearances/ NOCs

#### 3.2.1 Clearance/ NOC from Directorate General of Archaeology

The majority of sub-project sites are either located; within the earthen ground of world heritage site and or national archaeological site; or within the buffer zone of the world heritage site and or national archaeological site, therefore owned and protected by the Directorate General of Archaeology under The Antiquities Act. 1975 of the Government of Punjab<sup>25</sup>.

According to the Antiquities Act. 1975 “no development plan or scheme or new construction on, or within a distance of two hundred feet of, a protected immovable antiquity shall be undertaken or executed except with the approval of the Director-General, Archaeology department.”

Keeping in view the above requirement under Antiquities Act. 1975, the No objection certificate (NOC) has already been issued by the DG Directorate General of Archaeology. Moreover, the locations of new toilet blocks have also been provided by the DG Directorate General of Archaeology ensuring these do not violate the Antiquities Act. 1975 (refer to Annexure A for detail).

#### 3.2.2 Applicability of UNESCO, World Heritage Convention (WHC) 1972,

According to the UNESCO, World Heritage Convention (WHC) 1972, each State Party (national government) is responsible for protecting its cultural and natural World Heritage properties through the development and implementation of national law/s<sup>26</sup>. The national government can delegate its powers depending upon the particular country's form of government<sup>26</sup>. In the case of the Government of Pakistan and Punjab in particular these powers are delegated to the DGA, Government of Punjab. The DG DGA is the officer authorised to ensure the implementation of The Antiquities Act. 1975<sup>27</sup> and The Punjab Special Premises (Preservation), Ordinance, 1985<sup>28</sup>.

As mentioned above the NOC required for the execution of the sub-project at all selected sites has already been issued by the DG DGA. Moreover, the locations of new toilet blocks have also been provided by the DG DGA ensuring these do not violate the Antiquities Act. 1975 (refer to Annexure A for detail).

<sup>25</sup>

[https://archaeology.punjab.gov.pk/list-of-monuments-museums?field\\_district\\_value=17&field\\_category\\_value=4](https://archaeology.punjab.gov.pk/list-of-monuments-museums?field_district_value=17&field_category_value=4)

<sup>26</sup> <http://whc.unesco.org/en/conventiontext/>

<sup>27</sup> <http://punjablaws.gov.pk/laws/1432a.html>

<sup>28</sup> <http://punjablaws.gov.pk/laws/366.html>



### **3.2.3 Clearance/ NOC from Punjab EPA**

The proposed sub-project does not fall in Schedule – I and II of the Punjab Environmental Protection Act; 2017 therefore no approval from EPA is required for the execution of this sub-project.

### **3.3 Applicability of WB OP 4.11 Physical Cultural Resource**

The majority of sub-project sites are either located; within the earthen ground of world heritage site and or national archaeological site; or within the buffer zone of the world heritage site and or national archaeological site (refer to relevant –sub-project sites information in Section 2) therefore WB OP 4.11 is triggered (Physical Cultural Resources – PCR). Following Mitigation measures are proposed in the project WB approved ESMF;

- A PCR plan in accordance with World Bank OP 4.11 will be prepared if required.
- A chance find procedure included in the ESMF will be adopted.

The negative impacts to any Cultural Heritage site include; destruction, wear, removal, burial, modification, change of use, neglect, denial of access and desecration, as defined in Section 6.5 of project ESMF (refer to Table 10 for detail about each site and associated negative impact). However, none of these negative impacts are perceived from the sub-project construction activities at any site.

However, as some of the sub-project sites are located within close proximity of the built heritage therefore, a Physical Cultural Resource Management Plan (PCRMP) has been prepared and provided as Annexure C. This PCRMP will be made part of the Civil Work Contract Agreement of all sub-project Sites Works.



**Table 21: Impact Assessment on Physical Cultural Recourse**

Sub-Project Site	Will the project will result in any of the following negative impacts on Tangible/Physical Cultural Resource (Artistic Creations, Built Heritage i.e. Buildings and Monuments)									Will the project involves conservation of Tangible/Physical Cultural Resource	Will the project involve management of tourist visiting cultural heritage resources that in turn will help in generating well-known advantages i.e. Visitor fees, concessions and donations that will ultimately help in providing funds for restoration and protection efforts of cultural resource
	Modification	Wear	Removal	Burial	Destruction	Change of Use	Neglect	Denial of Access	Desecration		
Wah Gardens	No	No	No	No	No	No	No	No	No	No	Yes through the provision of toilet facilities.
Sirkap	No	No	No	No	No	No	No	No	No	No	Same as Above (SAA)
Mohra Moradu	No	No	No	No	No	No	No	No	No	No	SAA
Dharmarajika	No	No	No	No	No	No	No	No	No	No	SAA
Taxila Museum	No	No	No	No	No	No	No	No	No	No	SAA
Lala Rukh Tomb	No	No	No	No	No	No	No	No	No	No	SAA
Katas Raj	No	No	No	No	No	No	No	No	No	No	SAA
Rohtas Fort	No	No	No	No	No	No	No	No	No	No	SAA



#### 4. Stakeholders Consultation/s

Stakeholders' consultations were undertaken with officials of DGA and tourists during the site visits conducted on March 16-20, 2022. The outcome of consultations with officials of DGA and tourists is presented below;

- Better and well-maintained toilet facilities will be a good relief for the elderly and the families with children.
- Toilet facility is essential in public places as the condition of existing toilets is poor.
- The condition inside the existing toilets is unhygienic, especially for the kids.
- Better facilities will help tourists to spend quality time at the site.

The list of persons consulted during sites visits is provided in Table 11, while the pictorial presentation of the consultation process is presented in Figure 33.

**Table 22: List of persons consulted**

Sr. #	Name	Designation
1	Naseer Uddin	Caretaker Lala Rukh Tomb
2	Maqsood	Resident Hasan Abdal
3	M Qadeer	Caretaker dhanoi
4	Muhammad ubaid	Resort Incharge
5	Kamran	Taxila Representative
6	Ijaz Shah	Patriata Chair lift, Deputy director
7	Khalid Jameel	Tench Bazar Representative
8	Abu ul hassan	TDCP office Mall Road Representative
9	Tariq Rabani	TDCP incharge Kalar Kahar
10	Nasir Abbas ali	TDCP representative Katas
11	Malak Azmat Ali	Representative Dhok Talian
12	Ashraf Ali	Representative Dharabi
13	Asif Abbas	Tourist
14	Naheed	Tourist
15	Shaukat	Tourist
16	Anjum	Tourist
17	Ejaz Butt	Tourist
18	Jabir Mehmood	Tourist
19	Mubashir	Tourist
20	Asad Abbas	Tourist
21	Shahid	Tourist
22	Wasim	Tourist
23	Muhammad Rafiq	Tourist
24	Ahmed	Tourist
25	Shafiq Ahmed	Tourist
26	Ammara	Tourist
27	Zareena	Tourist
28	Nasreen	Tourist





Figure 91: Pictorial Presentation of Consultations





## **5. EHS Risks during Operation and Maintenance (O&M) of the Sub- Project**

Low risk of handling and use of detergents is perceived during the O&M of the sub-project sites. These could be easily mitigated with the use of appropriate PPEs and preparation of material safety data sheet and its implementation by the officials of DGA deputed at particular sub-project site. O&M staff of DGA already deputed at respective sub-project site will be responsible for day-to-day cleaning, repair and maintenance. Impact and its mitigation measures are included in table 23 under Operational Phase of the Project.



### 5.1 Environmental Management and Monitoring Approach

Beyond general OHS minor risks, no further impacts are perceived during the execution of the sub- project at all sites. The environmental management and monitoring approach to be adopted during the construction and operational phase of the sub-project sites is presented in Table 23 below. Approximate cost of implementation of EMP during construction phase of the project is 2% of the total project cost (toilets block for northern zone of Punjab) i.e. 3.8million PKR. Approximate cost per site is 0.21million PKR (total number of sites under northern zone is 18).

**Table 23: Environmental Management and Monitoring Approach**

Sr. #	Activity/ Task	Mitigation/ Monitoring requirements	Responsibility	
			Implementation	Monitoring
<b>Construction Phase</b>				
1	Excavation up to 5 feet.	<ul style="list-style-type: none"> <li>• General excavation related SOPs to be adopted i.e.                             <ul style="list-style-type: none"> <li>- provision of barricading around the excavation,</li> <li>- no unauthorised entry,</li> <li>- use of PPEs</li> <li>- housekeeping</li> <li>- green cover around the excavated area to avoid unauthorised entry and avoid visual access.</li> </ul> </li> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>	Contractor	Daily by Supervision Consultants & monthly or quarterly by PTEGP E&S Staff.
2	Excavation up to 10 feet.	<ul style="list-style-type: none"> <li>• Permit to Work System to be implemented in case of excavation for septic tank and soakage pit.</li> <li>• General excavation related SOPs to be adopted i.e.                             <ul style="list-style-type: none"> <li>- provision of barricading around the excavation,</li> <li>- no unauthorised entry,</li> <li>- use of PPEs</li> <li>- housekeeping</li> <li>- green cover around the excavated area to avoid unauthorised entry and avoid visual access.</li> </ul> </li> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>	Same as Above (SAA)	SAA



3	Brickwork	<ul style="list-style-type: none"> <li>• General occupational H&amp;S SOPs related to masonry works i.e. Use of PPEs, housekeeping etc.</li> <li>• Implementation of scaffolding safety SOPs i.e. installation of scaffolding on a level and hard surface, prior inspection by a competent person.</li> <li>• Ladder safety SOPs i.e. placing on a hard and level surface, three-point contact etc.</li> <li>• Green cover around the construction site to avoid unauthorised entry and avoid visual access.</li> </ul>	SAA	SAA
---	-----------	---	-----	-----

Sr. #	Activity/ Task	Mitigation/ Monitoring requirements	Responsibility	
			Implementation	Monitoring
		<ul style="list-style-type: none"> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>		
4	Installation of steel chaukat	<ul style="list-style-type: none"> <li>• General occupational H&amp;S SOPs related to masonry works i.e. Use of PPEs, housekeeping etc.</li> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>	SAA	SAA
5	Cutting, bending, laying and fastening of mild steel bars.	SAA	SAA	SAA
6	RCC works in roofs, beams, columns and girders	SAA	SAA	SAA
7	Ceramic tile laying work	SAA	SAA	SAA
8	Fixing aluminium fly screen.	SAA	SAA	SAA
9	Woodworks/ doors	SAA	SAA	SAA
10	Providing and laying of tuff pavers	SAA	SAA	SAA
11	General electrical work i.e. installation of PVC pipes; wires; switches; ceiling fan etc.	<ul style="list-style-type: none"> <li>• General occupational H&amp;S SOPs related to electrical works i.e. Use of PPEs, housekeeping etc.</li> <li>• Ladder safety SOPs i.e. placing on a hard and level surface, three-point contact etc.</li> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>	SAA	SAA
12	Applying emulsion paint (3 coats)	<ul style="list-style-type: none"> <li>• Ladder safety SOPs i.e. placing on a hard and level surface, ensuring three-point contact etc.</li> <li>• Use of appropriate PPE i.e. gloves and mask etc.</li> <li>• Implementation of COVID-19 SOPs for construction sites issued by GOPb.</li> </ul>	SAA	SAA
<b>Operational Phase</b>				



1	General cleaning	<ul style="list-style-type: none"> <li>• General OHS SOPs relating to cleaning i.e. use of appropriate PPEs, preparation of material safety data sheet and its implementation.</li> </ul>	Site staff of DGA	Incharge of site deputed by DGA
2	Wastewater, Solid Waste, adequate drainage, Cleaning Issues	<ul style="list-style-type: none"> <li>• Land owner of the site i.e. Archeological Department or TDCP are responsible of maintaining improved or new toilet block constructed under this project.</li> <li>• Toilet blocks should be inspected on regular basis by the above authorities and ensure that they are in working conditions in hygienic way.</li> <li>• Septic tank should be pumped as per the recommendation of the designer.</li> <li>• Solid waste bins should be provided at toilets. These bins should be empty at end of every busy day (usually busy during weekend and public holidays).</li> </ul>		



## 5.2 HSE Training and Associated Cost

On site hands-on training will be provided by the Environmental Expert (EE) of Construction Supervision Consultants (CSC) to Contractor’s staff during mobilisation of contractor at each sub-project site therefore no additional cost is perceived beside regular remuneration of EE CSC. Detail of training/s to be imparted during the construction phase of the sub-project is provided in Table 13 below.

Two percent of total sub-project cost has been added as EMP implementation cost in all Contract Agreement.

However, it is pertinent to mentioned here the contractor and or every employer is bound to provide its employees necessary PPEs and training free of cost according to The Punjab Occupational Safety and Health Act 2019. The Punjab OHS Act 2019, clearly states that *“Every employer shall; take all possible and reasonably practicable measures to ensure safety and health of the employees at the workplace; arrange for training of safety and health representatives every year to attend health and safety training as approved by the Government and shall bear all expenses thereof; and, provide where necessary to the employees, at his own expense, if hazards cannot otherwise be eliminated or controlled, adequate protective clothing and protective equipment as may be approved by the Government, to prevent every risks of harm and of adverse effects on health.”*

### Training Plan

Sr. #	Topic	Duration	Trainees	Trainer
1	EMP Training	Once during contractor’s mobilisation at each sub-project site for maximum 1hr.	Contractor Staff & Labourers	Environmental Expert of Supervision Consultants
2	Toolbox Talk	Twice a week for maximum of 10 min on selected topics based on site observations made by Environment Specialist of PTEGP.	Labourers	Contractor’s Senior Staff/ Site Incharge





## 6. Findings

Following are the finding of the E&SS process;

- The majority of sub-project sites are either located; within the earthen ground of world heritage site and or national archaeological site; or within the buffer zone of the world heritage site and or national archaeological site but will not result in any negative impact whatsoever i.e. destruction, wear, removal, burial, modification, change of use, neglect, denial of access and desecration. However, keeping in view the requirement as per WB OP 4.11, a Physical Cultural Resource Management Plan (PCRMP) has been prepared and provided as Annexure C. This PCRMP will be made part of the civil works contract agreement of all sub-project site works.
- NOC required for the execution of the sub-project is already issued by the DG DGA. The site/s for new toilet block/s in all sub-project sites are proposed by the DG DGA.
- The proposed sites are government land/ the property of the Directorate General of Archaeology, therefore no land acquisition is involved.
- The sub-project will have no adverse environmental and social (E&S) impacts. General OHS related issues are perceived as limited to masonry works.
- All proposed toilet blocks have access to disabled.
- The execution of the sub-project will not involve any tree cutting and removal of vegetation.
- Effluents generated during the operation phase will be disposed into the existing WASA/TMA connection and or into the septic tanks that will be constructed for its treatment.
- In addition, the proposed sub-project does not fall in Schedule – I and II of the Punjab Environmental Protection Act; 2017 therefore no approval from EPA is required for the execution of this sub-project.



## Annexure A: NOC from Archaeological Department



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E Mail: [arch.punjab@gmail.com](mailto:arch.punjab@gmail.com)

Secretary Tourism  
Dy. No. 1526  
Dated: 24/9/21  
ADDL. SECRETARY  
DY. SECRETARY (ADMIN)  
DY. SECRETARY (P)

No. DGA- I (225)/Arch/2021/ 1869  
DIRECTORATE GENERAL OF ARCHAEOLOGY  
GOVERNMENT OF THE PUNJAB  
TOURISM DEPARTMENT  
OLD FORT LAHORE

Dated the 13th September, 2021

To,

The Secretary,  
Tourism Department,  
Government of the Punjab,  
Lahore.

Dr. No. 2/02.

Date: 14/09/2021

R&I Tourism Department

**Subject: - PROVISION AND IMPROVEMENT OF TOILETS, CAFÉ, SOLAR PANELS, TOURIST INFORMATION CENTERS AND ROHTAS MUSEUM GALLERY**

Kindly refer to meeting held under the Chairmanship of Secretary Tourism Department in the Committee Room of Tourism Department dated 10.03.2021 on the subject cited above.

It is submitted that during the meeting the Chair directed as follows:

- PTEGP will provide new toilets (international standard) and make improvement in the existing ones. The design of toilets will be in harmony with specific heritage site.
- The Director General of Archaeology will provide locations for new toilets (international standards) at Shalamar Garden, Jahangir's Tomb, Harappa Museum, Hiran Minar, Rohtas Fort, Taxila Museum and Wah Garden.
- The PTEGP will also make a plan for the improvement of Rohtas Fort museum gallery in consultation with Archaeology department which includes improvement of the museum gallery building, display of objects and lighting system etc.
- The PTEGP will also design and provide tourist information centers (TICs) at key heritage sites for which Directorate General of Archaeology will specify location and provide requisite area for the purpose.



- v. The Directorate General of Archaeology will also nominate focal person for identifying locations for Washrooms, Cafe, Solar Panel and TIC to facilitate the PTEGP for an early execution.

In pursuance of the directions of the Chair, the Directorate General of Archaeology has no objection for provision of above tourist facilities at above mentioned sites and the detail of various activities alongwith location coordinates are submitted herewith for kind perusal, please.

*[Signature]*  
 13/10/21  
 DIRECTOR GENERAL ARCHAEOLOGY

The detail of various activities alongwith location with coordinates are as under:

Name of the Activity	Shalamar Gardens	Jahangir's Tomb	Birsa Minar	Rohtas Fort	Harappa Museum	Taxila Museum	Wah Garden
	1	2	3	4	5	6	7
Provision for New Toilet Blocks	31.58524 74.38472	31.62138 74.30119	31.44103 73.95742	32.96403 73.57461	30.628894 72.86908	--	33.80072 72.83182
Improvement of Existing Washroom	31.58524 74.38472	--	--	32.96403 73.57461	30.628894 72.86908	33.74595 72.81838	--
Solar Panels	31.58410 74.38072	31.62181 74.29823	31.73994 73.95665 & 31.741065 73.95369	32.9636 73.5744	30.62529 72.86117	33.74801 72.81821	33.800561 72.69856
Cafeteria	31.58623 74.38362	31.62100 74.30103	Improvement of existing	32.96378 73.57321	30.62579 72.86610	30.627003 72.86797	33.80701 72.83092
Tourist Information Centre	--	--	--	32.9625 73.5736	30.62511 72.86687	33.74595 72.81844	33.80102 72.69872
Focal Person	Mr. Atiq-ur-Rehman Deputy Director E&M./Mr. Mukhtar Ahmad SDO	Mr. Atiq-ur-Rehman Deputy Director E&M./Mr. Qazi Ashraf Archaeological Conservator	Mr. Atiq-ur-Rehman Deputy Director E&M./Mr. Waqas Sub-Engineer	Mr. Imran Zahid, SDO	Muhammad Hassan Deputy Director/ Mr. Alimud Nawaz, Assistant Curator	Mr. Iqbal Khan, Deputy Director/ Mr. Ali Gohar, Archaeological Conservator	Mr. Iqbal Khan Deputy Director/ M Ali Gohar Archaeological Conservator



## NOC from TDCP

**FAX/URGENT**



**042-99059304**

No.22(23)PTEGP/RP/P&D/2022  
**GOVERNMENT OF THE PUNJAB  
PLANNING & DEVELOPMENT BOARD**

Dated Lahore, the 23<sup>rd</sup> February, 2022

To

**The Secretary, -  
Government of the Punjab,  
Finance Department,  
Lahore.**

*Attention: Section Officer (P&D)*

**Subject: DDSC MEETING OF SCHEME TITLED "CONSTRUCTION /  
RENOVATION OF TOILET BLOCKS AT DIFFERENT HERITAGE &  
TOURIST SITES IN CENTRAL, NORTH & SOUTH ZONES UNDER  
PUNJAB TOURISM FOR ECONOMIC GROWTH PROJECT  
(PTEGP)"**

I am directed to enclose herewith minutes of subject meeting for your  
information and further necessary action.

**(MUHAMMAD SALEEM ILYAS)  
ASSISTANT CHIEF (RP)**

**No. & Date Even:-**

A copy is forwarded for information and further necessary action to the:-

1. Sr. Chief (YASAT), Planning & Development Board, Lahore.
2. Chief (Tech.), Planning & Development Board, Lahore.
3. Chief (ECA), Planning & Development Board, Lahore.
4. Project Director, Punjab Tourism Economic Growth Project, 184-A Upper Mall, Lahore.

**ASSISTANT CHIEF (RP)**


**C.C:**

Secretary, P&D Board, Lahore.

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	<b>GOVERNMENT OF THE PUNJAB          PLANNING &amp; DEVELOPMENT BOARD          (RP/P&amp;D SECTOR)</b>
<b>MINUTES OF DDSC MEETING OF SCHEME TITLED "CONSTRUCTION / RENOVATION OF TOILET BLOCKS AT DIFFERENT HERITAGE &amp; TOURIST SITES IN CENTRAL, NORTH &amp; SOUTH ZONE UNDER PUNJAB TOURISM FOR ECONOMIC GROWTH PROJECT (PTEGP)" HELD UNDER THE CHAIRMANSHIP OF SECRETARY, P&amp;D BOARD ON 17.02.2022</b>	
Venue:	CR-III
Participants	List Attached at Annex-A

**Agenda Item 1: "Construction / Renovation of Toilet Blocks at Different Heritage & Tourist Sites in Central Zone Under Punjab Tourism for Economic Growth Project (PTEGP)"**

Opening the discussion, Chief (RP), P&D Board informed that Punjab Tourism for Economic Growth Project (PTEGP) is a World Bank funded project for generating the economic activities through rehabilitation/construction of Tourism spots in Punjab. The instant case has been submitted by PTEGP to construct / renovate the toilet blocks at different heritage and tourist sites in the 4 districts of Central Zone i.e. Lahore, Sheikhupura, Kasur, Sahiwal with the technical support of C&W Department. The cost estimates/PC-Is were prepared by C&W Department in consultation with Archaeology Department. These estimates are based on 1<sup>st</sup> Bi-Annual 2022 MRS rates at total cost of Rs.88.103 million with gestation period of 6 months (April, 2022 to September, 2022). The required funds would be provided out of the ADP 2021-22 allocation of the umbrella PC-I of PTEGP.

2. The site wise cost of each PC-I is as under: -

Sr. No.	No. of Sites	Location	Districts	No. of Sets	No. of Seats	Cost (M)	Remarks
<b>Central Zone</b>							
1.	1	Shalamar Gardens	Lahore	2	10	10,449	1- One Set for Ladies and Gents  2- One set in each set is for Special Persons and remaining for Normal Persons.
2.		Site-II		2	10	10,548	
3.	2	Jahangir Tomb	Lahore	2	10	10,449	
4.	3	Noor Jahan Tomb		2	10	10,001	
5.	4	TDCP Sightseeing Bus Terminal		2	2	3,836	
6.	5	Hiran Minar	SKP	2	10	9,291	
7.	6	Sheikhupura Fort		2	10	9,264	
8.	7	Harappa Museum	Sahiwal	2	10	14,327	
9.	8	TDCP Changa Manga Resort.	Kasur	2	10	9,938	
<b>G. Total-</b>				<b>18</b>	<b>82</b>	<b>88,103</b>	

*Handwritten signature*

Prepared with Comptroller





3. On the query of Member, PSD/Sr.Chief (YASAT), P&DB regarding the NOC of Archeology Department and O&M of these facilities, Project Director (PTEGP) apprised the house that all the proposed facilities and respective location have been proposed by the Archeology Department and the future O&M would also be the responsibility of their Department. Member, PSD/Sr.Chief (YASAT), P&DB has inquired about the final sewage disposal of these toilets. PD, PTEGP responded that disposal facility available at the site would be used, whereas, on sites where the sewage disposal system is not available, it would be constructed, which results in variation in cost at different proposed locations. He further informed that the detailed designs were prepared by the Design Consultant of PTEGP in consultation with all the stakeholders as per their demand.

4. Chief (RP), P&DB further apprised that in compliance to observations of P&D Board, PTEGP has submitted amended PC-I and cost has been reduced from Rs.88.103 million to Rs.81.458 million after deletion of 1% horticulture charges, 2% Design consultancy charges, 12.5% Departmental charges and 2% Supervision consultancy charges.

5. Member, (Edu.)/Sr. Chief (RP), P&DB inquired whether the proposed gestation period i.e. 6 months would be sufficient to complete these assignments. The representative of C&W Department replied that although the quantum of each facility/construction work is not a lengthy process but the proposed gestation period does not seem justified. Member (PSD/Sr. Chief (YASAT), P&DB endorsed the point of view of C&W Department and recommended to enhance the gestation period from 6 to 8 months.

#### Decision

The scheme was approved at total cost of Rs.81.458 million subject to the following conditions: -

- i. Gestation Period may be increased from 6 to 8 months (April, 2022 to November, 2022).
- ii. Operation & Maintenance would be the responsibility of Tourism/ Archeology Department.

#### *Agenda Item 2: "Construction / Renovation of Toilet Blocks at Different Heritage & Tourist Sites in North Zone under Punjab Tourism for Economic Growth Project (PTEGP)"*

6. Chief (RP), P&DB informed the house that under the instant project PTEGP has planned to provide the toilet facility in 5 districts of Punjab of Northern Zone i.e. Attock, Rawalpindi, Jhelum, Chakwal, Mianwali. The district wise details of cost estimates are as under:-



Septemb

Sr. No.	No. of Sites	Location	Districts	No. of Sets	No. of Seats	Cost (M)
1.	1	Lala Rukh Tomb	Attock	2	6	6.339
2.	2.	Wah Gardens	-	2	6	1.662

**Agenda Item 3: "Construction / Renovation of Toilet Blocks at different Heritage and Tourist Sites in South Zone under Punjab Tourism for Economic Growth Project (PTEGP)"**

8. PTEGP is going to provide the subject facility in 2 districts of Southern Zone i.e. DG Khan and Bahawalpur. The district wise details of cost estimates are as under:-

*(Rs. in million)*

Sr. No.	Location	District	Cost
1	Derawar Fort	Bahawalpur	10.997
2	Tomb Bibi Jiwandi	Bahawalpur	10.921
3	TDCP Lal Suhanra	Bahawalpur	5.997
4	Barthi	Bahawalpur	15.405
5	Muharki Top	DG Khan	16.353
6	Gulki Top	DG Khan	14.740
<b>Total</b>			<b>74.414</b>

8. The scheme was discussed in detail and it was agreed to provide the facility on the same analogy as it is planned in Central and North Zone. Cost has been reduced from Rs.74.414 million to Rs.67.208 million due to deletion of 1% horticulture charges, 2% Design consultancy charges, 12.5% Departmental charges and 2% Supervision consultancy charges.

**Decision**

The scheme was approved at total cost of Rs.67.208 million subject to the following conditions:

- i. Gestation Period may be increased from 6 to 8 months (April, 2022 to November, 2022).
- ii. Operation & Maintenance of these toilets would be the responsibility of Tourism/ Archeology Department.

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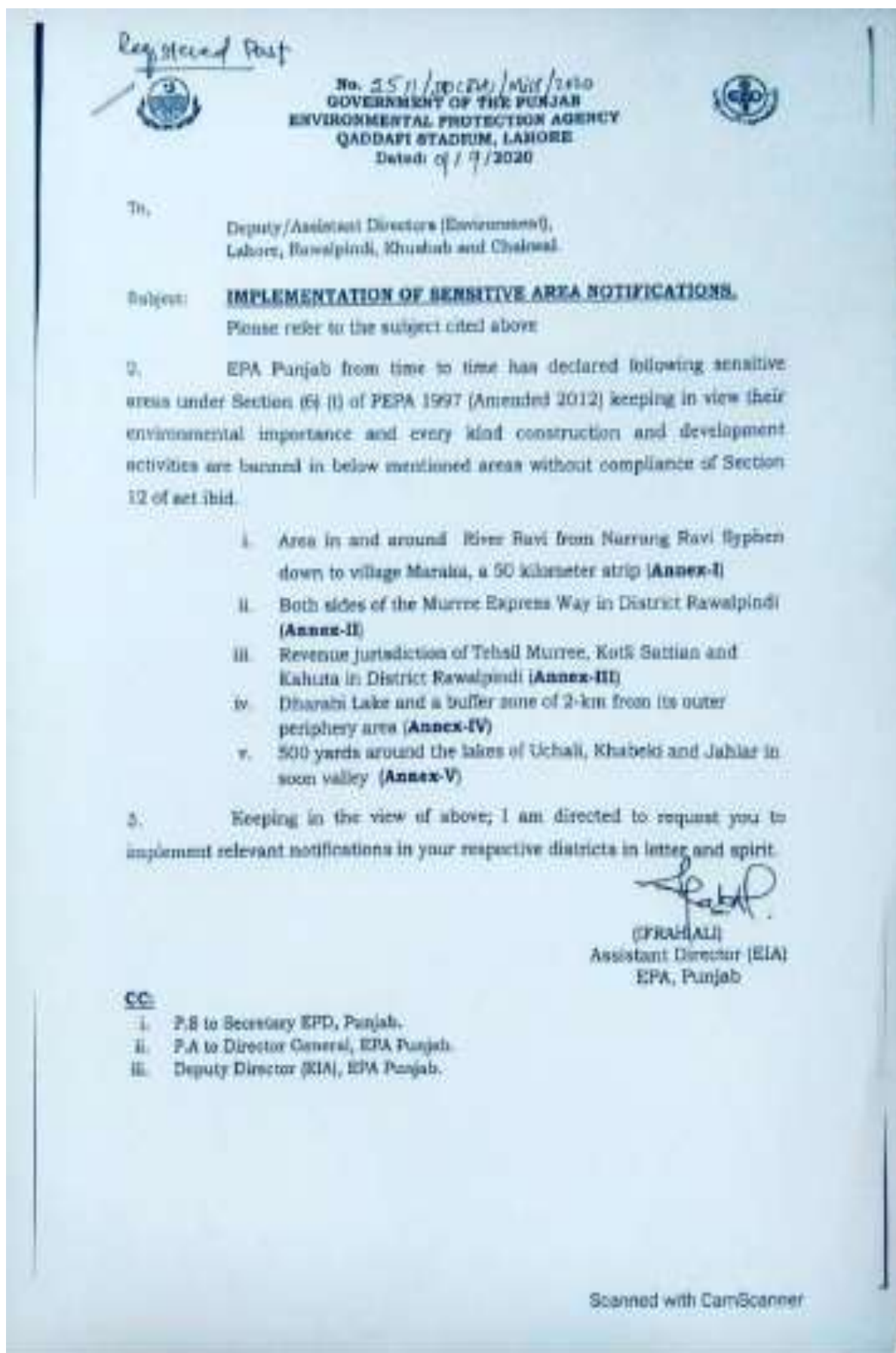




## **Sensitive Areas Notification**







**Annexure B: COVID-19 SOPs for Construction**



## Sites



Communication & Works Department  
Government of the Punjab  
Lahore

### احتیاطی ہدایات برائے (COVID-19) کورونا وائرس انفیکشن

یہ احتیاطی ہدایات تمام کنسٹرکشن سائٹس پر نافذ العمل محلوں کی اور محکمہ تعمیرات و مواصلات کے کنٹریکٹرز اور سپروائزرز کو عمل درآمد کو یقینی بنائیں گے۔

۱۔ یہ ہدایات تمام کنسٹرکشن سائٹس جن پر کام جاری ہے، یہ نمایاں طور پر پینڈنگ اور سٹریٹجک صورت میں آویزاں کی جائیں گی۔

۲۔ تمام حکمیداران اپنی کنسٹرکشن سائٹس پر جسمانی درجہ حرارت چیک کرنے کیلئے ٹھیکہ لپیر چیکر گن کی دستیابی یقینی بنائیں گے

۳۔ کنسٹرکشن سائٹس پر کام کرنے والے تمام عملے بشمول مزدور، لیٹائل سٹاف، ڈرائیور، سپروائزرز، سٹاف کا ٹھیکہ چیک روزانہ کام شروع کرنے سے پہلے چیک کیا جائے گا اور دیگر پھارڈ کھائے جائے گا۔

۴۔ کسی بھی مزدور یا دیگر عملے میں وائرس کی علامات ظاہر ہونے کی صورت میں فوری طور پر ضلعی انتظامیہ کو مطلع کیا جائے گا۔

۵۔ ایسے کسی بھی شخص کو جس میں گلے یا ناک کی بیماری مشابہت کام، کھانسی، نزلہ وغیرہ ہو، کو کام پر آنے کی اجازت نہ ہوگی۔

۶۔ کنسٹرکشن سائٹس پر ہاتھ دھونے کے انتظامات بشمول پانی و صابن کی دستیابی متعلقہ حکمیداران کی ذمہ داری ہوگی۔

۷۔ حکمیداران اس بات کو یقینی بنائیں گے کہ صبح کام شروع کرنے سے پہلے تمام عملے صابن سے ہاتھ دھوئے گا۔ اور ہر ایک کھٹے بعد کام پر موجود ہر فرد اپنے ہاتھ صابن سے دھوئے گا۔

۸۔ جس جگہ پر عملے کام کر رہا ہو وہاں پر کلورین سے پانی سے روزانہ سپرے کیا جائے گا تاکہ جو علاقہ جراثیم اور وائرس سے پاک رہے۔

۹۔ جہاں تک ممکن ہو اس بات کو یقینی بنایا جائے کہ مزدور اور دیگر عملے کام ختم ہونے کے بعد گھر جاتے سے پہلے صابن سے ہاتھ دھوئے اور کام والے کپڑے وہیں چھوڑ کر جائے

۱۰۔ اگر مزدور یا دیگر عملے کنسٹرکشن سائٹس پر ہی رہائش پذیر ہے تو ان کی رہائش پر مناسب سماجی فاصلے کو یقینی بنایا جائے۔

۱۱۔ کنسٹرکشن سائٹس پر ہر ٹیم کس محلول (Hand Sanitizers / Hand Wash etc) کی دستیابی اور استعمال یقینی بنایا جائے گا



## **Annexure C: Physical Cultural Resource Management Plan (PCRMP)**

### **Executive Summary**

The sub-project activities will not have any negative impacts to any Cultural Heritage site i.e. destruction, wear, removal, burial, modification, change of use, neglect, denial of access and desecration.

As the majority of sub-project sites are either located; within the earthen ground of world heritage site and or national archaeological site; or within the buffer zone of the world heritage site and or national archaeological site therefore WB OP 4.11 is triggered (Physical Cultural Resources – PCR).

Keeping in view the requirement under WB OP 4.11, this Physical Cultural Resources Plan has been prepared and will be made part of the Civil Contract Agreement of all sub-project sites.

### **Mitigation Measures/ Precautions**

#### **Pre-Construction:**

- Technical Design: Incompatible layout plan, engineering design and improper repair methods of the subproject's structures can undermine the historical value of PCRs, overall aesthetic beauty and ambience of the subproject areas. Therefore, the technical design of the proposed subprojects must incorporate the historical and aesthetic considerations meeting the local context and best international practices in project design; and the proponent must review and validate all the design and repair works considering the possible impacts before the start of civil works.
- Seismic Hazard Consideration: The proposed structures should be designed to withstand high intensity earthquakes. Contractor should adopt Seismic Building Code of Pakistan 2007 (SBC-07) to mitigate the seismic hazard for subprojects design. This code specifies minimum requirements for seismic safety of buildings and has to be applied and used by engineers in conjunction with the necessary understanding of the concepts of structural, geotechnical and earthquake engineering.

#### **1) Electrical Hazard Consideration**

- Appropriately grounded and double insulation of every single piece of equipment, machine and device should be kept in the design.
- Proper installation checks and periodic maintenance by a competent electrician should be planned; and
- All power strips should be planned in the design to place in well-ventilated areas for adequate heat dispersion

#### **2) Ecological Consideration:**

During design, sites should be properly selected to avoid and minimize the cutting of trees, shrubs and herbs;

- The critical areas of animal breeding and nests should be avoided (if any);
- Tree plantation must be formulated; and
- It should be properly planned in the design to avoid any impacts on green cover of the subproject sites which may be direct or indirect.



### **Construction Phase Cordon Off**

- Cordon off work areas of civil works where necessary. Visitors should not be allowed in the subproject site area during civil works.

### **Civil Works:**

- Inventory of PCR close to the subproject area of influence, to be at risk of damage or disturbance should be prepared.
- Avoid, redirect the activities so that they do not endanger any archaeological site;
- Avoid extensive demolition works near or within the PCRs;
- Ensures that the relevant signs for protection of known PCRs are displayed where and when required; and
- Experienced skilful agent will be responsible for conducting the demolition activities, if any.
- Issues of Soil Erosion and Contamination, vibration, noise, air quality, wastewater and solid waste should be handled as per given in ESMP report prepared for the sites.
- For excavation works Chance find procedure as given below will be adopted for the site.
- All excavation is to be carried out with great care in order that any old masonry or other remains buried in the earth may not be damaged., any such remain should be left untouched when found and if liable to weather decay, it should be covered;
- It is important that responsible person from DGA, as mentioned by DG DGA in his NOC (refer Annexure A) must be present whenever excavations are carried out in or around the PCR, in case of discovery of any immovable antiquity during execution of work, he shall take charge and register it to further inform higher ups. Secure the site to prevent any damage or loss to movable objects. In cases of movable antiquities or sensitive remains, a night guard shall be present until the responsible authorities take over.

### **Chance Find Procedures**

Project may involve deep excavations. Therefore, the possibility of chance find is not ignorable. In case of any chance find, the contractor will immediately report through Supervision Consultant to DG Directorate General of Archaeology, Punjab, to take further suitable action to preserve those antique or sensitive remains. Representative of the Director will visit the site and observe the significance of the antique, artefact and Cultural (religious) properties and significance of the project. The report will be prepared by representative and will be given to the Director. The documentation will be completed and if required suitable action will be taken to preserve those antiques and sensitive remains.

In case any artefact, antiques and sensitive remains are discovered, chance find procedures should be adopted by contractor workers as follows:

- Stop the construction activities in the areas of chance find.
- After stopping work, the contractor must immediately report the discovery to the Supervision Consultant.
- The Director decides to take over the antiquity for purposes of custody, preservation and protection, the person discovering or finding it shall hand it over to the Director or a person authorized by him in writing.
- Delineate the discovered site or area.
- Consult with the local community and provincial Archaeological Department.
- The Director shall, constitute a team of archaeologists for undertaking preliminary investigation and will decide about further course of action in light of findings of the team.
- The suggestion of the local communities and the concerned authorities will be suitably incorporated during taking the preventive measures to conserve the



- antique, artefact and cultural (religious) properties; and
- Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remain, a night guard shall be arranged until the responsible local authorities take over.
- Avoid the use of heavy construction machinery during the excavation process; and
- The Contractor staff must have relevant qualification and experience of similar projects.

**Plaster and Painting Works:** New Plaster, painting walls and other roof treatment should consider the original colour scheme, layout and design to keep the aesthetic and visual impact of the site.

**Operational Phase:** The authority responsible for the O & M of sub project activities will be responsible for housekeeping of the facilities and shall prepare and adopt SOPs for O & M of the subproject facilities. PTEG E&S experts/specialists will ensure that O&M plan is operationalized and will do monitoring visits for compliance of O & M plans.

**Training and Capacity Building:** The civil work activities shall be carried out by Pre-qualified trained Contractor under supervision of technical staff of DG AD. The Contractors shall contain team of skilled labours having past experience in similar works. Trainings of the work force should be conducted before start of civil works and during project implementation by the PMU safeguards specialists and Contractor's as per training plan given in ESS report.

**Monitoring and Supervision:** Strict Monitoring and supervision as per monitoring plan given in ESS report should be enforced during works.

**GRM:** The record of any complaints as per GRM mechanism of the project should be implemented.

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<sup>i</sup> <https://pk.top10place.com/tomb-of-lala-rukhs-1899027188.htm>





### Annexure-D: Septic Tank Design

