

MVTP Technical Report

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Project Background

Overview

The Government of Balochistan (GoB) plans to transform a 35,000 sq ft facility in Mariabad, Quetta into the Mountain View Science and Tech Park (MVTP), a dedicated Science and Technology Park (STP).

This purpose-built center is envisioned as a catalyst for advancing the technology sphere in the region, providing a dedicated space for innovation, research and development (R&D), and entrepreneurship. The Mountain View Tech Park will serve as a dynamic hub, bringing together academia, research institutions, startups, and established companies under one roof.

This project is poised to play a pivotal role in shaping the future of technology in Balochistan, driving economic growth and positioning the region as a key player in the national and global technology landscape.

Project Brief

Mountain View Science and Tech Park is a mix-use Science and Tech Park located in Mariabad town, Quetta.

Total project area is ~35,000 sq ft. (0.8 acres) to be comprised of commercial and corporate components.

The project was initially constructed at a cost of PKR 280 million and includes 64 rooms with average size of 300 sq. ft. (with possibility to augment to 80 rooms). There are 2 floors (ground and first floor).

The proposed Park shall consist of corporate / executive offices, coworking spaces, startup incubators, computer and testing lab, R&D center, amenity facilities, and other supportive structures.

Shared facilities shall potentially consist of coworking office spaces, seminar and conference rooms and storage area.



Technical Considerations

Scope of Work

The scope of work for the Mountain View Tech Park includes the following key components:

1. Planning and Partnership Development: Secure a PPP agreement and private sector partner. Engage with local community leaders to address concerns and ensure buy-in.
2. Project Management: Develop a project plan, establish a team, and ensure compliance with regulations.
3. Infrastructure Development: Renovate and adapt the existing facility. Establish essential services, including electricity and high-speed internet. Set up core infrastructure for the Science and Tech Park. Design and oversee construction of dedicated spaces for computer and testing lab, research area, co-working areas, and offices. Implement IT infrastructure, security systems, and event facilities. Ensure adherence to sustainability standards.
4. Tenant Recruitment and Initial Operations: Launch marketing campaigns to attract established tech companies and startups. Engage with local universities for talent sourcing and research collaboration. Begin operations of the IT outsourcing center.
5. Technology & Innovation Programs: Develop programs to foster innovation, including incubation and acceleration for startups. Facilitate technology transfer between academia and industry. Establish a framework for skills development within the tech community.
6. Tenant Acquisition & Management: Develop a strategy to attract startups, research institutions, and established tech companies. Define their leasing terms and provide tenant support services like mentorship and networking.
7. Collaborations & Partnerships: Forge partnerships with local and international research institutions, industry leaders, and government agencies. Develop collaboration programs and knowledge-sharing platforms. Participate in regional and global science and tech networks.
8. Marketing & Branding: Create a strong brand identity for the STP. Develop a marketing strategy to attract stakeholders, investors, and potential tenants. Organize promotional events and participate in industry conferences.
9. Operations & Facility Management: Establish protocols for day-to-day management, implement maintenance practices, and oversee administrative functions like security, cleaning, and utilities.
10. Community Engagement: Develop programs to foster a collaborative science and tech culture. Organize events, meetups, and workshops to facilitate networking and knowledge exchange. Establish mechanisms for gathering feedback for continuous improvement.

Transaction Structuring

Transaction is proposed to be executed on PPP basis using a concession regime for a period of 15 years on Renovate, Operate and Transfer (ROT) basis, in which the investor shall be selected through competitive bidding process in accordance with the Balochistan Public Private Partnership (PPP) rules and regulations.

The possibility for the implementation to be undertaken through a hybrid of public and private participation i.e. is on public private partnership (PPP), ROT modality whereby while retaining the ownership of its land and building and ensuring commitment to the overall objectives of supporting the

development of IT Park, GoB can provide the right of use to the private partner to develop the facility and operate the same for such period necessary to recover his investment plus reasonable return and then transfer the project back to GoB.

This seems to be most likely arrangement for the transaction to be undertaken, but the financial result indicate that this project does not have very high potential and seems unlikely to attract a great number of investor (as indicated in the following sections of the report).

The PPP modality for the Mountain View Science and Tech Park focuses on leveraging private sector efficiency and investment while maintaining strategic government support. This alignment ensures compliance with regulations, access to essential resources, and fosters a collaborative environment.

PPP Modality

Examining global examples of STPs reveals varied revenue and profit-sharing models depending on the specific goals and structures of each park. Common approaches include:

1. Percentage-Based Revenue Sharing:
 - Hong Kong Science Park (HKSP): The park operates under a model where the private sector manages operations and shares a percentage of the revenue generated from tenant leases and services with the government.
 - Dubai Silicon Oasis (DSO): Similar to HKSP, DSO employs a revenue-sharing model where the private operator shares a fixed percentage of its revenue from the tech park's operations with the government.
2. Fixed Lease Payment with Revenue Sharing:
 - Research Triangle Park (RTP), USA: Here, the private partner pays a fixed annual lease to the government, combined with a percentage of revenue from sub-leasing and other services.
 - Sophia Antipolis, France: This model includes a base lease payment plus additional revenue sharing from profits generated by the park's commercial activities.
3. Profit-Sharing Arrangements:
 - Tsukuba Science City, Japan: The government and private entities share profits based on pre-determined ratios, typically skewed to favor higher returns for the private sector to incentivize efficient operations and innovation.

Recommended modality: Given the project's significant renovation costs of ~PKR 42 million to be borne by the private sector, a revenue sharing model with a 2% share of GoB for the MVTP is recommended to mitigate the private party's risk exposure. Under this model, the Government of Pakistan (GoB) would receive an undiscounted total revenue share of PKR 12.4 million over the 15-year concession period.

Project Positioning

The Mountain View Tech Park (MVTP) aims to be a mixed-use, dynamic hub for research, development, and entrepreneurship, contributing significantly to the local economy and technological advancement in Quetta. It is strategically positioned to leverage public-private partnerships (PPP) to ensure sustainable development and efficient operation. The project focuses on fostering a collaborative environment for established tech companies, startups, and research institutions.

Key positioning strategies include:

1. Leveraging Collaborations: Engaging with local landscape companies, as well as government support organizations such as control centers for various government led projects, to enhance service delivery and create a vibrant business environment. International collaborations is also anticipated to be fostered by the private concessionaire to bring global expertise and innovation to the park.
2. Creating a Hybrid Model: Combining diverse office spaces and facilities and varied income streams to attract a diverse tenant base. This model ensures consistent revenue generation and reduces reliance on any single source of income, fostering long-term financial viability.
3. Addressing Market Demands: Focusing on immediate market demands such as workspace for freelancers, IT outsourcing, which provides job opportunities and drives economic growth in the region. This approach ensures that the MVTP remains relevant and adaptable to future technological advancements.

Operational Model

Floor Plan

The science and tech park consists of two floors (Ground and First floor) each with 2 distinct blocks (Block A and B) designed to accommodate a total of 12 rooms per floor.

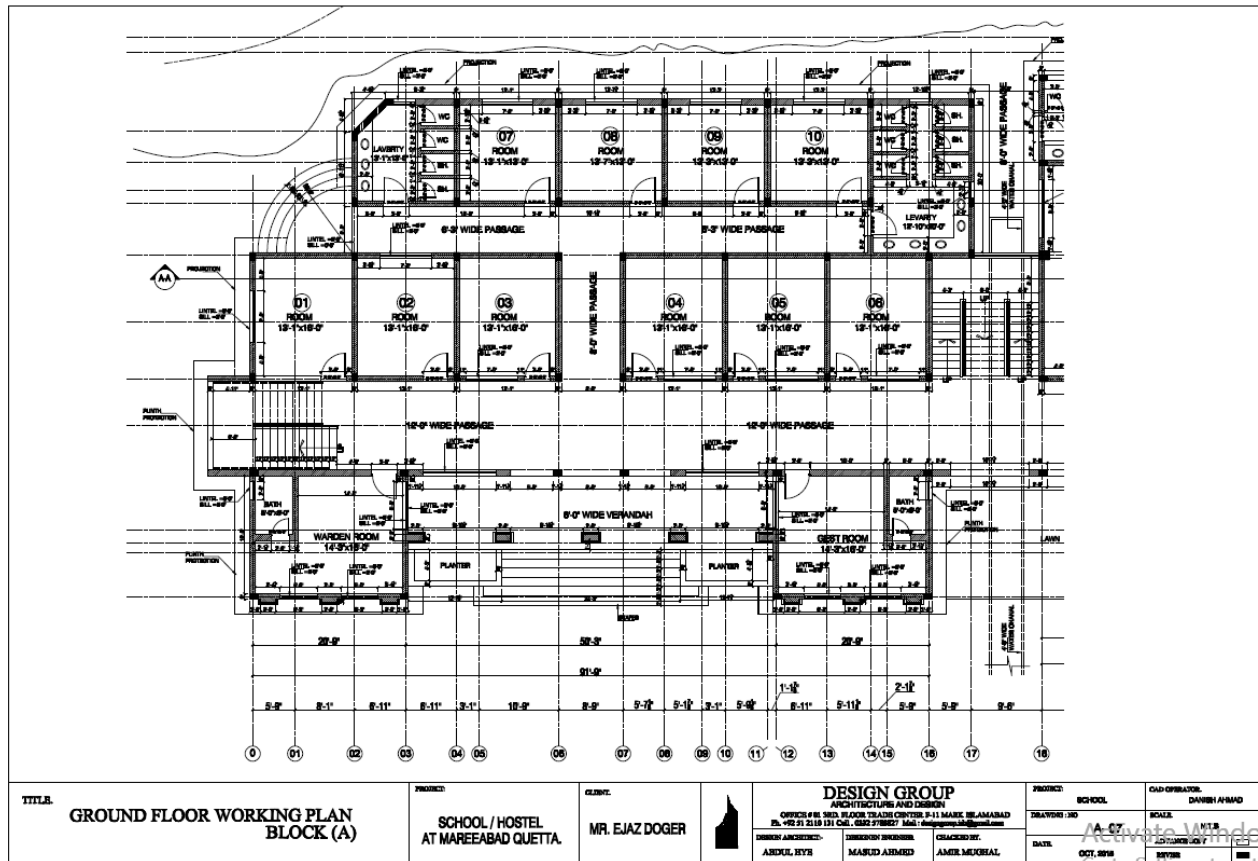


Figure 1: Floor Plan – Block (A) – Ground Floor

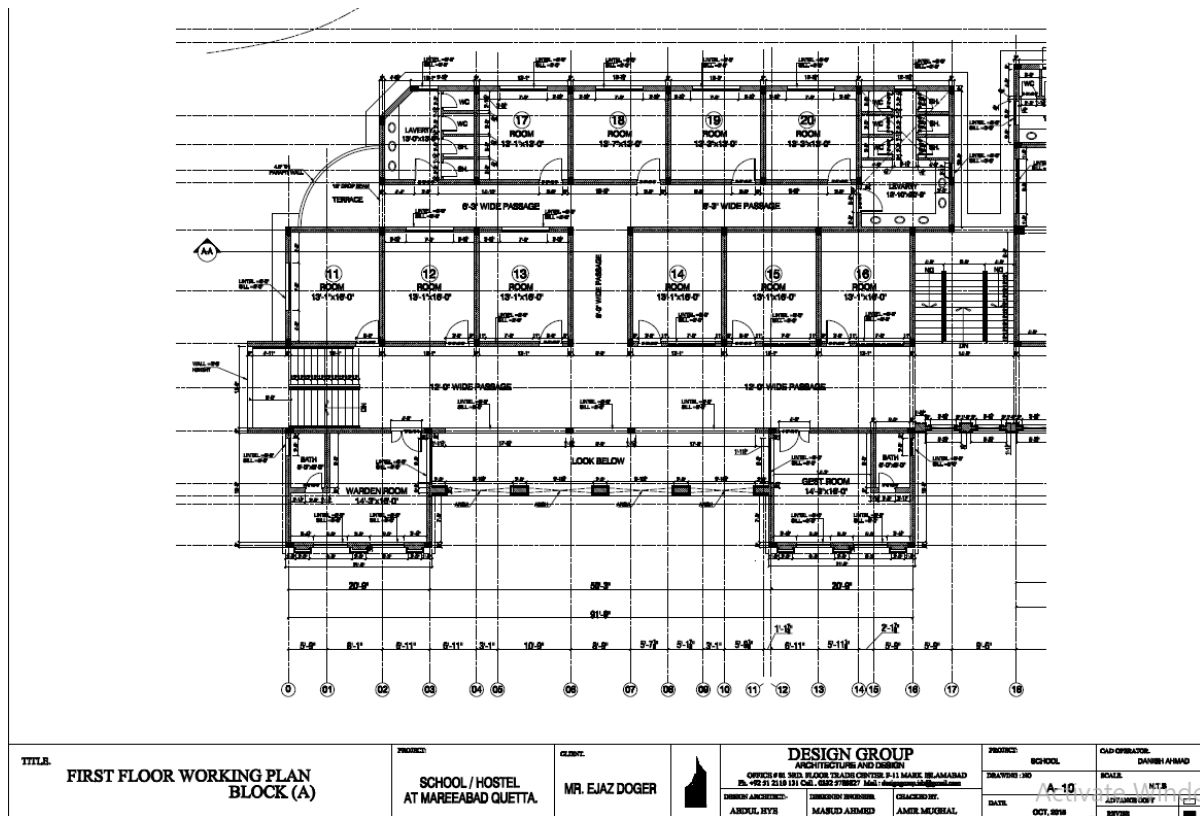


Figure 2: Floor Plan – Block (A) – First Floor

These rooms have been envisioned to cater to various business needs such as executive offices, startup incubators, co-working spaces, meeting rooms, labs, and administrative offices. Each block includes two supplementary rooms: a warden room and a guest room, which have also been repurposed.

Ground Floor

Block A:

The ground floor of Block A comprises 10 standard rooms, a warden room, and a guest room. The rooms are utilized primarily for startup incubators and co-working spaces, fostering innovation and collaboration. The warden room functions as an executive office, likely for the CEO or senior management, while the guest room serves administrative or management office needs.

Block B:

The ground floor Block B mirrors Block A, offering an identical layout and capacity for rooms and facilities. The rooms are utilized primarily for café and restaurant and computer and testing lab. The warden room and Guest room functions as executive offices, likely for CEO or senior management.

First Floor

Block A:

On the Block A of first floor, there are 10 rooms designed for research and development facilities,

alongside co-working spaces. Similar to the ground floor, it includes a warden room and a guest room that serve as corporate offices, enhancing operational efficiency.

Block B:

The Block B of first floor replicates the layout of Block A, providing equivalent rooms and facilities. The rooms are utilized for corporate offices, seminar and conference room. The warden room provides residential area for guards, while guest room functions as storage room.

Limitations

Due to the absence of the original map of Block B, the layout of Block B is an exact mirror image of Block A.

Floor Plan Summary

As per Layout	Proposed	Dimension	Total Covered Area
Ground Floor			
Block A:			
Guest Room	Admin/Control/Staff Office	20'9"x16'	334
Warden Room	CEO/Executive Offices	20'9"x16'	334
Room 7,8,9,10*	Startup Incubators	13'1"x13', 13'7"x13', 13'3"x13', 13'3"x13'	1,258
Room 1,2,3,4,5,6*	Co-working Spaces	13'1"x16' each	694
Block B:			
Guest Room	CEO/Executive Offices	20'9"x16'	334
Warden Room	CEO/Executive Offices	20'9"x16'	334
Room 7,8,9,10*	Café & Restaurant	13'1"x13', 13'7"x13', 13'3"x13', 13'3"x13'	1,258

Room 1,2,3,4,5,6*	Computer Lab	13'1"x16' each	694
First Floor			
Block A:			
Guest Room	Corporate Office Spaces	20'9"x16'	334
Warden Room	Corporate Office Spaces	20'9"x16'	334
Room 11,12,13,14,15,16*	Co-working Spaces	13'1"x16' each	1,258
Room 17,18,19,20*	Research and Development Centre	13'1"x13', 13'7"x13', 13'3"x13', 13'3"x13'	694
Block B:			
Guest Room	Storage Room	20'9"x16'	334
Warden Room	Residential Area for Guards & Office Boys	20'9"x16'	334
Room 11,12,13,14,15,16	Corporate Office Spaces	13'1"x16' each	1,258
Room 17,18*	Seminar Room	13'1"x13', 13'7"x13'	348
Room 19,20*	Conference Room	13'3"x13', 13'3"x13'	346

**Rooms requires dismantling*

Revenue Streams

The revenue streams from MVTP are diversified to encompass various sources, ensuring financial sustainability and support for its operational needs, which includes:

i. STP Rental Spaces

Lease Rental spaces covers significant portion of total revenue. These offerings encompass a diverse range of spaces across 8,091 sq ft, including dedicated areas for CEOs/Executives, collaborative co-working spaces, startup incubators, specialized computer and testing labs, an R&D lab, and corporate office spaces.

ii. Operation and Maintenance Services

Operation and maintenance services covers provision of 24/7 internet connectivity, utilities (electricity, water), security services, and general cleanliness. These services ensure a seamless operational environment, enhancing tenant satisfaction and optimizing the overall functionality of the STP.

iii. STP Services

Revenue is also generated through supplementary science and tech park services such as networking events, meeting spaces, mentorship programs, and other professional services. These offerings foster a collaborative ecosystem, facilitating knowledge exchange and business development among tenants and external partners.

iv. Retail Spaces

Retail space comprises of cafe and restaurant area within the MVTP to be leased out. This offers convenience to tenants and visitors with access to essential amenities and services. This enhances the overall experience within the STP.

v. Conference and Seminar Rooms

The Park generates additional income by renting out its well-equipped conference and seminar rooms. These versatile spaces cater to both internal and external events, including workshops, meetings, and gatherings. Each business tenant receives a complimentary allotment of credit hours for these rooms. Additional hours can be booked for a premium fee by external parties or tenants who have exhausted their allotment.

Project Operating Costs

Operating costs encompass a range of expenses necessary for the day-to-day functioning of MVTP. These costs are essential for maintaining operations and ensuring smooth functionality across various aspects of the organization. Project operating costs include

- Water
- Maintenance
- Marketing costs
- Security cost
- HR costs

Water Cost

Water cost refers to expenses associated with the usage and maintenance of water resources within the MVTP premises. This includes water consumption for facilities such as restrooms, offices etc.

Repair, Maintenance and Cleaning Cost

This cover expenditures related to the general cleaning, upkeep and repair of lab equipment, machinery, and physical facilities. This includes routine maintenance to prevent breakdowns as well as unexpected repairs to address issues as they arise.

Marketing Cost

Marketing costs encompass expenses incurred to promote the MVTP services. This includes advertising campaigns, promotional materials, digital marketing expenditures, market research, and other activities aimed at increasing brand visibility and customer acquisition.

Security Cost

Security costs involve expenses associated with ensuring the safety and security of the MVTP premises, assets, employees, and tenants. This comprises of the cost of hiring security personnel.

HR Cost

HR costs pertain to expenses related to human resources management within the MVTP. This includes salaries, wages, benefits, and other compensation for employees involved in various roles crucial to business operations. Specific positions within HR costs include:

Director/Management: Executive-level role responsible for strategic decision-making and overseeing the overall direction of the company.

Business Development Manager: Personnel focused on providing support to the Director, identifying new business opportunities, partnerships, and strategic alliances to drive growth.

Admin and IT Assistants/Support Staff: Administrative and IT support personnel providing assistance in office management, administrative tasks, and technical support for IT infrastructure and systems.

Investment Report for CAPEX

Summarized CAPEX

Sr. No	Components	Description of Work
1	Component 1	Electric Work
2	Component 2	Plumbing Work
3	Component 3	Science and Tech Park Related Cost

The planned upgrades include improvements needed for the electrical and plumbing systems of the building. These updates are aimed specifically at modernizing the Mountain View Technology Park (MVTP) infrastructure, ensuring it functions optimally as a Science and Technology Park (STP). The electrical work will address the installation of necessary systems and networks throughout the facility to ensure a dependable power supply. The plumbing work will focus on setting up effective water distribution and drainage systems. These updates are intended to refresh outdated systems, making sure they adhere to current standards for efficiency and sustainability. This effort underscores a strategic commitment to enhancing operational reliability and environmental responsibility within our infrastructure framework.

Additionally, the plan includes upgrades to meet the expectations of a science and technology park, such as essential investments in furniture, laboratory equipment, and other critical resources.

Electrical Work

It includes:

- Concealed wiring of light, fan, and call-bell points using PVC insulated cables in heavy gauge PVC conduits.
- Surface-mounted conduits and cables for internal wiring and distribution.
- Supply and installation of light fixtures, ceiling fans, and exhaust fans from reputable brands.
- Provision of switches, power accessories, and auto circuit breakers.
- Comprehensive earthing setup with copper plates, conductors, and chemical treatment.
- Installation of fan hook boxes, MS sheet boxes, sub-distribution boards, and main distribution boards.

This infrastructure will ensure efficient power distribution and safety compliance throughout the Tech Park, supporting its operational needs and facilitating a conducive environment for tech businesses.

Breakup of Electric Work

Sr .No	Description
1	Wiring of light/fan/call-bell point in 3/0.029 PVC insulated bare cable in 3/4" dia or bigger as required heavy guage PVC conduit conceled in walls, columns, ceilling, floor etc.

2	Wiring from first light point to other light point or fan point with 3 no's 1.5mm sq single core PVC Insulated.
3	Supply & Installation of heavy guage PVC conduit on surface of wall, columns, ceiling etc. including all fitting & accessories and following sizes.
A	a) PVC conduit 20 mm (3/4") dia
B	b) PVC conduit 25 mm (1") dia
4	Supply & drawing in prelaid conduit, PVC/GI Pipe, RCC pipe, Trenches, Single core PVC insulated 300/500V grade copper conductor cables of Pakistan or pioneer cables of following sizes
A	Single core cable 2.5 mm ²
B	Single core 4 mm ² 300/500V cable
C	Single core 6 mm ² 300/500V cable
D	Single core 16 mm ² 300/500V cable
5	Supply and fixing of the following light with all accessories.
A	Ceiling Lights
B	Pandent
D	Wall Shade Light
E	Niche Light
6	Supply and fixing of the following types best quality ceiling fan complete with GI rod,.
A	a) 56" fan
B	Supply and Fixing dimmer switch complete.
7	Supply and installation of 24" sweep, plastic body, Exhaust fan including all civil works required for complete installation and of asia/climax/pak fan made including all labour and materials cable required at site and as approved by the M(Elect).
8	Supply and Installation of Switches.
A	5 Amp Single Pole Flush Type Switch
B	5 Amp 2way Flush Type Switch
9	Supply and fixing of following Power accessories.
A	10a, 1 Gang 2 Pin
B	15a, 1 Gang 3 Pin
C	Wall Light
D	UPS System with all accessories.
E	Telephone and Intercom
F	TV plug point
10	Supply and fixing of the following single phase imported auto circuit breakers as approved.
A	10 Amp
B	15 Amp
C	20 Amp

11	Providing and Fixing of earthing electrode 2"x2'x1/4" copper plate buried at the depth of 15feet in ground with two Nos. Earthing leads of stranded copper conductor 2x8SWG (with salt and charcoal, or earthing chemical powder) i/c fixing of 8SWG copper wire in 1/2" GI conduit from earth pit to DBs complete in all respect as required, and approved by the Engineer incharge.
12	Providing and fixing plastic PVC heavy gauge fan hook box suitable for RCC roof with MS bar 5/8" dia & complete in all respect as approved by the Engineer incharge.
	Supply and fixing of Wall AC 1.5 Ton
13	Supply and fixing of MS Sheet box of 16 SWG, 4' : (4"x4")
14	Supply and Fixing of Sub Distribution Board for both floors (24"x30")
15	Supply and Fixing of Main Distribution Boards (24"x30")

Plumbing Work

The plumbing work process encompasses a series of systematic steps to ensure efficient installation and functionality of essential facilities, which includes:

- **Installation of Toilet, Bath, and Laundry Accessories:** installation of toilets, baths, sinks, and laundry accessories. This involves precise measurements and alignment to ensure proper functionality
- **GI Gate Valves with All Allied Accessories:** Gate valves made of galvanized iron (GI) are installed along with associated accessories. These valves regulate the flow of water within the plumbing system, ensuring control and maintenance ease.
- **Plumbing Fixtures and Fittings:** Fixtures such as faucets, showerheads, geyser, water supply pumping and drainage fittings are carefully installed to complete the plumbing setup. Each fixture is selected for durability and efficiency, complementing the overall design and functionality requirements.

Breakup of Plumbing Work

Sr. No	Description
A	Toilet, Bath and Laundry Accessories
	Towel Rail
	Soap Dish
	Mirror
B	GI Gate Valves with All Allied Accessories
	1/2" Dia

	3/4" Dia
	1" Dia
C	Plumbing Fixtures and Fittings
	Asian WC
	Muslim Shower
	Bath Mixer
	Bib cock 12 mm Dia
	uPVC floor Gully top
	4"Floor P Trap
	Manhole Cover with 24" x 24"
	Geyser (Good Brand) - 45 Gallons
	Water Supply Pump

Science and Tech Park Related Cost

This encompass expenses related to acquiring and installing various items necessary for outfitting Mountain View Tech Park. This includes furniture such as tables, conference tables, chairs, bookshelves/bookcases, sofas, standing desks, and wooden podiums. Additionally, it covers decorative items such as artwork, artificial or natural plants, and wall-mounted racks or cabinets.

Technical equipment like printers, scanners, photocopiers, presentation tools (projector/screen), cameras, microphones, speakers, and whiteboards are also included. Infrastructure essentials like fast and secure internet connectivity, kitchenettes with sinks, fridges, microwaves, crockery items, commercial refrigerators, workbenches, servers, computers, and laptops are part of these costs.

Furthermore, the expenditure involves services such as dismantling existing fixtures, installing independent cabinets, and performing a paint job.

MVTP also invests in sustainable energy solutions, including a complete solar power system comprising solar panels and battery storage.

To safeguard against power disruptions, MVTP incorporates backup generators and UPS.

Breakup of Furniture Fixture & Renovation

Sr. No	Description
1	CEO/Executive Offices
	<u>Warden Room (on Ground Floor) - Block -A [20'9"x16']</u>
	<u>Warden Room (on Ground Floor) - Block -B [20'9"x16']</u>
	<u>Guest Room (on Ground Floor) - Block -B [20'9"x16']</u>
	Executive Table
	Executive Chair

	Filing Cabinets
	Bookshelves/Bookcases
	Decorative items
	Artificial/Natural Plants
	Artwork
2	Admin/Control/Staff Office
	<u>Guest Room (on Ground Floor) - Block -A [20'9"x16']</u>
	Manager Table (5'x2'6")
	Manager Chair
	Staff Tables (3'x2')
	Staff Chairs
	Filing Cabinets
	Bookshelves/Bookcases
	Decorative items
	Artificial/Natural Plants
	Artwork
3	Reception
	-
	<u>Open In the lobby (Entrance Place Adjustment to Stairs)</u>
	Reception Table
	Reception Stool (Bar Stool or Heighted Chair)
	Printer
	Photo Copier
	Printer/Scanner
	Artificial/Natural Plants
	Artwork
4	Coworking Spaces
	Spaces for freelancers, remote workers & small teams.
	<u>Room No.1, 2, 3, 4, 5, 6 (G-Floor)-Block-A [13'1"x16'] x4</u>
	<u>Room No.11, 12, 13, 14, 15, 16 (F-Floor)Block-A[13'1"x16'] x4</u>
	Shared Tables (8'-0"x4'-0")
	Chairs
	Artificial/Natural Plants
	Artwork
	Dismantling

5	Corporate Office Spaces
	Spaces for Independent Companies
	<u>Warden Room (on First Floor) - Block -A [20'9"x16']</u>
	<u>Guest Room (on First Floor) - Block -A [20'9"x16']</u>
	Staff Table (3'x2')
	Chairs
	Independent Cabinets
	Artificial/Natural Plants
	Artwork
	<u>Room No.11, 12, 13, 14, 15, 16 (F-Floor) - Block -B [13'1"x16']</u>
	Staff Table (3'x2')
	Chairs
	Independent Cabinets
	Artificial/Natural Plants
	Artwork
6	Conference Room
	Space for business meetings and small conferences
	<u>Room No.19, 20 (First Floor) - Block-B [13'3"x13']</u>
	-
	Conference table (rectangular shape) - 20'-0" long
	Chairs
	Presentation tools (projectors, screens)
	Camera for video conferencing
	Mics & Speaker Setup
	White Board
	Dismantling Cost
7	Seminar Room
	Space for Seminars or medium size event
	<u>Room No.17, 18 (First Floor) - Block-B</u>
	<u>[13'1"x13] and [13'7"x13]</u>
	Wooden Podium Dse
	Chairs
	Presentation tools (projectors, screens)
	Camera for video conferencing

	Mic & Speaker Setup
	White Board
	Dismantling Cost
8	Storage Room
	Space for maintenance tools, extra equipment & storage purposes
	<u>Guest Room (First Floor) - Block-B [20'9"x16']</u>
	Wall Mounted Racks & Cabinets
9	Residential Area for Guards & Office Boys
	Accommodation Spaces
	<u>Warden Room (First Floor) - Block-B [20'9"x16']</u>
	Metal Beds
	Table + Chairs
	Cabinets
10	Startup Incubators
	Working space, facilities and services to support new tech startups.
	<u>Room No.7,8, 9, 10 (on Ground Floor) - Block –A</u>
	-
	Open desks and workstations
	Comfortable and colorful chairs
	Whiteboards and glassboards for brainstorming
	Meeting tables and conference rooms
	Cozy lounge areas and sofas
	Standing desks and ergonomic furniture
	Lockable storage and shelving units
	Fast and secure internet connectivity-per year
	Printing and scanning stations
	Kitchenettes sink
	Dismantling Cost
11	AMENITIES
	<u>Cafeteria / Restaurant</u>
	Dining option
	<u>Area of Room No.7, 8 , 9 , 10 (Ground Floor)-Block-B</u>

	<u>[13'1"x13], [13'7"x13'] and [13'3x13]x2</u>
	Tables (3'-6"x3'-6")
	Chairs
	Stools
	Wall Mounted Bar Rack/Table
	Fridge
	Water Dispenser
	Microwave/Oven
	Crockery items
	Decore/Art Work/Planters
	Commercial Refrigerator
	Kitchen Setup (Sink/Cabinets etc.)
	Dismantling
12	RESEARCH AND DEVELOPMENT CENTRE
I	<u>Innovation Labs</u>
	Spaces dedicated to research and innovation, often in collaboration with universities or other research institutions.
	<u>Room No.17, 18, 19, 20 (on First Floor) - Block-A</u>
	-
	Workbenches
	R & L Cabinets
	Global Lab chairs
	Chemical cabinets
	Anechoic chamber
	Dismantling
ii	<u>Computer Lab / Testing Facilities</u>
	Areas equipped with tools and technology for product development and testing.
	<u>Room No.1, 2, 3, 4, 5, 6 (on Ground Floor) - Block-B</u>
	-
	Table (3'x2')
	Chairs
	Hardware testing equipments like server etc
	Computer systems with led screen
	Laptops
	Software testing tools like scanner etc
	Automated testing software
	Debugging tools
	Performance testing software like Meter, Gatling

	Security testing tools
	<u>Networking testing tools</u>
	Network simulators and emulators
	Traffic generators and analyzers
	Network protocol analyzers
	Firewall and security testing tools
	Cybersecurity testing equipment like Metasploit-per year
	Password cracking tools like Ripper etc
	Dismantling
13	OTHER
	Renovation costs (including curtains and blinds)
	UPS complete system (5 kVA)
	Complete Solar System (120 kVA)
	Generator (165 kVA)
	Paint Job - Including Material (Complete Building Inside)

Other Related Costs

These cost encompasses expenses relating to the deployment of high-speed internet facilitated by fiber optic cables. WiFi access points are strategically positioned across the premises to ensure seamless coverage, accommodating mobile devices and supporting connectivity needs across all areas.

The park shall prioritize security with a comprehensive CCTV system, incorporating essential components such as Network Video Recorders (NVRs), monitors for real-time surveillance monitoring, and Power over Ethernet (PoE) switches to power and connect CCTV cameras. Advanced video processing software enhances the surveillance capabilities, enabling features like motion detection and remote monitoring.

In terms of networking infrastructure, MVTP utilizes Cat 6 cables for reliable data transmission between devices and network equipment, ensuring robust connectivity throughout the tech park. Storage devices such as Storage Area Networks (SAN) and Network Attached Storage (NAS) systems are implemented to manage the substantial data generated by surveillance systems and other operational needs, maintaining data availability and integrity.

Breakup of Other Related Costs

Sr. No	Description
1	NETWORKING INFRASTRUCTURE
	High Speed Internet
	Fiber Optic Cables (2 Core)
	Cat 6

	Wi-Fi access points-3702i dual band-5Ghz
	Network Switches - D-LinkDGS-108, 8-port
2	SECURITY & SURVEILLANCE
	CCTV Cameras (HD)
	NVR
	Monitors: Display live and recorded video.
	16 Port POE switch
	Switches: Route video signals to multiple monitors.
	Video Processing Software:
	Cat 6
	<u>Storage Devices:</u>
	SAN - (1.2 TB)
	NAS (10 TB)

VALUE FOR MONEY

Introduction

This section assesses the proposed Mountain View Science and Technology Park (MVTP) project in Mariabad, Quetta, under a Public-Private Partnership (PPP) model. The project aims to transform an existing facility into a regional hub for technology and innovation, leveraging private sector investment and operational expertise.

Key Consideration Factors

Following may be considered for the evaluation of the VFM for the project:

- i. **Initial Investment and Risk-sharing Mechanisms:** The MVTP project involves substantial initial investments for infrastructure upgrades and technology acquisitions by the private sector partner. The PPP agreement is aimed at ensuring equitable risk-sharing between the private partner and the Government of Balochistan (GoB).
The Government of Balochistan (GoB) will collaborate to mitigate risks by offering the following incentives:
 - Potential Tax Incentives: Reduced tax liabilities can significantly improve the project's financial viability for the private partner.
 - Special Technology Zone (STZ) Status: Designation as an STZ translates to advantages like tax exemptions, further enhancing the project's attractiveness. Furthermore, the potential impact of STZ status has also been incorporated into the financial model, recognizing its materiality (critical importance) for the project's success.
 - Pre-approved Tenant Pool: The GoB will encourage government-to-government (G2G) firms, such as control centers for various government projects, to become tenants at MVTP. This provides a stable tenant base and revenue stream for the private partner.
 - Preference in Public Sector Development Programs (PSDP): Companies headquartered at MVTP may be given priority consideration for contracts related to PSDP projects, fostering tenant growth and collaboration.
- ii. **Private Sector Investment:** Under the PPP model, the private sector bears responsibility for financing the refurbishment and operational expenses of MVTP, relieving the GoB from ongoing financial commitments. This arrangement fosters efficiency and sustainability through market-driven solutions.
- iii. **Operational Efficiency and Performance:** The involvement of a private partner brings operational efficiency through specialized management practices and technology-driven solutions.
- iv. **Risk Management:** Risks associated with construction, operations, and financial performance are allocated to the private partner, aligning responsibilities with capabilities. This mitigates risks for the GoB and ensures uninterrupted service delivery and project sustainability.

- v. **Innovation and Technology:** Private sector involvement facilitates technology upgrades and innovations within MVTP, enhancing its competitiveness and attractiveness to technology companies, startups, and educational institutions.
- vi. **Socio-economic Impact:** The MVTP project is expected to generate employment opportunities, stimulate economic growth, and improve living standards in the region. It serves as a catalyst for local development by attracting investments and fostering collaboration among stakeholders.

Further Assessment against VFM Criteria

- i. **Specialized Expertise and Experience:**

Private sector partners bring extensive experience in managing technology parks and similar projects, ensuring efficient project execution and maximizing economic benefits for the region.
- ii. **Efficiency in Resource Allocation:**

Private sector efficiency results in cost-effective solutions and streamlined processes, optimizing resource allocation and minimizing operational costs over the project's lifecycle.
- iii. **Access to Capital and Financing:**

Private sector investment provides access to additional capital and financing options, accelerating project implementation and reducing financial risks for the GoB.
- iv. **Flexibility and Adaptability:**

Private sector entities are adept at adapting to market dynamics and changing conditions, ensuring the project's long-term viability and sustainability.
- v. **Performance-Based Incentives:**

Performance-based incentives in the PPP model incentivize the private partner to achieve operational excellence, innovate, and continuously improve service delivery and facility management.
- vi. **Risk Mitigation and Transfer:**

Private sector participation transfers significant operational and financial risks to the private partner, enhancing project resilience and stability.
- vii. **Accountability and Performance Monitoring:**

Robust accountability mechanisms and performance monitoring frameworks ensure transparency and adherence to agreed-upon standards, enhancing project outcomes and delivering value for money.