



## Local Government & Community Development Department

### Punjab Cities Program Construction of SWM Parking Area in Kamalia City

# PC-I

**Estimated Cost Million PKR. 42.543**

October 2022

**Municipal Committee Kamalia**



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## Punjab Cities Program

### PC-I Form for Construction of SWM Parking Shed in Kamalia City

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**PC-I FORM**  
**for**  
**Construction of Parking Area in Kamalia City**

*Project Serial Number*

*Sector :* **Local Government & Community Development Department**  
*Sub Sector:* **Social**

<b>1. Name of the project</b>	<b>Punjab Cities Program Construction of Parking Area in Kamalia city</b>	
<b>2.Location</b>	Kamalia city is the administrative center of Kamalia Tehsil in the Toba Tek Singh District of Punjab, Pakistan. The city is bounded in the South by River Ravi and Chichawatni, in the West by Pir Mahal, in the North by Rajana and Mamu Kanjan, and in the East by Harappa and Sahiwal. The coordinates for Kamalia city are 30.73' North latitude and 72.65' East longitude. Location map of the city is attached in <b>Annexure-A</b>	
<b>3. Authorities responsible for</b>		
i- Sponsoring	Government of the Punjab (through World Bank funding)	
ii- Execution	Municipal Committee Kamalia	
iii- Operation and Maintenance	Municipal Committee Kamalia	
iv- Concerned Provincial Department	Local Government and Community Development Department Punjab	
<b>4a. Plan Provision</b>		
i. If the project is included in medium term/five year plan, specify actual allocation	Punjab Cities Program (PCP) is a World Bank funded Program with a total cost of USD 236.00 million and comprises of below mentioned components.	
	Total loan from World Bank	USD 200.00 million
	Component-1 Infrastructure development (PforR)	USD 180.00 million
	Component-2 Technical Assistance	USD 20.00 million
	MCs share (20% of PforR component) equivalent to:	USD 36.00 million
	Total Program cost	USD 236.00 million

	Component-2 i-e Technical Assistance component of Program costing USD 20.00 million is meant for management cost of the Program and capacity building of MCs & Government Departments and is included in the medium term/ five-year plan and has been funded now with allocation of PKR 1329.90 million as foreign component.
ii- If not included in the current plan, what warrants its inclusion and how it is now proposed to be accommodated	Not applicable
iii If the project is proposed to be financed out of block provision indicate.	The Project is being financed by World Bank as Donor along with 20% co-financing from the Program Units and is not proposed to be financed out of block allocation.
4b- Provision in the current year PSDP	PKR. 1329.90.00 million
5. Project objectives and its relationship with sector objectives	<p><b><u>Sector Objectives</u></b> The sector objectives include:</p> <ol style="list-style-type: none"> <li>1. Provision of efficient and effective municipality services to the masses.</li> <li>2. Community development through improving basic infrastructure.</li> <li>3. Clean and green environment for better living standards.</li> <li>4. Effective use of land through master planning of urban areas.</li> <li>5. Social uplifting and cohesion through provision of public open spaces and play grounds.</li> <li>6. Ease in mobility and communication.</li> <li>7. Cost efficient Solid Waste Management through waste to energy initiatives.</li> <li>8. Capacity building of Local Governments.</li> <li>9. Efficient Road network to make areas easily accessible</li> </ol> <p><b><u>Objectives of the Project</u></b> The Punjab Cities Program aims at improvement of infrastructure of municipal services such as roads, cross roads, street lights, parks and parking shed for SWM machinery for improved communication and recreational facilities.</p> <p>Scope of the work for this particular project includes the construction of Parking shed for SWM Machinery.</p>

	<p>The Project has the following objectives;</p> <ol style="list-style-type: none"> <li>1. Provision of suitable parking area for the MC Vehicles.</li> <li>2. Making MC self-sufficient in small repairs to the machinery &amp; Equipment possessed by MC</li> <li>3. Provision of a washing facilities for the vehicles</li> <li>4. Effective protection to the vehicles against the solar radiation and Ultraviolet rays, rain, hail, wind, and dust.</li> <li>5. Slowing down the deterioration of vehicles, therefore reducing the cost of maintenance.</li> <li>6. Enhancement of the security of vehicles during non-working hours.</li> <li>7. Better watch and ward of MC machinery and equipment and reduction of losses due to theft of equipment and spares.</li> <li>8. Provision of better solid waste management service by protection of the machinery and equipment.</li> </ol> <p>Hence, the objectives of the project are in line with the sector objectives at serial No-1, 2, 3 &amp; 7 and the project forms integral part of the concerned sector.</p>
<p><b>6. Description, justification, technical parameters and technology transfer aspects</b></p>	
<p>i. Present Condition</p>	<p>As per PLGA-12019 Urban Local Governments (ULGs) are basically and wholly responsible for delivery of the municipal services with a service delivery level which should satisfy the consumers and citizen. Unfortunately, the prevalent conditions of the service delivery are not encouraging in the city.</p> <p>The major reason of unsatisfactory service delivery is the lack of proper maintenance of the municipal infrastructure in all sectors causing consumer dissatisfaction at one end and degradation of the infrastructure on the other end apart from very low revenue recovery as the consumers are reluctant to pay because of deteriorated service delivery.</p> <p>MC Kamalia has some machinery and equipment which is already being used for collection and disposal of the solid waste. Under Punjab Cities Program modern, efficient and cost-effective machinery and equipment has been provided to MC Kamalia for provision of better solid waste management facilities to the people of Kamalia.</p> <p>At present, there is no appropriate parking space available with MC for the existing and newly procured machinery and equipment and dire need for parking area facility is being felt. Currently the solid waste machinery is being parked under open sky in various spaces available with MC. Absence of permanent parking space can cause machinery</p>

	deterioration and compromise its safety that will lead to non-sustainability of solid waste management.																				
ii. Description of the subproject-	The project comprises of construction of Parking Area for solid waste management and other machinery and equipment possessed by MC over an area of <b>5.60 Kanals</b> in the city. Detail of the components of Parking Area have been given in the table below.																				
iii Detail of civil works, equipment & machinery and other physical facilities	<p>The detail of Parking Shed for SWM Machinery to be constructed in the city, is given below:</p> <p>Location: Zeeshan Colony Road near Canal, Kamalia</p> <table border="1"> <thead> <tr> <th>S. N.</th> <th>Detail of works</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Entrance gate</td> </tr> <tr> <td>2</td> <td>Sheds for vehicles with trusses and Aluzinc sheeting at the top</td> </tr> <tr> <td>3</td> <td>Office room with toilet</td> </tr> <tr> <td>4</td> <td>Workshop with tool room and toilet</td> </tr> <tr> <td>5</td> <td>Washing ramp</td> </tr> <tr> <td>6</td> <td>Store Room</td> </tr> <tr> <td>7</td> <td>Parking aprons</td> </tr> <tr> <td>8</td> <td>Guard room</td> </tr> <tr> <td>9</td> <td>Water supply and drainage system</td> </tr> </tbody> </table>	S. N.	Detail of works	1	Entrance gate	2	Sheds for vehicles with trusses and Aluzinc sheeting at the top	3	Office room with toilet	4	Workshop with tool room and toilet	5	Washing ramp	6	Store Room	7	Parking aprons	8	Guard room	9	Water supply and drainage system
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iv Indicate governers issues of the sector relevant to the project and strategy to resolve them	<ul style="list-style-type: none"> <li>MC Kamalia is facing acute shortage of staff. The smooth sailing of the Punjab Cities Program can only be assured when the required staff is available with Unit.</li> <li>The Repair and maintenance of the municipal services is not up to the mark in such Unit. Trainings will be imparted by PMDFC to the officers as well as the field staff under the Program but practicing the interventions and method/procedures learnt in these trainings is the actual requirement in which MCs are lacking at present. Hence inculcating the mind set for good repair and maintenance is the major requirement for improving the service delivery level.</li> </ul>																				

<p><b>7- Capital Cost of Project</b></p>	<p>The summary of the works included in the project is given below;</p> <table border="1" data-bbox="560 282 1471 1352"> <thead> <tr> <th data-bbox="560 282 675 412">S. No</th> <th data-bbox="675 282 1286 412">Item of works</th> <th data-bbox="1286 282 1471 412">Cost (PKR million)</th> </tr> </thead> <tbody> <tr> <td data-bbox="560 412 675 461">1</td> <td data-bbox="675 412 1286 461">Office Building</td> <td data-bbox="1286 412 1471 461">1.369</td> </tr> <tr> <td data-bbox="560 461 675 510">2</td> <td data-bbox="675 461 1286 510">Guard Room</td> <td data-bbox="1286 461 1471 510">0.579</td> </tr> <tr> <td data-bbox="560 510 675 560">3</td> <td data-bbox="675 510 1286 560">Store Room</td> <td data-bbox="1286 510 1471 560">1.956</td> </tr> <tr> <td data-bbox="560 560 675 609">4</td> <td data-bbox="675 560 1286 609">Workshop</td> <td data-bbox="1286 560 1471 609">3.130</td> </tr> <tr> <td data-bbox="560 609 675 658">5</td> <td data-bbox="675 609 1286 658">Parking Shed (Size 120' X 32')</td> <td data-bbox="1286 609 1471 658">10.950</td> </tr> <tr> <td data-bbox="560 658 675 707">6</td> <td data-bbox="675 658 1286 707">Parking Shed (Size 90' X 32')</td> <td data-bbox="1286 658 1471 707">8.323</td> </tr> <tr> <td data-bbox="560 707 675 757">7</td> <td data-bbox="675 707 1286 757">Washing Pit</td> <td data-bbox="1286 707 1471 757">0.526</td> </tr> <tr> <td data-bbox="560 757 675 806">9</td> <td data-bbox="675 757 1286 806">Pump Pad</td> <td data-bbox="1286 757 1471 806">0.015</td> </tr> <tr> <td data-bbox="560 806 675 855">10</td> <td data-bbox="675 806 1286 855">Septic Tank</td> <td data-bbox="1286 806 1471 855">0.312</td> </tr> <tr> <td data-bbox="560 855 675 949">11</td> <td data-bbox="675 855 1286 949">External Boundary Wall + Tuff Paver + Lawn</td> <td data-bbox="1286 855 1471 949">8.649</td> </tr> <tr> <td data-bbox="560 949 675 999">12</td> <td data-bbox="675 949 1286 999">External Plumbing Work</td> <td data-bbox="1286 949 1471 999">0.631</td> </tr> <tr> <td data-bbox="560 999 675 1048">13</td> <td data-bbox="675 999 1286 1048">External Electrical Work</td> <td data-bbox="1286 999 1471 1048">3.202</td> </tr> <tr> <td data-bbox="560 1048 675 1097">14</td> <td data-bbox="675 1048 1286 1097">Environmental Health &amp; Safety Cost</td> <td data-bbox="1286 1048 1471 1097">0.112</td> </tr> <tr> <td data-bbox="560 1097 675 1146"></td> <td data-bbox="675 1097 1286 1146" style="text-align: right;"><b>Total cost</b></td> <td data-bbox="1286 1097 1471 1146"><b>39.760</b></td> </tr> <tr> <td data-bbox="560 1146 675 1196"></td> <td data-bbox="675 1146 1286 1196">Contingencies @2%</td> <td data-bbox="1286 1146 1471 1196">0.795</td> </tr> <tr> <td data-bbox="560 1196 675 1245"></td> <td data-bbox="675 1196 1286 1245">Punjab Sales Tax @5%</td> <td data-bbox="1286 1196 1471 1245">1.988</td> </tr> <tr> <td data-bbox="560 1245 675 1294"></td> <td data-bbox="675 1245 1286 1294" style="text-align: right;"><b>Grand Total</b></td> <td data-bbox="1286 1245 1471 1294"><b>42.543</b></td> </tr> <tr> <td colspan="3" data-bbox="560 1294 1471 1352">See <b>Annexure-B</b> for details</td> </tr> </tbody> </table>	S. No	Item of works	Cost (PKR million)	1	Office Building	1.369	2	Guard Room	0.579	3	Store Room	1.956	4	Workshop	3.130	5	Parking Shed (Size 120' X 32')	10.950	6	Parking Shed (Size 90' X 32')	8.323	7	Washing Pit	0.526	9	Pump Pad	0.015	10	Septic Tank	0.312	11	External Boundary Wall + Tuff Paver + Lawn	8.649	12	External Plumbing Work	0.631	13	External Electrical Work	3.202	14	Environmental Health & Safety Cost	0.112		<b>Total cost</b>	<b>39.760</b>		Contingencies @2%	0.795		Punjab Sales Tax @5%	1.988		<b>Grand Total</b>	<b>42.543</b>	See <b>Annexure-B</b> for details		
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<p>i- Indicate date of estimation of the project cost</p>	<p>The project estimates have been framed during the month of October, 2022</p>																																																									
<p>ii- Basis of determining the estimates be provided.</p>	<p>The cost estimates have been framed on the basis of bill of quantities actually required at site and unit rates from the Market Rate System (MRS) issued by the Government of Punjab (District Toba Tek Singh 2<sup>nd</sup> Bi-Annual of year 2022). For items not available in the MRS, the same have been analyzed as per prevailing market rates.</p>																																																									

iii- Provide year wise estimation of physical activities	Physical phasing of the project is included in the following table:			
	<b>S. #</b>	<b>Item of works</b>	<b>Year 2022-2023</b>	
	1	Boundary wall and gate	100%	
	2	Sheds for vehicles with trusses and Aluzinc sheeting at the top	100%	
	3	Office room with toilet	100%	
	4	Workshop with tool room and toilet	100%	
	5	Washing ramp	100%	
	6	Store room	100%	
	7	Parking aprons	100%	
	8	Guard room	100%	
	9	Ejector Pump	100%	
	10	Water supply and drainage system	100%	
	12	Contingencies & PRS Taxes	100%	
iv- Phasing of capital cost on the basis of each item of work.	Phasing of capital cost of the project is included in the following table: (All figures are in million rupees)			
	<b>S. #</b>	<b>Items of Shed</b>	<b>Total cost (Million Rs)</b>	<b>Year 2022-2023 (Million Rs)</b>
	1	Office Building	1.369	1.369
	2	Guard Room	0.579	0.579
	3	Store Room	1.956	1.956
	4	Workshop	3.130	3.130
	5	Parking Shed (Size 120' X 32')	10.950	10.950
	6	Parking Shed (Size 90' X 32')	8.323	8.323
	7	Washing Pit	0.526	0.526
	8	Pump Pad	0.015	0.015
	9	Septic Tank	0.312	0.312
	10	External Boundary Wall + Tuff Paver + Lawn	8.649	8.649
	11	External Plumbing Work	0.631	0.631
	12	External Electrical Work	3.202	3.202
	13	Environmental Health & Safety Cost	0.112	0.112
	PST contingencies	<b>2.783</b>	<b>2.783</b>	
	<b>Total</b>	<b>42.543</b>	<b>42.543</b>	



<b>8-Annual recurrent cost after completion of the project and source of financing</b>	Cost in Million = Rs. 0.697 (see details attached in <b>Annexure-1</b> )																
<b>9- Demand &amp; Supply Analysis</b>  i- Existing Capacity of services	<b>Existing supply level</b> <ul style="list-style-type: none"> <li>• There is no existing parking facility for the SWM machinery. Resultantly the vehicles are parked at open spaces with no protection.</li> <li>• MC Kamalia is unable to protect the solid waste transportation and other MC vehicles because of non-availability of appropriate parking area.</li> </ul>																
ii- Projected Demand for 10 years	<p>The Parking area is required to park and protect the solid waste transportation and other MC vehicles.</p> <ul style="list-style-type: none"> <li>•The influence and value of parking spaces in planning for livable communities is very essential. Parking space is more than a necessary element of larger residential or commercial uses; it merits consideration as a distinct land use that affects travel behavior and the environment. The provision of parking lots reduces the congestion on streets and roads and improves traffic flow. District Kamalia lacks parking space for the SWM Machinery which are therefore parked in open or rental spaces. The proposal is to construct a parking shed for SWM machinery to accommodate a total of 17 vehicles.</li> <li>•The municipal services require radical improvement to enhance the efficiency of the service to increase service delivery to a satisfactory level.</li> <li>•Many shortcomings, problems and bottlenecks have been observed in the present situation which could not be addressed by MC due to funding constraints and now have been proposed to be addressed by the construction of the municipal services infrastructure.</li> </ul>																
iii- Capacity of other similar projects being implemented in public/private sector	No other project of this nature is being implemented in public as well as private sector because of funding constrains in the Unit.																
iv- Supply and Demand gaps	As explained above there is no parking area in Kamalia City for solid waste transportation and other MC vehicles. So there is a large gap between the supply and demand.																
v-Designed capacity and output of the project	1)-Table showing details of the parking area is given below: <table border="1" data-bbox="574 1792 1473 2024"> <thead> <tr> <th rowspan="2">Location</th> <th rowspan="2">Components</th> <th rowspan="2">No. of Sheds</th> <th colspan="2">Area</th> </tr> <tr> <th>Total area</th> <th>Shed area &amp; Nos.</th> </tr> </thead> <tbody> <tr> <td>Zeeshan Colony Road near Canal</td> <td>As listed in section-7</td> <td>02</td> <td>5.60 Kanals</td> <td>1 No= 120'x32' 1 No= 90'x32'</td> </tr> </tbody> </table>					Location	Components	No. of Sheds	Area		Total area	Shed area & Nos.	Zeeshan Colony Road near Canal	As listed in section-7	02	5.60 Kanals	1 No= 120'x32' 1 No= 90'x32'
Location	Components	No. of Sheds	Area														
			Total area	Shed area & Nos.													
Zeeshan Colony Road near Canal	As listed in section-7	02	5.60 Kanals	1 No= 120'x32' 1 No= 90'x32'													

	<p>2)-Parking shed is designed for 28-year life.</p> <p>3)-This Parking shed is designed for 17 vehicles of SWM Machinery.</p>										
<p><b>10. Financial Plan</b></p> <p><b>Sources of financing</b></p> <p><u>Debt</u></p> <p>a) Indicate the local and foreign debt Loan</p>	<p>Below given loan for the Punjab Cities Program has been funded by World Bank for 16 PCP cities in Punjab.</p> <table border="1"> <tr> <td>Total loan to Government of Pakistan/Punjab</td> <td>USD 200 million</td> </tr> <tr> <td>Component-1 for Infrastructure Development</td> <td>USD 180 million</td> </tr> <tr> <td>Component-2 for Investment Project Financing For capacity building of MCs &amp; three Govt. organization and program management.</td> <td>USD 20 million</td> </tr> <tr> <td>20% share of Municipalities is equivalent to</td> <td>USD 36 million</td> </tr> <tr> <td>Total funds available for Infrastructure Development</td> <td>USD 216 million</td> </tr> </table> <p>This project will be funded under this financing.</p>	Total loan to Government of Pakistan/Punjab	USD 200 million	Component-1 for Infrastructure Development	USD 180 million	Component-2 for Investment Project Financing For capacity building of MCs & three Govt. organization and program management.	USD 20 million	20% share of Municipalities is equivalent to	USD 36 million	Total funds available for Infrastructure Development	USD 216 million
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<p>b) Equity</p>	<p><b>A. Loan/grant to MC</b></p> <p>The amount of loan converted to grant to MC Kamalia will be Rs <b>34.034 million</b>. The financing of the project will be as give n below:</p> <table border="1"> <tr> <td>Grant to MC Kamalia from World Bank (80% of cost of PC-I)</td> <td>PKR 34.034 million</td> </tr> <tr> <td>20% Co-finance by MC</td> <td>PKR 8.508 million</td> </tr> <tr> <td>Total cost of project</td> <td>PKR 42.543 million</td> </tr> </table> <p><b>B. Project Cost =Rs. 42.543 million</b></p> <p>*The loan is from World Bank to Government of Pakistan/Punjab which will trickle down to MC Kamalia as grant.</p>	Grant to MC Kamalia from World Bank (80% of cost of PC-I)	PKR 34.034 million	20% Co-finance by MC	PKR 8.508 million	Total cost of project	PKR 42.543 million				
Grant to MC Kamalia from World Bank (80% of cost of PC-I)	PKR 34.034 million										
20% Co-finance by MC	PKR 8.508 million										
Total cost of project	PKR 42.543 million										
<p>c) Grants</p>	<p>No grant is being given by Government of Punjab out of ADP funds. The World Bank loan to Government of Pakistan/Punjab will trickle down as grant to MC from Government of Punjab.</p>										
<p>d) Weighted cost of capital</p>	<p>Nil</p>										
<p><b>11-Project benefits and analysis</b></p>											
<p>i. Financial:</p> <p>Income to the project with assumption</p>	<ul style="list-style-type: none"> <li>No income will be generated from the project and hence the Financial Analysis is not required.</li> <li>It is a social sector project and the capital cost of the project is not intended to be recovered. MC will meet the cost of repair and maintenance out of its own resources. The project economic analysis is given as <b>Annexure-C</b>.</li> </ul>										

<p>ii.Social benefits to the target group</p>	<p>The completion of the project will result in:</p> <ul style="list-style-type: none"> <li>• Provision of suitable parking area for the MC Vehicles.</li> <li>• Making MC self-sufficient in small repairs to the machinery &amp; Equipment possessed by MC</li> <li>• Provision of a washing facilities for the vehicles</li> <li>• Effective protection to the vehicles against the solar radiation and Ultraviolet rays, rain, hail, wind, and dust.</li> <li>• Slowing down the deterioration of vehicles, therefore reducing the cost of maintenance.</li> <li>• Enhancement of the security of vehicles during non-working hours.</li> <li>• Better watch and ward of MC machinery and equipment and reduction of losses due to theft of equipment and spares.</li> <li>• Provision of better solid waste management service by protection of the machinery and equipment.</li> </ul>
<p>iii.Environmental Impact negative/positive</p>	<p>Primary and secondary data has been collected and used to assess the environmental impacts of the proposed Parking Area. Site visit was conducted to the project area for the proposed works and to assess the baseline in order to evaluate whether there are any key receptors that will need to be considered during the project works to prevent any long term and irreversible impacts. The activities to be conducted under the project were screened for potential impacts at the design/pre-construction, construction and operation phases of the Parking Sheds. This ‘activity wise’ screening enabled to obtain a clear picture of the expected level of impacts resulting from the different activities and helped identify required mitigation measures to mitigate them to within acceptable limits as per the guidelines provided by the World Bank in the form of Environment and Social Management Framework. However, the impacts will be temporary and there will be no negative impacts after completion of the project, rather, during the operation phase of the Parking Sheds, mostly positive impacts are expected. To facilitate the selection of an optimal solution and for the inclusion of Safe Operating Procedures for Construction workers/laborers; assessment indicators or an Environmental Screening Checklist has been developed which is attached as Annexure E (A) of this PC-1. The checklist focuses on Environmental Issues and social concerns and ensure that all environmental and social dimensions are adequately considered. Based on the remarks of the screening checklist, Environment and Social Management Plans (ESMPs) does not need to be prepared. However, the necessary cost for Environment Health and Safety of Workers has been incorporated in the PC-1. The Environment, Health and Safety SOPs for labor/workers are provided as Annexure E (B).</p>

iv.Quantifiable project outputs	The quantifiable project out puts have been given above in Sr. No-9 (V). The social benefits to the citizen have been described at Sr. No-11(ii).												
v.Unit cost analysis	<p><b>A) Capital Unit Cost</b> The unit cost analysis is produced below;</p> <table border="1" data-bbox="571 360 1473 495"> <tr> <td>Project capital cost</td> <td>PKR 42.543 million</td> </tr> <tr> <td>Population of the city in year 2023</td> <td>164,715 persons</td> </tr> <tr> <td>Unit capital cost per capita</td> <td>PKR 258</td> </tr> </table> <p><b>B)-Unit R&amp;M cost:</b></p> <table border="1" data-bbox="571 577 1473 712"> <tr> <td>Annual R&amp;M cost</td> <td>697,604</td> </tr> <tr> <td>Population of the city in year 2023</td> <td>164,715 persons</td> </tr> <tr> <td>Unit R&amp;M cost per capita</td> <td>PKR 4.65</td> </tr> </table>	Project capital cost	PKR 42.543 million	Population of the city in year 2023	164,715 persons	Unit capital cost per capita	PKR 258	Annual R&M cost	697,604	Population of the city in year 2023	164,715 persons	Unit R&M cost per capita	PKR 4.65
Project capital cost	PKR 42.543 million												
Population of the city in year 2023	164,715 persons												
Unit capital cost per capita	PKR 258												
Annual R&M cost	697,604												
Population of the city in year 2023	164,715 persons												
Unit R&M cost per capita	PKR 4.65												
vi.Employment generation (direct and indirect)	<p><b><u>Employment Analysis</u></b> <b>Direct Employment</b></p> <p><b>a) Planning and Design of projects</b> The planning and design of the project has been entrusted to local consultants (JERS Consultancy) who have appointed staff and experts in Structural designing and related disciplines along with their support staff. The consultants will also appoint their staff for resident supervision of the project to verify and certify the items of works to be executed under this PC-I.</p> <p><b>b) Execution of the Project</b></p> <p><b>a) PMDFC</b> PMDFC has the project monitoring and supervisory role and the company has enough experts and staff to complete this assignment. PMDFC has already deployed under mentioned staff for these projects:</p> <ul style="list-style-type: none"> <li>• Civil Engineers</li> <li>• Accounts, administration and audit personnel</li> <li>• Urban planners</li> <li>• GIS experts</li> <li>• Support staff like computer operators, vehicle drivers, office boys and guards.</li> <li>• Procurement experts</li> <li>• Communication experts</li> <li>• Environmental and social experts</li> <li>• Contract management experts</li> </ul> <p><b>b) Consultants</b> PMDFC has employed consultants for detailed design and resident supervision of the projects who have deployed their staff for detailed design and resident supervision of the project.</p>												

	<p><i>c) Municipality</i> MC Kamalia has regular staff like engineers, sub engineers and other administrative &amp; accounts keeping staff which will be responsible for execution of the project and contract management. No additional staff will be needed for execution of this project</p> <p><i>d) Contractor</i> The contractor responsible for execution of the sub project will employ skilled and un-skilled labor on this work.</p> <p><b>Indirect Employment</b> Indirect employment for production of material such as cement, steel, stone metal, bitumen, bricks etc. will be generated.</p>
vii. Impacts of delays on project cost and viability	<p>The impact of delay in project implementation will result in;</p> <ul style="list-style-type: none"> <li>• Increased project cost due to escalation in cost of material and labor.</li> <li>• Deterioration of vehicles due to weathering effects</li> <li>• Recurrent watch and ward problems for the delayed period</li> </ul>
<b>12-Implementation Schedule</b>	
a) Indicate starting and completion date of the project	The project is anticipated to commence by November 2022 and to be completed by April 2023 with project implementation period of 06 months.
b) Item wise/year wise schedule in line chart	The Gant chart has been attached at <b>Annexure-D</b>
<b>13- Management Structure and manpower requirements</b>	
i. Administrative arrangements for the implementation of the project	<p><b>ii. Planning &amp; design of the project</b> The project has been designed by the consultants employed by PMDFC and will also carry out the resident supervision of the project.</p> <p><b>iii. Preparation of cost estimation</b> The cost estimates have been prepared by the design consultants by actual measurements and requirements at site. The execution of the items of works included in these estimates /PC-I will be certified by these consultants.</p> <p><b>iv. Execution of the project</b></p> <ul style="list-style-type: none"> <li>• The project will be executed by MC Kamalia and supervised by the Consultants appointed by PMDFC in resident supervision mode. The technical staff &amp; experts in PMDFC will oversee, coordinate and collaborate in the project planning, design and implementation through their experts in head office located in</li> </ul>

	<p>Lahore and regional offices. The reporting of progress to LG &amp; CDD &amp; World bank and troubleshooting will also be responsibility of PMDFC.</p> <ul style="list-style-type: none"> <li>• MO (I&amp;S) of the MC has been designated as Project Manager /Engineer in Charge of the project. The supervision of the works will also be carried out by these municipal officers along with their support engineering staff. All supervisory staff is available with MC.</li> <li>• The procurement of works and goods will be done by Procurement Committee of Kamalia Unit as per PPRA Rules.</li> </ul> <p><b>v. Verification of quantities included in PC-Is and Resident Supervision of the works by consultants</b></p> <p>The works will be supervised by Supervision Consultants in resident supervision mode by assuring the quantity and quality of works. The consultants will verify the items of work and their quantities contained in the PC-Is and cost estimates initially and then the quantities and quality of works included in the contractor claims at the stage of payments. Payments will be made by the MC after these contractor claims have been entered in the measurement books by the Project Manager/Engineer in Charge and pre audited as per LG Works Rules.</p>
<p>ii)The manpower requirements by skills during execution and operation of the project and;</p> <p>The job description, qualification, experience, age and salary of each post</p>	<p><b>a) PMDFC experts and staff</b></p> <p>For rendering assistance in implementation of infrastructure projects in 16 MCs, PMDFC has the experts and staff in the required fields. In order to facilitate the Program Units, three regional offices have been established by PMDFC at Gujranwala, Faisalabad and Multan/Khanewal.</p> <p><b>b) Resident Supervision Consultants</b></p> <p>The project will be supervised by consultants. The tentative staff to be employed/deployed by the consultants for the certification of quantities of works and resident supervision of the project is given below:</p>

S #	Personnel	Nos	Qualification
1	Chief Resident Engineer/Team Leader	01	BSc;/BE in Civil engineering from HEC approved University with minimum 20 years' professional experience and 5 years' experience on similar assignment or MSC; Civil Engineering/Public Health Engineering/Environmental Engineering with Bachelor in Civil Engineering and minimum 15 years, experience, with 5 years on similar assignments on urban planning, designing and construction supervision assignment.
2	Assistant Resident Engineer	01	Bachelor Degree in Civil engineering with minimum 8 years' experience in site supervision and execution for projects of similar nature
3	Site Inspectors	01	DAE in Civil with minimum 10 years' experience in site supervision for projects of similar nature
<p><b>c) Contractor's Technical staff, skilled &amp; non skilled labor</b> The contractors will employ the supervisory technical staff and skilled &amp; non skilled labor for execution of works. The works will be supervised by experienced Engineers and sub engineers and the number of slots for engineers and skilled and non-skilled will depend upon the type and quantity of work and its period of completion.</p> <p><b>d) Repair &amp; maintenance of the project</b> MC has its own regular staff which has been deployed for repair and maintenance of the municipal services infrastructure. However, it has been observed that the existing staff is not adequate to repair and maintain the services in a manner which can give good service delivery. Hence it is proposed to;</p> <ul style="list-style-type: none"> <li>• Fill up the presently vacant slots</li> <li>• Recruit additional staff as per need of the infrastructure after obtaining the sanctions from the competent authorities.</li> </ul>			
14-Additional projects /decisions required to optimize the investment being undertaken	<p><b>1) Shortage &amp; frequent transfers of Provincially appointed staff</b> MC is facing shortage in provincially appointed and locally appointed cadres. This will seriously affect the pace of progress of the program and the implementation of the infrastructure projects may be delayed. Provincial Government should fill up the vacant staff immediately for optimizing the investments in MC.</p> <p><b>2) Repair &amp; Maintenance (R&amp;M) staff</b> The R&amp;M staff is also deficient and this is adversely affecting the service delivery level. Number of slots are vacant but MC is not</p>		

	<p>allowed to recruit the persons to fill these slots due to ban on recruitments.</p> <p>Further the sanctioned strength of the field staff is much lesser than the actual requirement because with the increase in population and extension of services, additionally required staff has not been sanctioned by the competent authorities.</p> <p>Both of the above issues need to be addressed for optimal utilization of the investments and giving targeted benefits to the resident population of these cities.</p>
15-Certificate	Certified that the project proposal has been prepared on the basis of guidelines provided by the Planning Commission for the preparation of PC-I for social sectors projects.

<b>Prepared by</b>	JERS Consultancy (Pvt) Ltd	Stamp & Signatures	
<b>Checked by</b>	Municipal Officer (Infrastructure) MC Kamalia	Stamp & Signatures	
	Chief Officer MC Kamalia	Stamp & Signatures	
<b>Forwarded by</b>	Administrator MC Kamalia	Stamp & Signatures	
<b>Vetted By</b>	Senior Program Officer (PMDFC)	Stamp & Signatures	



# **Annexure-1**

## **Annual Recurrent Cost**

### Annual Recurrent Cost after Completion of the Project

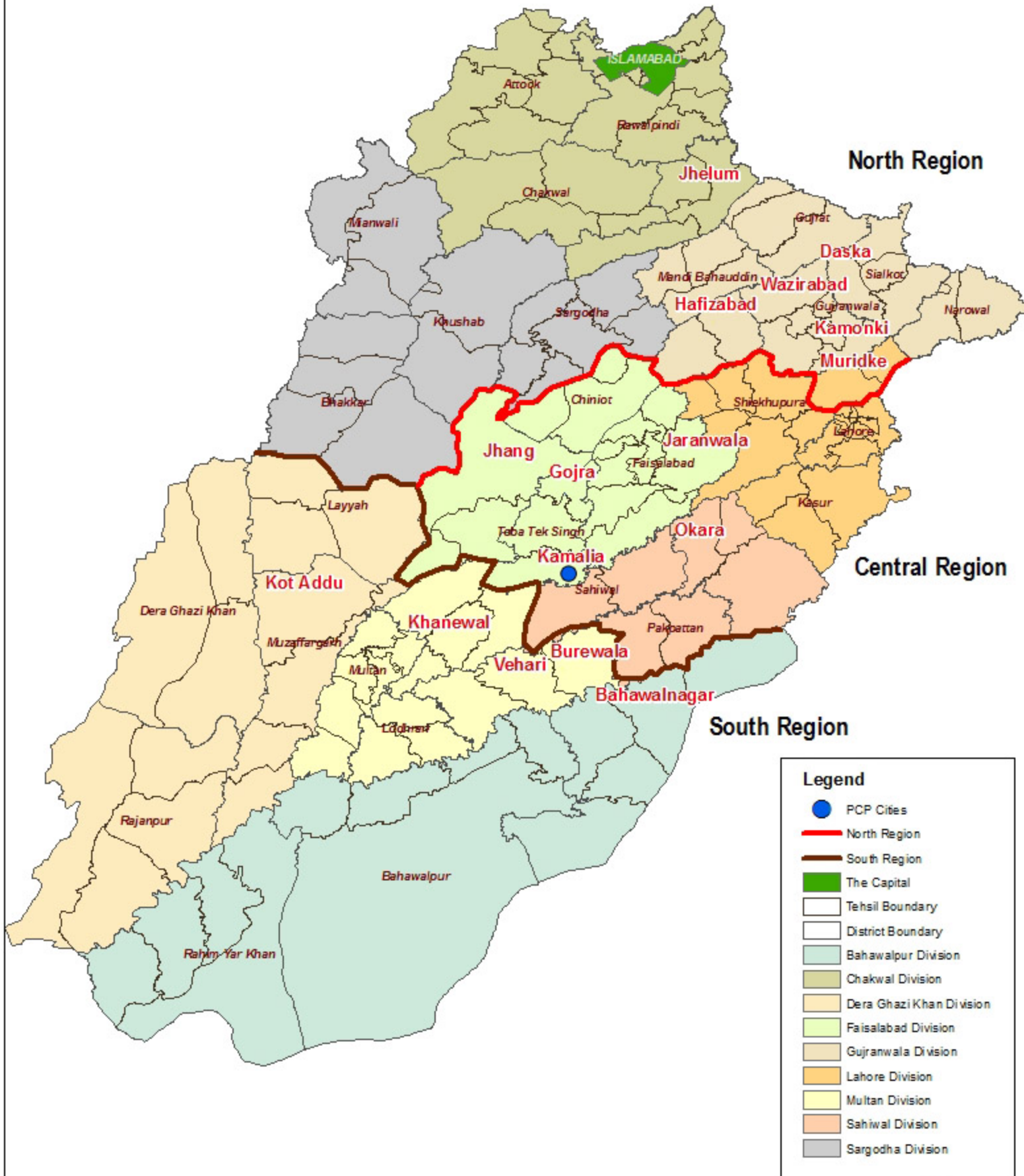
<b>Cost Category</b>	<b>Cost Breakup</b>	<b>Cost per Annum</b>
Annual Maintenance Cost of The Civil Works	1% of Project Cost = 0.01*(39,760,483)	397,604
Annual Man Power Cost of One Guard	Rs.25,000/month	300,000
Total cost per Annum (Million Rs.)		697,604

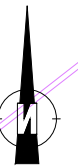
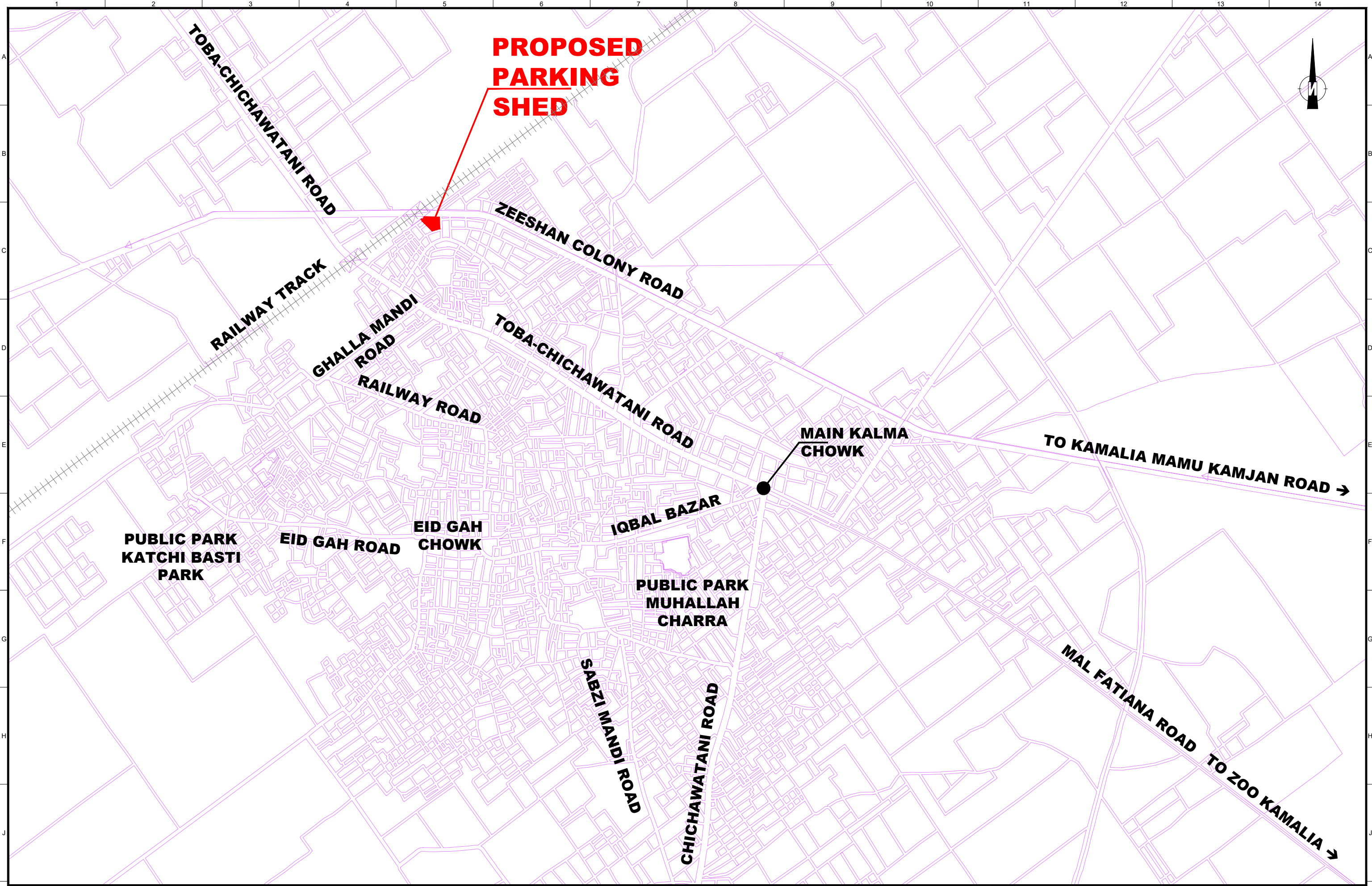
# **Annexure-A**



## **Location Map**

# Location Map (Punjab Cities Program)

## ANNEXURE - A





<p>CLIENT:</p>  <p><b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b></p>	<p>CONSULTANTS:</p>  <p><b>JERS CONSULTANCY (PVT) LTD</b>          24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</p>	<p>PROJECT:</p> <p><b>PUNJAB CITIES PROGRAM (PCP)</b>          DETAILED DESIGN OF INFRASTRUCTURE          SUB-PROJECTS AND RESIDENTS SUPERVISION IN          16 CITIES OF PUNJAB. 19</p>	<p>DRAWING TITLE:</p> <p><b>PROJECT AREA          KEY PLAN          (KAMALIA)</b></p>	<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION	-	-	-	<p>DRAWN BY: MUNIR</p> <p>CHECKED BY: HASEEB</p> <p>DATE: JULY.,2022</p>	<p>DRAWING NO: <b>PS-01</b></p> <table border="1"> <tr> <td>SCALE: UNIT=FEET 1"=1200'</td> <td>SHEET: 1 OF 1 JOB NO: 488-01</td> </tr> </table>	SCALE: UNIT=FEET 1"=1200'	SHEET: 1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION												
-	-	-												
SCALE: UNIT=FEET 1"=1200'	SHEET: 1 OF 1 JOB NO: 488-01													

# **Annexure-B**

## **Rough Cost Estimate**



## **Punjab Municipal Development Fund Company**

**Consultancy Services for Detailed Design of Infrastructure  
sub-projects (Parking Sheds, Parks, Roads, Chowks, etc.)  
and Resident Supervision in 16 Cities of Punjab**

### **Construction of SWM Parking Area**

### **MC Kamalia**

### **Detailed Cost Estimate**

**October, 2022**



**JERS CONSULTANCY (PVT) LTD**  
(Formerly Jers Engineering Consultants)

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E-mail: [info@jers.com.pk](mailto:info@jers.com.pk), [mail@jers.com.pk](mailto:mail@jers.com.pk)

Web: <http://www.jers2pm.pk>



<b>PUNJAB CITIES PROGRAM (PCP)</b>		
<b>DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS</b>		
<b>SUPERVISION IN 16 CITIES OF PUNJAB</b>		
<b>DETAILED COST ESTIMATE</b>		
<b>SWM PARKING AREA (KAMALIA)</b>		
<b>SUMMARY</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Amount (Rs)</b>
<b>1</b>	<b>OFFICE BUILDING</b>	
i	Civil Work	1,043,862
ii	Plumbing Work	94,231
iii	Electrical Work	231,596
<b>2</b>	<b>GUARD ROOM</b>	
i	Civil Work	500,919
ii	Plumbing Work	6,518
iii	Electrical Work	71,849
<b>3</b>	<b>STORE ROOM</b>	
i	Civil Work	1,789,804
ii	Plumbing Work	6,518
iii	Electrical Work	159,802
<b>4</b>	<b>WORK SHOP</b>	
i	Civil Work	2,689,092
ii	Plumbing Work	85,764
iii	Electrical Work	356,012
<b>5</b>	<b>PARKING SHED (SIZE 120' x 32')</b>	
i	Civil Work	10,589,617
iii	Electrical Work	360,584
<b>6</b>	<b>PARKING SHED (SIZE 90' x 32')</b>	
i	Civil Work	8,052,346
iii	Electrical Work	271,215
<b>7</b>	<b>WASHING PIT</b>	526,670
<b>8</b>	<b>PUMP PAD</b>	15,204



<b>PUNJAB CITIES PROGRAM (PCP)</b> <b>DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS</b> <b>SUPERVISION IN 16 CITIES OF PUNJAB</b>		
<b>DETAILED COST ESTIMATE</b>		
<b>SWM PARKING AREA (KAMALIA)</b>		
<b>SUMMARY</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Amount (Rs)</b>
9	SEPTIC TANK	312,910
10	EXTERNAL WORK (BOUNDARY WALL + TUFF PAVER + LAWN)	8,649,802
11	EXTERNAL PLUMBING WORK	631,567
12	EXTERNAL ELECTRICAL WORK	3,202,179
13	ENVIRONMENTAL HEALTH & SAFETY COST	112,425
	<b>Total Amount (Rs)</b>	<b>39,760,483</b>
	Contingencies @ 2%	795,210
	PRA Charges @ 5%	1,988,024
	<b>Total Amount. Rs.</b>	<b>42,543,717</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.48	10,677.75	5,125
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	808.25	9.25	7,476
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.64	28,986.90	18,552
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5	100 Cft	3.73	29,326.30	109,387
		<b>Horizontal D.P.C</b>				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.58	8,639.45	5,011
		<b>Vertical D.P.C</b>				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	0.78	6,459.70	5,039

**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Brick work in Super Structure</b>				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	6.15	31,510.10	193,787
		<b>Concrete Work</b>				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	169.00	556.50	94,049
		<b>Steel Work.</b>				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	5.43	31,784.50	172,590
		<b>Sand Filling</b>				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	6.24	2,943.30	18,366
		<b>Brick ballast</b>				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.	100 Cft	0.75	8,891.50	6,669
		<b>Plain Cement Concrete</b>				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	0.38	38,178.90	14,508

**PUNJAB CITIES PROGRAM (PCP)**  
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**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Porcelain Tile</b>				
13	10/42/d	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		d) (Non-Skid Chequered Tiles) 300mmx300mm	Per Sft	192.00	211.60	40,627
14	10/43/a	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		a) Full body Glazed Tile				
		(i) 400 mm x 400 mm	Per Sft	18.48	292.75	5,410
		<b>Ceramic Tile</b>				
15	10/24	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1:2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	35.00	240.00	8,400
16	10/25	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over 1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	168.00	292.75	49,182

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Slab Plaster</b>				
17	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)	100 Sft	2.27	3,708.60	8,419
		<b>Cement Plaster</b>				
18	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick	100 Sft	7.46	4,379.60	32,672
		<b>Pointing</b>				
19	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- a) ratio 1:2	100 Sft	7.72	3,518.35	27,162
20	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	7.72	652.50	5,037
		<b>Distempering</b>				
21	11/23	Distempering:- iii) three coats	100 Sft	9.73	1,295.00	12,600
		<b>Wooden Door</b>				
22	12/49-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partial wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	42.00	1,930.15	81,066
		<b>Lock</b>				
23	12/21	Providing and fixing, approved quality mortice lock.	Each	2.00	771.50	1,543
		<b>Paint</b>				
24	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	0.84	1,292.00	1,085
		ii) Second coat	100 Sft	0.84	711.40	598

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Steel Window</b>				
25	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	52.00	1,081.95	56,261
		<b>Roof Insulation</b>				
26	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	2.92	11,317.60	33,047
27	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	292.00	7.85	2,292
		<b>Khurras</b>				
28	9/15	Khurras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855
		<b>Bottom Khurras</b>				
29	9/16	Bottom Khurras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	1.00	1,744.00	1,744
30	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	242.81	104.21	25,303
		<b>Total Rs.</b>				<b>1,043,862</b>

PUNJAB CITIES PROGRAM (PCP)							
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS							
SUPERVISION IN 16 CITIES OF PUNJAB							
OFFICE BUILDING							
CALCULATION OF QUANTITIES							
CIVIL WORK							
Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Office wall	1	59.00	2.50	2.50	368.75	Cft
	Toilet wall	1	18.50	2.50	2.50	115.63	Cft
					Total	484.38	Cft
					<b>Total</b>	<b>0.48</b>	<b>%Cft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Office wall	1	59.00	7.50		442.50	Sft
	Toilet wall	1	18.50	7.50		138.75	Sft
	Floor	1	16.00	12.00		192.00	Sft
		1	7.00	5.00		35.00	Sft
					Total	808.25	Sft
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Office wall	1	59.00	2.50	0.33	48.68	Cft
	Toilet wall	1	18.50	2.50	0.33	15.26	Cft
					Total	63.94	Cft
					<b>Total</b>	<b>0.64</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Brick work in Foundation</b>						
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5						
	<b>Office wall</b>						
	Step - 1	1	59.00	1.875	0.25	27.66	Cft
	Step - 2	1	59.00	1.500	0.25	22.13	Cft
	Step - 3	1	59.00	1.125	0.25	16.59	Cft
	Step - 4	1	59.00	0.750	4.92	217.71	Cft
	<b>Toilet wall</b>						
	Step - 1	1	18.50	1.875	0.25	8.67	Cft
	Step - 2	1	18.50	1.500	0.25	6.94	Cft
	Step - 3	1	18.50	1.125	0.25	5.20	Cft
	Step - 4	1	18.50	0.750	4.92	68.27	Cft
					Total	373.16	Cft
					<b>Total</b>	<b>3.73</b>	<b>%Cft</b>
	<b>Horizontal D.P.C</b>						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Office wall	1	59.00	0.75		44.25	Sft
	Toilet wall	1	18.50	0.75		13.88	Sft
					Total	58.13	Sft
					<b>Total</b>	<b>0.58</b>	<b>%Sft</b>
	<b>Vertical D.P.C</b>						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Office wall	1	59.00		1.00	59.00	Sft
	Toilet wall	1	18.50		1.00	18.50	Sft
					Total	77.50	Sft
					<b>Total</b>	<b>0.78</b>	<b>%Sft</b>
	<b>Brick work in Super Structure</b>						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Office wall	1	59.00	0.75	10.50	464.63	Cft
	Toilet wall	1	18.50	0.75	10.50	145.69	Cft
	Parapet Wall	1	73.50	0.38	2.50	68.91	Cft
	Entrance step	2	4.00	1.00	0.75	6.00	Cft
	D/d Doors and Window						
	D-1	-1	3.50	0.75	7.00	(18.38)	Cft
	D-2	-1	2.50	0.75	7.00	(13.13)	Cft



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	-2	6.00	0.75	4.00	(36.00)	Cft
	V-1	-1	2.00	0.70	2.00	(2.80)	Cft
					Total	614.92	Cft
					<b>Total</b>	<b>6.15</b>	<b>%Cft</b>
	<b>Concrete Work</b>						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	17.50	13.50	0.50	118.13	Cft
	Toilet Slab	1	6.50	8.50	0.50	27.63	Cft
	Sun shade	1	5.50	1.50	0.25	2.06	Cft
	Sun shade	2	8.00	1.50	0.25	6.00	Cft
	Sun shade	1	3.00	1.50	0.25	1.13	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	D-2	1	3.50	0.75	0.75	1.97	Cft
	W-1	2	7.00	0.75	0.75	7.88	Cft
	V-1	1	3.00	0.75	0.75	1.69	Cft
					<b>Total</b>	<b>169.00</b>	<b>Cft</b>
	<b>Steel Work.</b>						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)						
	Top Slab & lintel @ 6.75 lbs / Cft						
			6.75		=	1,140.75	lbs/cft
					Total =	1,140.75	lbs/cft
					Total =	517.58	Kg.
					Add 5% Wastage. =	25.88	Kg.
					<b>Total =</b>	<b>543</b>	<b>Kg</b>
					<b>Total</b>	<b>5.43</b>	<b>%kg</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Sand Filling</b>						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	12.00	16.00	2.75	528.00	Cft
	toilet	1	7.00	5.00	2.75	96.25	Cft
					Total	624.25	Cft
					<b>Total</b>	<b>6.24</b>	<b>%Cft</b>
	<b>Brick ballast</b>						
11	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.						
	Floor	1	12.00	16.00	0.33	63.36	Cft
	toilet	1	7.00	5.00	0.33	11.55	Cft
					Total	74.91	Cft
					<b>Total</b>	<b>0.75</b>	<b>%Cft</b>
	<b>P.C.C</b>						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	Ratio 1: 2: 4						
	Floor	1	12.00	16.00	0.17	32.00	Cft
	toilet	1	7.00	5.00	0.17	5.83	Cft
					Total	0.38	%Cft
	<b>Porcelain Tile</b>						
13	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over ¾" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	d) (Non-Skid Chequered Tiles) 300mmx300mm	1	12.00	16.00		192.00	Sft
					Total	192.00	Sft
14	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over ½" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	a) Full body Glazed Tile						
	(i) 400 mm x 400 mm	1	56.00		0.33	18.48	Sft
					Total	18.48	Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Ceramic Tile</b>						
15	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1:2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	1	7.00	5.00		35.00	Sft
					<b>Total</b>	<b>35.00</b>	<b>Sft</b>
16	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over 1/2" thick (1:2) cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	2	7.00		7.00	98.00	Sft
		2	5.00		7.00	70.00	Sft
					<b>Total</b>	<b>168.00</b>	<b>Sft</b>
	<b>Slab Plaster</b>						
17	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)						
		1	12.00	16.00		192.00	Sft
		1	7.00	5.00		35.00	Sft
					<b>Total</b>	<b>2.27</b>	<b>%Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Cement Plaster</b>						
18	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick						
	Office Room						
		2	12.00		10.50	252.00	Sft
		2	16.00		10.50	336.00	Sft
	Toilet						
		2	7.00		10.50	147.00	Sft
		2	5.00		10.50	105.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft
	W-1	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	746.00	Sft
					<b>Total</b>	<b>7.46</b>	<b>%Sft</b>
	<b>Pointing</b>						
19	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- a) ratio 1:2						
	Outer Walls	1	73.50		10.50	771.75	Sft
					Total	771.75	Sft
					<b>Total</b>	<b>7.72</b>	<b>%Sft</b>
20	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.						
					<b>Total</b>	<b>7.72</b>	<b>%Sft</b>
	<b>Distempering</b>						
21	Distempering:- iii) three coats						
	Office Room						
		2	12.00		10.50	252.00	Sft
		2	16.00		10.50	336.00	Sft
	Toilet						
		2	7.00		10.50	147.00	Sft
		2	5.00		10.50	105.00	Sft
	Slab	1	12.00	16.00		192.00	Sft
		1	7.00	5.00		35.00	Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft
	W-1	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	973.00	Sft
					<b>Total</b>	<b>9.73</b>	<b>%Sft</b>
	<b>Wooden Door</b>						
22	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partial wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	3.50		7.00	24.50	Sft
	D-2	1	2.50		7.00	17.50	Sft
					<b>Total</b>	<b>42.00</b>	<b>Sft</b>
	<b>Lock</b>						
23	Providing and fixing, approved quality mortice lock.	2				<b>2.00</b>	<b>Each</b>
	<b>Paint</b>						
24	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii) Second coat				<b>Total</b>	<b>0.84</b>	<b>Sft</b>
	<b>Steel Window</b>						
25	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-						
	b) fixed with wire gauze, 22 SWG						
	v) glass pane 5 mm thick						

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	2	6.00		4.00	48.00	Sft
	V-1	1	2.00		2.00	4.00	Sft
					<b>Total</b>	<b>52.00</b>	<b>Sft</b>
	<b>Roof Insulation</b>						
26	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	17.50	13.50		236.25	Sft
		1	6.50	8.50		55.25	Sft
					Total	291.50	Sft
					<b>Total</b>	<b>2.92</b>	<b>%Sft</b>
27	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)						
					<b>Total</b>	<b>292.00</b>	<b>Sft</b>
	<b>Khurras</b>						
28	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				<b>1.00</b>	<b>Each</b>
	<b>Bottom Khuras</b>						
29	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	1				<b>1.00</b>	<b>Each</b>

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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**OFFICE BUILDING**

**PLUMBING WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Indian W.C</b>				
1	19-4-i	Providing and fitting glazed earthen ware water closet, squatter type (Orisa pattern), combined with foot rest.				
		i) white	Each	1.00	2,218.35	2,218
2	19-13-i	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete.				
		i) white	Each	1.00	2,649.35	2,649
3	19-7-i	Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc.				
		i) white, with pedestal	Each	1.00	5,169.95	5,170
4	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00	2,228.75	2,229
6	19-15	Providing and fixing, chromium plated soap dish.	Each	1.00	278.75	279
8	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	1.00	638.15	638
9	19-26	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	1.00	1,015.00	1,015
10	19-27	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	3.00	955.00	2,865
11	19-34-i	Providing and fixing, floor trap of cast iron, including concrete chamber all round, and C.I. grating:-				
		i) 10x5 cm (4"x2")	Each	1.00	627.95	628
12	19-36	Providing and fitting 10 cm (4") gully trap, including cement concrete, cost of PVC grating 15x15 cm (6"x6") and masonry chamber 30x30 cm (12"x12").	Each	1.00	1,096.85	1,097

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PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
13	19-35-ii	Providing and fitting "P" trap:- ii) 10 cm (4") glazed.	Each	2.00	283.15	566
		<b>PPRC Pipe</b>				
14	23-47	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC)water supply pipe made of (Dadex/ Popular /Beta/ BBJ)with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge.(Internal / External Diameters mentioned).				
		<b>b) PN-20 pipe</b>				
		(ii) (3/4") 25 mm	Rft	50.00	66.50	3,325
		(iii) (1") 32 mm	Rft	50.00	106.90	5,345
		<b>Valve</b>				
15	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		ii) 3/4" dia	Each	1.00	1,434.00	1,434
		iii) 1" dia	Each	1.00	1,674.00	1,674
		<b>uPVC Pipe</b>				
16	19-47	Providing, fixing, testing and commissioning of μ-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(iii) 2"(60 mm)	Rft	20.00	88.45	1,769
		(v) 4"(110 mm)	Rft	80.00	217.25	17,380
		(vi) 6"(160 mm)	Rft	20.00	381.50	7,630



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PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>HDPE Tank</b>				
17	19/51	Providing and hoisting vertical /horizontal type storage tank of required capacity made of rotationally molded from (HDPE), double ply polyethelene of approved manufacturer i/c cost of making connection for inlet/outlet pipe, float valve i/c all cost of specials & labour complete in all respect as approved and directed by the Engineer Incharge.	P.Gln	200.00	106.60	21,320
		<b>Total Rs. (A)</b>				<b>79,231</b>
		<b>Non-Schedule Item</b>				
18	N.S	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	1.00	15,000.00	15,000
		<b>Total Rs. (B)</b>				<b>15,000</b>
		<b>Total Amount Rs. (A + B)</b>				<b>94,231</b>

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DETAILED COST ESTIMATE						
OFFICE BUILDING						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
<b>Scheduled Items (A)</b>						
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	400.00	81.70	32,680
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	600.00	94.60	56,760
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaidd PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	1,500.00	25.70	38,550
4	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaidd PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	1,200.00	40.75	48,900
5	C-24/10a.iv	Supply and erection of single core PVC insulated copper conductor cables, in prelaidd PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)	Rft.	450.00	53.80	24,210
6	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	9.00	270.60	2,435

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DETAILED COST ESTIMATE						
OFFICE BUILDING						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
7	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	1.00	372.35	372
8	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	7.00	87.35	611
9	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	1.00	112.00	112
10	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	8.00	149.80	1,198
11	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete i) double rod (80 watts) with two chokes and 2 starters.	Each	6.00	2,164.65	12,988
12	C-24/102/a	Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas /G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge. (a) Plastic body (ii) 12 " dia	Each	1.00	3,133.00	3,133
<b>Sub Total (A)</b>						<b>221,951</b>
13	N.S	Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, complete in all respects	Each	1.00	1,215.00	1,215
14	N.S	Supply, installation and commissioning recessed 10W LED Down Light complete in all respects	Each	1.00	1,430.00	1,430
15	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	1.00	7,000.00	7,000
<b>Sub Total (B)</b>						<b>9,645</b>
<b>Sub Total (A+B)</b>						<b>231,596</b>

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**DETAILED COST ESTIMATE**

**GUARD ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.27	10,677.75	2,883
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	422.50	9.25	3,908
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.35	28,986.90	10,145
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5	100 Cft	2.07	29,326.30	60,705
		<b>Horizontal D.P.C</b>				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :- (a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.32	8,639.45	2,765
		<b>Vertical D.P.C</b>				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:- (a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	0.43	6,459.70	2,778

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**GUARD ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Brick work in Super Structure</b>				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	3.55	31,510.10	111,861
		<b>Concrete Work</b>				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	75.78	556.50	42,172
		<b>Steel Work.</b>				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	2.44	31,784.50	77,554
		<b>Sand Filling</b>				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	2.75	2,943.30	8,094
		<b>Brick ballast</b>				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.	100 Cft	0.33	8,891.50	2,934

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**DETAILED COST ESTIMATE**

**GUARD ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Plain Cement Concrete</b>				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	0.17	38,178.90	6,490
		<b>Porcelain Tile</b>				
13	10/42/d	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		d) (Non-Skid Chequered Tiles) 300mmx300mm	Per Sft	100.00	211.60	21,160
14	10/43/a	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		a) Full body Glazed Tile				
		(i) 400 mm x 400 mm	Per Sft	13.20	292.75	3,864
		<b>Slab Plaster</b>				
15	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)	100 Sft	1.00	3,708.60	3,709
		<b>Cement Plaster</b>				
16	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick	100 Sft	3.80	4,379.60	16,642
		<b>Pointing</b>				
17	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:-				
		a) ratio 1:2	100 Sft	4.83	3,518.35	16,994

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**DETAILED COST ESTIMATE**

**GUARD ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
18	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	4.83	652.50	3,152
		<b>Distempering</b>				
19	11/23	Distempering:-				
		iii) three coats	100 Sft	4.80	1,295.00	6,216
		<b>Wooden Door</b>				
20	12/49-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	24.50	1,930.15	47,289
		<b>Lock</b>				
21	12/21	Providing and fixing, approved quality mortice lock.	Each	1.00	771.50	772
		<b>Paint</b>				
22	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	0.49	1,292.00	633
		ii)Two coat	100 Sft	0.49	711.40	349
		<b>Steel Window</b>				

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**DETAILED COST ESTIMATE**

**GUARD ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
23	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	16.00	1,081.95	17,311
		<b>Roof Insulation</b>				
24	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	1.32	11,317.60	14,939
25	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	132.00	7.85	1,036
		<b>Khurras</b>				
26	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855
		<b>Bottom Khuras</b>				
27	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	1.00	1,744.00	1,744
28	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	114.82	104.21	11,965
		<b>Total Rs.</b>				<b>500,919</b>



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**GUARD ROOM**

**CALCULATION OF QUANTITIES**

**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Room wall	1	43.00	2.50	2.50	268.75	Cft
					Total	268.75	Cft
					<b>Total</b>	<b>0.27</b>	<b>%Cft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Room wall	1	43.00	7.50		322.50	Sft
	Floor	1	10.00	10.00		100.00	Sft
					Total	<b>422.50</b>	<b>Sft</b>
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Room wall	1	43.00	2.50	0.33	35.48	Cft
					Total	35.48	Cft
					<b>Total</b>	<b>0.35</b>	<b>%Cft</b>
	<b>Brick work in Foundation</b>						
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5						
	<b>Room wall</b>						
	Step - 1	1	43.00	1.875	0.25	20.16	Cft
	Step - 2	1	43.00	1.500	0.25	16.13	Cft
	Step - 3	1	43.00	1.125	0.25	12.09	Cft
	Step - 4	1	43.00	0.750	4.92	158.67	Cft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
					Total	207.05	Cft
					<b>Total</b>	<b>2.07</b>	<b>%Cft</b>
	<b>Horizontal D.P.C</b>						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Room wall	1	43.00	0.75		32.25	Sft
					Total	32.25	Sft
					<b>Total</b>	<b>0.32</b>	<b>%Sft</b>
	<b>Vertical D.P.C</b>						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Room wall	1	43.00		1.00	43.00	Sft
					Total	43.00	Sft
					<b>Total</b>	<b>0.43</b>	<b>%Sft</b>
	<b>Brick work in Super Structure</b>						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Room wall	1	43.00	0.75	10.50	338.63	Cft
	Parapet Wall	1	43.00	0.38	2.50	40.31	Cft
	Entrance step	2	4.00	1.00	0.75	6.00	Cft
	D/d Doors and Window						
	D-1	-1	3.50	0.75	7.00	(18.38)	Cft
	W-1	-1	4.00	0.75	4.00	(12.00)	Cft
					Total	354.56	Cft
					<b>Total</b>	<b>3.55</b>	<b>%Cft</b>
	<b>Concrete Work</b>						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	11.50	11.50	0.50	66.13	Cft
	Sun shade	1	5.50	1.50	0.25	2.06	Cft
	Sun shade	1	6.00	1.50	0.25	2.25	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	W-1	1	5.00	0.75	0.75	2.81	Cft
						<b>Total</b>	<b>75.78</b>
							<b>Cft</b>
	<b>Steel Work.</b>						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					75.78	Cft
	Top Slab & lintel @ 6.75 lbs / Cft		6.75		=	511.52	lbs/cft
					Total =	511.52	lbs/cft
					Total =	232.09	Kg.
					Add 5% Wastage. =	11.60	Kg.
					<b>Total =</b>	<b>244</b>	<b>Kg</b>
						<b>Total</b>	<b>2.44</b>
							<b>%kg</b>
	<b>Sand Filling</b>						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	10.00	10.00	2.75	275.00	Cft
					Total	275.00	Cft
						<b>Total</b>	<b>2.75</b>
							<b>%Cft</b>
	<b>Brick ballast</b>						
11	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.						
	Floor	1	10.00	10.00	0.33	33.00	Cft
					Total	33.00	Cft
						<b>Total</b>	<b>0.33</b>
							<b>%Cft</b>
	<b>P.C.C</b>						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Ratio 1: 2: 4						
	Floor	1	10.00	10.00	0.17	16.67	Cft
					<b>Total</b>	<b>0.17</b>	<b>%Cft</b>
	<b>Porcelain Tile</b>						
13	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	d) (Non-Skid Chequered Tiles) 300mmx300mm	1	10.00	10.00		100.00	Sft
					<b>Total</b>	<b>100.00</b>	<b>Sft</b>
14	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	a) Full body Glazed Tile						
	(i) 400 mm x 400 mm	1	40.00		0.33	13.20	Sft
					<b>Total</b>	<b>13.20</b>	<b>Sft</b>
	<b>Slab Plaster</b>						
15	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)						
		1	10.00	10.00		100.00	Sft
					<b>Total</b>	<b>1.00</b>	<b>%Sft</b>
	<b>Cement Plaster</b>						
16	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Guard Room						
		2	10.00		10.50	210.00	Sft
		2	10.00		10.50	210.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	W-1	-1	4.00		4.00	(16.00)	Sft
					<b>Total</b>	<b>379.50</b>	<b>Sft</b>
					<b>Total</b>	<b>3.80</b>	<b>%Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Pointing</b>						
17	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:-						
	a) ratio 1:2						
	Outer Walls	1	46.00		10.50	483.00	Sft
					Total	483.00	Sft
					<b>Total</b>	<b>4.83</b>	<b>%Sft</b>
18	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.						
					<b>Total</b>	<b>4.83</b>	<b>%Sft</b>
	<b>Distempering</b>						
19	Distempering:-						
	iii) three coats						
	Guard Room						
		2	10.00		10.50	210.00	Sft
		2	10.00		10.50	210.00	Sft
	Ceiling	1	10.00	10.00		100.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	W-1	-1	4.00		4.00	(16.00)	Sft
					Total	479.50	Sft
					<b>Total</b>	<b>4.80</b>	<b>%Sft</b>
	<b>Wooden Door</b>						
20	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	3.50		7.00	24.50	Sft
					<b>Total</b>	<b>24.50</b>	<b>Sft</b>
	<b>Lock</b>						
21	Providing and fixing, approved quality mortice lock.	1				<b>1.00</b>	<b>Each</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Paint</b>						
22	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii) Two coat				<b>Total</b>	<b>0.49</b>	<b>Sft</b>
	<b>Steel Window</b>						
23	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-						
	b) fixed with wire gauze, 22 SWG						
	v) glass pane 5 mm thick						
	W-1	1	4.00		4.00	16.00	Sft
					<b>Total</b>	<b>16.00</b>	<b>Sft</b>
	<b>Roof Insulation</b>						
24	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4" (100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	11.50	11.50		132.25	Sft
					Total	132.25	Sft
					<b>Total</b>	<b>1.32</b>	<b>%Sft</b>
25	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)				<b>Total</b>	<b>132.00</b>	<b>Sft</b>
	<b>Khurras</b>						
26	Khurras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				<b>1.00</b>	<b>Each</b>
	<b>Bottom Khurras</b>						
27	Bottom Khurras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	1				<b>1.00</b>	<b>Each</b>

PUNJAB CITIES PROGRAM (PCP)						
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS						
SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
GUARD ROOM						
PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>uPVC Pipe</b>				
1	19-47	Providing, fixing, testing and commissioning of $\mu$ -PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(v) 4"(110 mm)	Rft	30.00	217.25	6,518
		<b>Total Rs.</b>				<b>6,517.50</b>

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**GUARD ROOM**  
**ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
<b><u>Scheduled Items (A)</u></b>						
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	100.00	81.70	8,170
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	150.00	94.60	14,190
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	300.00	25.70	7,710
4	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	400.00	40.75	16,300
5	C-24/10a.iv	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)	Rft.	200.00	53.80	10,760
6	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	7.00	270.60	1,894
7	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	1.00	372.35	372



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<b>DETAILED COST ESTIMATE</b>						
<b>GUARD ROOM</b>						
<b>ELECTRICAL WORKS</b>						
<b>Sr. No.</b>	<b>2nd BI-Annual-2022 (July to Dec) Toba tek singh</b>	<b>Description</b>	<b>Unit.</b>	<b>Quantity</b>	<b>Rate (Rs.)</b>	<b>Amount (Rs.)</b>
8	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	3.00	87.35	262
9	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	1.00	112.00	112
10	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	5.00	149.80	749
11	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
		i) double rod (80 watts) with two chokes and 2 starters.	Each	2.00	2,164.65	4,329
		<b>Sub Total (A)</b>				<b>64,849</b>
12	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	1.00	7,000.00	7,000
		<b>Sub Total (B)</b>				<b>7,000</b>
		<b>Sub Total (A+B)</b>				<b>71,849</b>

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**DETAILED COST ESTIMATE**

**STORE ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.68	10,677.75	7,261
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	1,481.00	9.25	13,699
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.89	28,986.90	25,798
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5	100 Cft	5.20	29,326.30	152,497
		<b>Horizontal D.P.C</b>				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.81	8,639.45	6,998
		<b>Vertical D.P.C</b>				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	1.08	6,459.70	6,976

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**STORE ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Brick work in Super Structure</b>				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	8.54	31,510.10	269,096
		<b>Concrete Work</b>				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	410.50	556.50	228,443
		<b>Steel Work.</b>				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	13.20	31,784.50	419,555
		<b>Sand Filling</b>				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	18.45	2,943.30	54,304
		<b>Brick ballast</b>				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.	100 Cft	2.21	8,891.50	19,650

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**DETAILED COST ESTIMATE**

**STORE ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Tuff Paver</b>				
12	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		b) 60-mm thick	Per Sft	671.00	156.40	104,944
		<b>Slab Plaster</b>				
13	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)	100 Sft	6.71	3,708.60	24,885
		<b>Cement Plaster</b>				
14	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick	100 Sft	9.65	4,379.60	42,263
		<b>Pointing</b>				
15	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:-				
		a) ratio 1:2	100 Sft	15.54	3,518.35	54,675
16	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	15.54	652.50	10,140
		<b>Distempering</b>				
17	11/23	Distempering:- iii) three coats	100 Sft	16.36	1,295.00	21,186
		<b>Wooden Door</b>				
18	12/49-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	42.00	1,930.15	81,066

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**DETAILED COST ESTIMATE**

**STORE ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Lock</b>				
19	12/21	Providing and fixing, approved quality mortice lock.	Each	1.00	771.50	772
		<b>Paint</b>				
20	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	0.84	1,292.00	1,085
		ii) Two coat	100 Sft	0.84	711.40	598
		<b>Steel Window</b>				
21	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	96.00	1,081.95	103,867
		<b>Roof Insulation</b>				
22	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	7.52	11,317.60	85,108
23	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	752.00	7.85	5,903
		<b>Khurras</b>				
24	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855

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**DETAILED COST ESTIMATE**

**STORE ROOM**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Bottom Khuras</b>				
25	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	1.00	1,744.00	1,744
26	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	445.59	104.21	46,433
		<b>Total Rs.</b>				<b>1,789,804</b>

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SUPERVISION IN 16 CITIES OF PUNJAB**

**STORE ROOM**

**CALCULATION OF QUANTITIES**

**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Room wall	1	108.00	2.50	2.50	675.00	Cft
					Total	675.00	Cft
					<b>Total</b>	<b>0.68</b>	<b>%Cft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Room wall	1	108.00	7.50		810.00	Sft
	Floor	1	30.50	22.00		671.00	Sft
					Total	<b>1,481.00</b>	<b>Sft</b>
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Room wall	1	108.00	2.50	0.33	89.10	Cft
					Total	89.10	Cft
					<b>Total</b>	<b>0.89</b>	<b>%Cft</b>
	<b>Brick work in Foundation</b>						
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5						
	<b>Room wall</b>						
	Step - 1	1	108.00	1.875	0.25	50.63	Cft
	Step - 2	1	108.00	1.500	0.25	40.50	Cft
	Step - 3	1	108.00	1.125	0.25	30.38	Cft
	Step - 4	1	108.00	0.750	4.92	398.52	Cft
					Total	520.02	Cft
					<b>Total</b>	<b>5.20</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Horizontal D.P.C</b>						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Room wall	1	108.00	0.75		81.00	Sft
					Total	81.00	Sft
					<b>Total</b>	<b>0.81</b>	<b>%Sft</b>
	<b>Vertical D.P.C</b>						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Room wall	1	108.00		1.00	108.00	Sft
					Total	108.00	Sft
					<b>Total</b>	<b>1.08</b>	<b>%Sft</b>
	<b>Brick work in Super Structure</b>						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Room wall	1	108.00	0.75	10.50	850.50	Cft
	Parapet Wall	1	108.00	0.38	2.50	101.25	Cft
	Entrance step	2	4.00	1.00	0.75	6.00	Cft
	D/d Doors and Window						
	D-1	-1	6.00	0.75	7.00	(31.50)	Cft
	W-1	-4	6.00	0.75	4.00	(72.00)	Cft
					Total	854.25	Cft
					<b>Total</b>	<b>8.54</b>	<b>%Cft</b>
	<b>Concrete Work</b>						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	32.00	23.50	0.50	376.00	Cft
	Sun shade	1	23.50	1.50	0.25	8.81	Cft
	Sun shade	2	8.00	1.50	0.25	6.00	Cft
	Doors and window Lintels						
	D-1	1	7.00	0.75	0.75	3.94	Cft
	W-1	4	7.00	0.75	0.75	15.75	Cft
						<b>Total</b>	<b>410.50</b>
							<b>Cft</b>
	<b>Steel Work.</b>						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					410.50	Cft
	Top Slab & lintel @ 6.75 lbs / Cft		6.75		=	2,770.88	lbs/cft
					Total =	2,770.88	lbs/cft
					Total =	1,257.20	Kg.
					Add 5% Wastage. =	62.86	Kg.
					<b>Total =</b>	<b>1,320</b>	<b>Kg</b>
						<b>Total</b>	<b>13.20</b>
							<b>%kg</b>
	<b>Sand Filling</b>						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	30.50	22.00	2.75	1,845.25	Cft
					Total	1,845.25	Cft
						<b>Total</b>	<b>18.45</b>
							<b>%Cft</b>
	<b>Brick ballast</b>						
11	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.						
	Floor	1	30.50	22.00	0.33	221.43	Cft
					Total	221.43	Cft
						<b>Total</b>	<b>2.21</b>
							<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Tuff Paver</b>						
12	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	b) 60-mm thick	1	30.50	22.00		671.00	Sft
						<b>Total</b>	<b>671.00</b> Sft
	<b>Slab Plaster</b>						
13	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)						
		1	30.50	22.00		671.00	Sft
						<b>Total</b>	<b>6.71</b> %Sft
	<b>Cement Plaster</b>						
14	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Sitting Room						
		2	30.50		10.50	640.50	Sft
		2	22.00		10.50	462.00	Sft
	D/d Doors and Window						
	D-1	-1	6.00		7.00	(42.00)	Sft
	W-1	-4	6.00		4.00	(96.00)	Sft
						Total	964.50 Sft
						<b>Total</b>	<b>9.65</b> %Sft
	<b>Pointing</b>						
15	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:-						
	a) ratio 1:2						
	Outer Walls	1	111.00		14.00	1,554.00	Sft
						Total	1,554.00 Sft
						<b>Total</b>	<b>15.54</b> %Sft
16	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.						
						<b>Total</b>	<b>15.54</b> %Sft
	<b>Distempering</b>						
17	Distempering:-						
	iii) three coats						
	Store Room	2	30.50		10.50	640.50	Sft
		2	22.00		10.50	462.00	Sft
	Ceiling	1	30.50	22.00		671.00	Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	D/d Doors and Window						
	D-1	-1	6.00		7.00	(42.00)	Sft
	W-1	-4	6.00		4.00	(96.00)	Sft
					Total	1,635.50	Sft
					<b>Total</b>	<b>16.36</b>	<b>%Sft</b>
	<b>Wooden Door</b>						
18	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partial wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	6.00		7.00	42.00	Sft
					<b>Total</b>	<b>42.00</b>	<b>Sft</b>
	<b>Lock</b>						
19	Providing and fixing, approved quality mortice lock.	1				<b>1.00</b>	<b>Each</b>
	<b>Paint</b>						
20	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):- i) priming coat.						
	ii)Two coat				<b>Total</b>	<b>0.84</b>	<b>Sft</b>
	<b>Steel Window</b>						
21	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:- b) fixed with wire gauze, 22 SWG v) glass pane 5 mm thick						
	W-1	4	6.00		4.00	96.00	Sft
					<b>Total</b>	<b>96.00</b>	<b>Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Roof Insulation</b>						
22	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	32.00	23.50		752.00	Sft
					Total	752.00	Sft
					<b>Total</b>	<b>7.52</b>	<b>%Sft</b>
23	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc. ii) 500 gauge (.005" thick)						
					<b>Total</b>	<b>752.00</b>	<b>Sft</b>
	<b>Khurras</b>						
24	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				<b>1.00</b>	<b>Each</b>
	<b>Bottom Khuras</b>						
25	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	1				<b>1.00</b>	<b>Each</b>

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**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**STORE ROOM**

**PLUMBING WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>uPVC Pipe</b>				
1	19-47	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(v) 4"(110 mm)	Rft	30.00	217.25	6,518
		<b>Total Rs.</b>				<b>6,517.50</b>

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**STORE ROOM**

**ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
<b><u>Scheduled Items (A)</u></b>						
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	500.00	81.70	40,850
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	300.00	94.60	28,380
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	800.00	25.70	20,560
4	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	750.00	40.75	30,563
5	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	7.00	270.60	1,894
6	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	2.00	372.35	745
7	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	10.00	87.35	874
8	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	1.00	112.00	112

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STORE ROOM						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
9	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	6.00	149.80	899
10	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
		ii) single rod (40 watts) with one choke and one starter.	Each	12.00	1,221.70	14,660
11	C-24/102/a	Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas /G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		(a) Plastic body (ii) 12 " dia	Each	2.00	3,133.00	6,266
		<b>Sub Total (A)</b>				<b>145,802</b>
12	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	2.00	7,000.00	14,000
		<b>Sub Total (B)</b>				<b>14,000</b>
		<b>Sub Total (A+B)</b>				<b>159,802</b>

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**DETAILED COST ESTIMATE**

**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	1.25	10,677.75	13,347
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	1,981.17	9.25	18,326
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	1.16	28,986.90	33,625
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5	100 Cft	3.30	29,326.30	96,777
		<b>Horizontal D.P.C</b>				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.51	8,639.45	4,406
		<b>Vertical D.P.C</b>				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	0.69	6,459.70	4,457



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**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Brick work in Super Structure</b>				
7	7/5	Pacca brick work in ground floor:- i) Cement, sand mortar:- Ratio 1:5	100 Cft	5.57	31,510.10	175,511
		<b>Concrete Work</b>				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>In Foundation</b>				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	P.Cft	192.50	457.75	88,117
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	171.38	556.50	95,370
		<b>Steel Work.</b>				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	12.13	31,784.50	385,546
		<b>Sand Filling</b>				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	19.99	2,943.30	58,837

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**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Brick ballast</b>				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.	100 Cft	0.56	8,891.50	4,979
		<b>Plain Cement Concrete</b>				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	0.12	38,178.90	4,581
		<b>Sub Base Course</b>				
13	18/3/a/ (i) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	2.06	19,017.90	39,177
		<b>Water Bound Macadam</b>				
14	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	2.06	26,489.72	54,569
		<b>Tuff Paver</b>				
15	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		For Tool Room b) 60-mm thick	Per Sft	100.00	156.40	15,640

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**DETAILED COST ESTIMATE**

**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		For Work shop c) 80-mm thick	Per Sft	622.78	194.90	121,380
		<b>Ceramic Tile</b>				
16	10/24	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	70.00	240.00	16,800
17	10/25	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over 1/2" thick (1:2) cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	238.00	292.75	69,675
		<b>Slab Plaster</b>				
18	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)	100 Sft	1.70	3,708.60	6,305
		<b>Cement Plaster</b>				
19	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick	100 Sft	7.15	4,379.60	31,314
		<b>Pointing</b>				
20	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- a) ratio 1:2	100 Sft	8.68	3,518.35	30,539
21	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	8.68	652.50	5,664
		<b>Distempering</b>				
22	11/23	Distempering:- iii) three coats	100 Sft	8.85	1,295.00	11,461

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**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Wooden Door</b>				
23	12/49-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	42.00	1,930.15	81,066
		<b>Lock</b>				
24	12/21	Providing and fixing, approved quality mortice lock.	Each	2.00	771.50	1,543
		<b>Paint</b>				
25	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	0.84	1,292.00	1,085
		ii)Two coat	100 Sft	0.84	711.40	598
		<b>Steel Window</b>				
26	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	20.00	1,081.95	21,639

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**WORK SHOP**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Roof Insulation</b>				
27	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	2.25	11,317.60	25,465
28	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc. ii) 500 gauge (.005" thick)	Per Sft	225.00	7.85	1,766
		<b>Khurras</b>				
29	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855
		<b>Bottom Khurras</b>				
30	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	1.00	1,744.00	1,744
31	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	440.70	104.21	45,925
		<b>Parking Shed</b>				
32	N.S	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.	Sft	622.78	1,800.00	1,121,004
		<b>Total Rs.</b>				<b>2,689,092</b>

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SUPERVISION IN 16 CITIES OF PUNJAB							
WORK SHOP							
CALCULATION OF QUANTITIES							
CIVIL WORK							
Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Tool Room wall	1	43.00	2.50	2.50	268.75	Cft
	Toilet wall	1	25.50	2.50	2.50	159.38	Cft
	Columns	4	7.50	6.00	4.58	824.40	Cft
					Total	1,252.53	Cft
					<b>Total</b>	<b>1.25</b>	<b>%Cft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Tool Room wall	1	43.00	7.50		322.50	Sft
	Toilet wall	1	25.50	7.50		191.25	Sft
	Floor	1	10.00	10.00		100.00	Sft
		1	10.00	7.00		70.00	Sft
		1	27.38	22.75		622.78	Sft
	Columns	4	27.00	4.58		494.64	Sft
		4	7.50	6.00		180.00	Sft
					Total	1,981.17	Sft
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Tool Room wall	1	43.00	2.50	0.33	35.48	Cft
	Toilet wall	1	25.50	2.50	0.33	21.04	Cft
	Columns	4	7.50	6.00	0.33	59.40	Cft
					Total	115.91	Cft
					<b>Total</b>	<b>1.16</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Brick work in Foundation</b>						
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5						
	<b>Tool Room wall</b>						
	Step - 1	1	43.00	1.875	0.25	20.16	Cft
	Step - 2	1	43.00	1.500	0.25	16.13	Cft
	Step - 3	1	43.00	1.125	0.25	12.09	Cft
	Step - 4	1	43.00	0.750	4.92	158.67	Cft
	<b>Toilet wall</b>						
	Step - 1	1	25.50	1.875	0.25	11.95	Cft
	Step - 2	1	25.50	1.500	0.25	9.56	Cft
	Step - 3	1	25.50	1.125	0.25	7.17	Cft
	Step - 4	1	25.50	0.750	4.92	94.10	Cft
					Total	329.83	Cft
					<b>Total</b>	<b>3.30</b>	<b>%Cft</b>
	<b>Horizontal D.P.C</b>						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Tool Room wall	1	43.00	0.75		32.25	Sft
	Toilet wall	1	25.50	0.75		19.13	Sft
					Total	51.38	Sft
					<b>Total</b>	<b>0.51</b>	<b>%Sft</b>
	<b>Vertical D.P.C</b>						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Tool Room wall	1	43.00		1.00	43.00	Sft
	Toilet wall	1	25.50		1.00	25.50	Sft
					Total	68.50	Sft
					<b>Total</b>	<b>0.69</b>	<b>%Sft</b>
	<b>Brick work in Super Structure</b>						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Tool Room wall	1	43.00	0.75	10.50	338.63	Cft
	Toilet wall	1	25.50	0.75	10.50	200.81	Cft
	Parapet Wall	1	62.00	0.38	2.50	58.13	Cft
	Entrance step	2	4.00	1.00	0.75	6.00	Cft
	D/d Doors and Window						
	D-1	-1	3.50	0.75	7.00	(18.38)	Cft
	D-2	-1	2.50	0.75	7.00	(13.13)	Cft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	-1	4.00	0.75	4.00	(12.00)	Cft
	V-1	-1	2.00	0.70	2.00	(2.80)	Cft
					Total	557.26	Cft
					<b>Total</b>	<b>5.57</b>	<b>%Cft</b>
	<b>Concrete Work</b>						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>In Foundation</b>						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns	4	7.00	5.50	1.25	192.50	Cft
					<b>Total</b>	<b>192.50</b>	<b>Cft</b>
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	225.00	1.00	0.50	112.50	Cft
	Sun shade	1	3.00	1.50	0.25	1.13	Cft
	Columns	4	1.25	1.50	6.50	48.75	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	D-2	1	3.50	0.75	0.75	1.97	Cft
	W-1	1	5.00	0.75	0.75	2.81	Cft
	V-1	1	3.00	0.75	0.75	1.69	Cft
					<b>Total</b>	<b>171.38</b>	<b>Cft</b>



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Steel Work.</b>						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					363.88	Cft
	Top Slab, lintel & Columns @ 7 lbs / Cft		7.00		=	2,547.13	lbs/cft
				Total	=	2,547.13	lbs/cft
				Total	=	1,155.68	Kg.
				Add 5% Wastage.	=	57.78	Kg.
				<b>Total</b>	=	<b>1,213</b>	<b>Kg</b>
						<b>Total</b>	<b>12.13</b> %kg
	<b>Sand Filling</b>						
10	Supplying and filling sand under floor; or plugging in wells.						
	Tool Floor	1	10.00	10.00	2.50	250.00	Cft
	Toilet	1	10.00	7.00	2.75	192.50	Cft
	Work Shop Area	1	27.38	22.75	2.50	1,556.95	Cft
					Total	1,999.45	Cft
						<b>Total</b>	<b>19.99</b> %Cft
	<b>Brick ballast</b>						
11	Dry rammed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.						
	Tool Floor	1	10.00	10.00	0.33	33.00	Cft
	Toilet	1	10.00	7.00	0.33	23.10	Cft
					Total	56.10	Cft
						<b>Total</b>	<b>0.56</b> %Cft
	<b>P.C.C</b>						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	Ratio 1: 2: 4						
	Toilet	1	10.00	7.00	0.17	11.67	Cft
						<b>Total</b>	<b>0.12</b> %Cft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Sub Base Course</b>						
13	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Work Shop Area	1	27.38	22.75	0.33	205.52	Cft
					<b>Total</b>	<b>2.06</b>	<b>%Cft</b>
	<b>Water Bound Macadam</b>						
14	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Work Shop Area	1	27.38	22.75	0.33	205.52	Cft
					<b>Total</b>	<b>2.06</b>	<b>%Cft</b>
15	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	For Tool Room b) 60-mm thick						
	Tool Floor	1	10.00	10.00		<b>100.00</b>	<b>Sft</b>
	Work Shop Area	1	27.38	22.75		<b>622.78</b>	<b>Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Ceramic Tile</b>						
16	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	1	10.00	7.00		70.00	Sft
						<b>Total</b>	<b>70.00 Sft</b>
17	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over 1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	2	10.00		7.00	140.00	Sft
		2	7.00		7.00	98.00	Sft
						<b>Total</b>	<b>238.00 Sft</b>
	<b>Slab Plaster</b>						
18	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)						
		1	10.00	10.00		100.00	Sft
		1	10.00	7.00		70.00	Sft
						<b>Total</b>	<b>1.70 %Sft</b>
	<b>Cement Plaster</b>						
19	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick Tool Room wall						
		2	10.00		10.50	210.00	Sft
		2	10.00		10.50	210.00	Sft
	Toilet						
		2	10.00		10.50	210.00	Sft
		2	7.00		10.50	147.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft
	W-1	-1	4.00		4.00	(16.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
						<b>Total</b>	<b>715.00 Sft</b>
						<b>Total</b>	<b>7.15 %Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Pointing</b>						
20	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:-						
	a) ratio 1:2						
	Outer Walls	1	62.00		14.00	868.00	Sft
					Total	868.00	Sft
					<b>Total</b>	<b>8.68</b>	<b>%Sft</b>
21	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.						
					<b>Total</b>	<b>8.68</b>	<b>%Sft</b>
	<b>Distempering</b>						
22	Distempering:-						
	iii) three coats						
	Tool Room wall						
		2	10.00		10.50	210.00	Sft
		2	10.00		10.50	210.00	Sft
	Toilet						
		2	10.00		10.50	210.00	Sft
		2	7.00		10.50	147.00	Sft
	Slab	1	10.00	10.00		100.00	Sft
		1	10.00	7.00		70.00	Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft
	W-1	-1	4.00		4.00	(16.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	885.00	Sft
					<b>Total</b>	<b>8.85</b>	<b>%Sft</b>
	<b>Wooden Door</b>						
23	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partial wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	3.50		7.00	24.50	Sft
	D-2	1	2.50		7.00	17.50	Sft
					<b>Total</b>	<b>42.00</b>	<b>Sft</b>
	<b>Lock</b>						
24	Providing and fixing, approved quality mortice lock.	2				<b>2.00</b>	<b>Each</b>
	<b>Paint</b>						
25	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii) Two coat				<b>Total</b>	<b>0.84</b>	<b>Sft</b>
	<b>Steel Window</b>						
26	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-						

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	b) fixed with wire gauze, 22 SWG						
	v) glass pane 5 mm thick						
	W-1	1	4.00		4.00	16.00	Sft
	V-1	1	2.00		2.00	4.00	Sft
					<b>Total</b>	<b>20.00</b>	<b>Sft</b>
	<b>Roof Insulation</b>						
27	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	225.00	1.00		225.00	Sft
					Total	225.00	Sft
					<b>Total</b>	<b>2.25</b>	<b>%Sft</b>
28	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)						
					<b>Total</b>	<b>225.00</b>	<b>Sft</b>
	<b>Khurras</b>						
29	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				<b>1.00</b>	<b>Each</b>
	<b>Bottom Khuras</b>						
30	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	1				<b>1.00</b>	<b>Each</b>
	<b>Parking Shed</b>						
31	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.						
		1	27.38	22.75		622.78	Sft
					<b>Total</b>	<b>622.78</b>	<b>Sft</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**WORK SHOP**

**PLUMBING WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Indian W.C</b>				
1	19-4-i	Providing and fitting glazed earthen ware water closet, squatter type (Orisa pattern), combined with foot rest.				
		i) white	Each	1.00	2,218.35	2,218
2	19-13-i	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete.				
		i) white	Each	1.00	2,649.35	2,649
3	19-7-i	Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc.				
		i) white, with pedestal	Each	1.00	5,169.95	5,170
5	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00	2,228.75	2,229
7	19-15	Providing and fixing, chromium plated soap dish.	Each	1.00	278.75	279
9	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	1.00	638.15	638
10	19-26	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	1.00	1,015.00	1,015
11	19-27	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	3.00	955.00	2,865
12	19-34-i	Providing and fixing, floor trap of cast iron, including concrete chamber all round, and C.I. grating:-				
		i) 10x5 cm (4"x2")	Each	1.00	627.95	628
13	19-36	Providing and fitting 10 cm (4") gully trap, including cement concrete, cost of PVC grating 15x15 cm (6"x6") and masonry chamber 30x30 cm (12"x12").	Each	1.00	1,096.85	1,097
14	19-35-ii	Providing and fitting "P" trap:-				
		ii) 10 cm (4") glazed.	Each	2.00	283.15	566

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PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>PPRC Pipe</b>				
15	23-47	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex/ Popular /Beta/ BBJ)with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge.(Internal / External Diameters mentioned).				
		<b>b) PN-20 pipe</b>				
		(ii) (3/4") 25 mm	Rft	50.00	66.50	3,325
		(iii) (1") 32 mm	Rft	50.00	106.90	5,345
		<b>Valve</b>				
16	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		ii) 3/4" dia	Each	1.00	1,434.00	1,434
		iii) 1" dia	Each	1.00	1,674.00	1,674
		<b>uPVC Pipe</b>				
17	19-47	Providing, fixing, testing and commissioning of μ-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(iii) 2"(60 mm)	Rft	10.00	88.45	885
		(v) 4"(110 mm)	Rft	50.00	217.25	10,863
		(vi) 6"(160 mm)	Rft	10.00	381.50	3,815



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SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
WORK SHOP						
PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>HDPE Tank</b>				
18	19/51	Providing and hoisting vertical /horizontal type storage tank of required capacity made of rotationally molded from (HDPE), double ply polyethelene of approved manufacturer i/c cost of making connection for inlet/outlet pipe, float valve i/c all cost of specials & labour complete in all respect as approved and directed by the Engineer Incharge.	P.Gln	200.00	106.60	21,320
		<b>Total Rs. (A)</b>				<b>68,014</b>
		<b>Non-Schedule Item</b>				
19	N.S	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	1.00	17,749.77	17,750
		<b>Total Rs. (B)</b>				<b>17,750</b>
		<b>Total Amount Rs. (A + B)</b>				<b>85,764</b>

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**DETAILED COST ESTIMATE**  
**WORK SHOP**  
**ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
<b><u>Scheduled Items (A)</u></b>						
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	300.00	81.70	24,510
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	400.00	94.60	37,840
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	900.00	25.70	23,130
4	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	600.00	40.75	24,450
5	C-24/10a.iv	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)	Rft.	300.00	53.80	16,140
6	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	14.00	270.60	3,788
7	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	2.00	372.35	745

PUNJAB CITIES PROGRAM (PCP)						
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS						
SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
WORK SHOP						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
8	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	8.00	87.35	699
9	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	2.00	112.00	224
10	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	10.00	149.80	1,498
11	C-24/102/a	Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas /G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		(a) Plastic body (ii) 12 " dia	Each	1.00	3,133.00	3,133
		<b>Sub Total (A)</b>				<b>136,157</b>
12	N.S	Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, complete in all respects	Each	1.00	1,215	1,215
13	N.S	Supply, installation and commissioning recessed 10W LED Down Light complete in all respects	Each	1.00	1,430	1,430
14	N.S	Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories complete in all respects	Each	6.00	35,035	210,210
15	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	1.00	7,000.00	7,000
		<b>Sub Total (B)</b>				<b>219,855</b>
		<b>Sub Total (A+B)</b>				<b>356,012</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**PARKING SHED (SIZE 120' x 32')**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	2.92	10,677.75	31,179
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	5,943.10	9.25	54,974
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	2.10	28,986.90	60,872
		<b>Concrete Work</b>				
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>In Foundation</b>				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type B (nominal mix 1: 2: 4)	P.Cft	700.00	457.75	320,425

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**PARKING SHED (SIZE 120' x 32')**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		(2) Type B (nominal mix 1: 1½: 3)	P.Cft	165.00	612.30	101,030
		<b>Steel Work.</b>				
5	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	49.45	31,784.50	1,571,744
		<b>Sand Filling</b>				
6	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	38.40	2,943.30	113,023
		<b>Sub Base Course</b>				
7	18/3/a/ (i) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	12.67	19,017.90	240,957

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**PARKING SHED (SIZE 120' x 32')**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Water Bound Macadam</b>				
8	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	12.67	26,489.72	335,625
		<b>Tuff Paver</b>				
9	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)	Per Sft	3,840.00	194.90	748,416
		c) 80-mm thick				
10	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	953.62	104.21	99,374
		<b>Parking Shed</b>				
11	N.S	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.	Sft	3,840.00	1,800.00	6,912,000
		<b>Total Amount Rs.</b>				<b>10,589,617</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**  
**PARKING SHED (SIZE 120' x 32')**  
**CALCULATION OF QUANTITIES**  
**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	10	8.50	7.50	4.58	2,919.75	Cft
					Total	2,919.75	Cft
					<b>Total</b>	<b>2.92</b>	<b>%oCft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Floor	1	120.00	32.00		3,840.00	Sft
	Columns	10	32.00	4.58		1,465.60	Sft
		10	8.50	7.50		637.50	Sft
					<b>Total</b>	<b>5,943.10</b>	<b>Sft</b>
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Columns	10	8.50	7.50	0.33	210.38	Cft
					Total	210.38	Cft
					<b>Total</b>	<b>2.10</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Concrete Work</b>						
4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>In Foundation</b>						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns	10	8.00	7.00	1.25	700.00	Cft
					<b>Total</b>	<b>700.00</b>	<b>Cft</b>
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	(2) Type B (nominal mix 1: 1½: 3)						
	Columns	10	1.50	2.00	5.50	165.00	Cft
					<b>Total</b>	<b>165.00</b>	<b>Cft</b>
	<b>Steel Work.</b>						
5	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					865.00	Cft
	Columns @ 12 lbs / Cft		12.00		=	10,380	lbs/cft
				<b>Total</b>	=	10,380	lbs/cft
				<b>Total</b>	=	4,710	Kg.
				Add 5% Wastage.	=	235	Kg.
				<b>Total</b>	=	<b>4,945</b>	<b>Kg</b>
				<b>Total</b>		<b>49.45</b>	<b>%kg</b>
	<b>Sand Filling</b>						
6	Supplying and filling sand under floor; or plugging in wells.						
	Shed	1	120.00	32.00	1.00	3,840.00	Cft
					<b>Total</b>	3,840.00	Cft
					<b>Total</b>	<b>38.40</b>	<b>%Cft</b>



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Sub Base Course</b>						
7	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Shed	1	120.00	32.00	0.33	1,267.20	Cft
					<b>Total</b>	<b>12.67</b>	<b>%Cft</b>
	<b>Water Bound Macadam</b>						
8	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Shed	1	120.00	32.00	0.33	1,267.20	Cft
					<b>Total</b>	<b>12.67</b>	<b>%Cft</b>
	<b>9</b>						
	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	Shed	1	120.00	32.00		<b>3,840</b>	<b>Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Parking Shed</b>						
10	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.	1	120.00	32.00		<b>3,840</b>	<b>Sft</b>

PUNJAB CITIES PROGRAM (PCP)						
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS						
SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
PARKING SHED (SIZE 120' x 32')						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		<b>Scheduled Items (A)</b>				
1	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	400.00	94.60	37,840
2	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit / G.I pipe / wooden strip batten/wooden casing an capping / G.I. wire/trenches (rate for cables only). (7.029)	Rft.	1,000.00	40.75	40,750
3	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	1.00	270.60	271
4	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	2.00	372.35	745
5	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	8.00	87.35	699
		<b>Sub Total (A)</b>				<b>80,304</b>
6	N.S	Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories complete in all respects	Each	8.00	35,035.00	280,280
		<b>Sub Total (B)</b>				<b>280,280</b>
		<b>Sub Total (A+B)</b>				<b>360,584</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**  
**DETAILED COST ESTIMATE**  
**PARKING SHED (SIZE 90' x 32')**  
**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Schedule Item</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	2.34	10,677.75	24,986
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	4,562.48	9.25	42,203
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	1.68	28,986.90	48,698
		<b>Concrete Work</b>				
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>In Foundation</b>				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type B (nominal mix 1: 2: 4)	P.Cft	560.00	457.75	256,340

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**SUPERVISION IN 16 CITIES OF PUNJAB**  
**DETAILED COST ESTIMATE**  
**PARKING SHED (SIZE 90' x 32')**  
**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		(2) Type B (nominal mix 1: 1½: 3)	P.Cft	132.00	612.30	80,824
		<b>Steel Work.</b>				
5	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	39.56	31,784.50	1,257,395
		<b>Sand Filling</b>				
6	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	28.80	2,943.30	84,767
		<b>Sub Base Course</b>				
7	18/3/a/ (i) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	9.50	19,017.90	180,670

**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**PARKING SHED (SIZE 90' x 32')**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Water Bound Macadam</b>				
8	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	9.50	26,489.72	251,652
		<b>Tuff Paver</b>				
9	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	2,880.00	194.90	561,312
10	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	762.89	104.21	79,499
		<b>Parking Shed</b>				
11	N.S	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.	Sft	2,880.00	1,800.00	5,184,000
		<b>Total Amount Rs.</b>				<b>8,052,346</b>

<b>PUNJAB CITIES PROGRAM (PCP)</b> <b>DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS</b> <b>SUPERVISION IN 16 CITIES OF PUNJAB</b> <b>PARKING SHED (SIZE 90' x 32')</b> <b>CALCULATION OF QUANTITIES</b> <b>CIVIL WORK</b>							
Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	8	8.50	7.50	4.58	2,335.80	Cft
					Total	2,335.80	Cft
					<b>Total</b>	<b>2.34</b>	<b>%Cft</b>
	<b>Anti-Termite</b>						
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Floor	1	90.00	32.00		2,880.00	Sft
	Columns	8	32.00	4.58		1,172.48	Sft
		8	8.50	7.50		510.00	Sft
					Total	4,562.48	Sft
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Columns	8	8.50	7.50	0.33	168.30	Cft
					Total	168.30	Cft
					<b>Total</b>	<b>1.68</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Concrete Work</b>						
4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>In Foundation</b>						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns	8	8.00	7.00	1.25	560.00	Cft
					<b>Total</b>	<b>560.00</b>	<b>Cft</b>
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	(2) Type B (nominal mix 1: 1½: 3)						
	Columns	8	1.50	2.00	5.50	132.00	Cft
					<b>Total</b>	<b>132.00</b>	<b>Cft</b>
	<b>Steel Work.</b>						
5	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					692.00	Cft
	Columns @ 12 lbs / Cft		12.00		=	8,304	lbs/cft
					<b>Total</b>	<b>8,304</b>	<b>lbs/cft</b>
					<b>Total</b>	<b>3,768</b>	<b>Kg.</b>
					Add 5% Wastage.	<b>188</b>	<b>Kg.</b>
					<b>Total</b>	<b>3,956</b>	<b>Kg</b>
					<b>Total</b>	<b>39.56</b>	<b>%kg</b>
	<b>Sand Filling</b>						
6	Supplying and filling sand under floor; or plugging in wells.						
	Shed	1	90.00	32.00	1.00	2,880.00	Cft
					<b>Total</b>	<b>2,880.00</b>	<b>Cft</b>



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
						<b>Total</b>	<b>28.80</b> %Cft
	<b>Sub Base Course</b>						
7	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Shed	1	90.00	32.00	0.33	950.40	Cft
						<b>Total</b>	<b>9.50</b> %Cft
	<b>Water Bound Macadam</b>						
8	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Shed	1	90.00	32.00	0.33	950.40	Cft
						<b>Total</b>	<b>9.50</b> %Cft
9	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	c) 80-mm thick						
	Shed	1	90.00	32.00		<b>2,880</b>	<b>Sft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Parking Shed</b>						
10	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.	1	90.00	32.00		<b>2,880</b>	<b>Sft</b>

PUNJAB CITIES PROGRAM (PCP)						
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS						
SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
PARKING SHED (SIZE 72' x 32')						
ELECTRICAL WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		<b>Scheduled Items (A)</b>				
1	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	300.00	94.60	28,380
2	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	750.00	40.75	30,563
3	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	1.00	224.75	225
4	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	2.00	372.35	745
5	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	6.00	87.35	524
		<b>Sub Total (A)</b>				<b>61,005</b>
6	N.S	Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories complete in all respects	Each	6.00	35,035	210,210
		<b>Sub Total (B)</b>				<b>210,210</b>
		<b>Sub Total (A+B)</b>				<b>271,215</b>

**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**  
**DETAILED COST ESTIMATE**  
**WASHING PIT**  
**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.96	10,677.75	10,251
		<b>Sand Filling</b>				
2	7/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	1.12	2,943.30	3,296
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(c) Ratio 1: 1½: 3	100 Cft	0.57	43,876.50	25,010
		(f) Ratio 1: 2: 4	100 Cft	0.15	38,178.90	5,727
		(i) Ratio 1: 4: 8	100 Cft	1.12	28,986.90	32,465
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:4	100 Cft	11.04	30,280.30	334,295
		<b>Plaster</b>				
5	11/8/b	Cement plaster 1:3 upto 20' (6.00 m) height:-				
		b) ½" (13 mm) thick	100 Sft	3.32	3,424.50	11,369
		<b>Mosaic flooring</b>				
6	10/22/a	1½"(40 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1"(25 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :-				
		(a) using grey cement	100 Sft	0.88	19,573.00	17,224

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**DETAILED COST ESTIMATE**

**WASHING PIT**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Mosaic dado or skirting</b>				
7	10/37	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:				
		(a) using grey cement:				
		ii) ½"(13 mm) thick	100 Sft	3.32	20,965.90	69,607
8	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	167.22	104.21	17,426
		<b>Total Amount Rs.</b>				<b>526,670</b>

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**SUPERVISION IN 16 CITIES OF PUNJAB**  
**WASHING PIT**  
**CALCULATION OF QUANTITIES**  
**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Washing Pit	1	35.00	9.67	2.83	958.93	Cft
						<b>Total</b>	<b>0.96 %Cft</b>
2	Supplying and filling sand under floor; or plugging in wells.	1	35.00	9.67	0.33	111.69	Cft
						<b>Total</b>	<b>1.12 %Cft</b>
	<b>Plain Cement Concrete</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(c) Ratio 1: 1½: 3	2	35.00	3.25	0.25	56.88	Cft
						<b>Total</b>	<b>0.57 %Cft</b>
	(f) Ratio 1: 2: 4	1	35.00	2.50	0.17	14.58	Cft
						<b>Total</b>	<b>0.15 %Cft</b>
	(i) Ratio 1: 4: 8						
	Washing Pit	1	35.00	9.67	0.33	111.69	Cft
						<b>Total</b>	<b>1.12 %Cft</b>
	<b>Brick work in Foundation</b>						
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:4						
	<b>Washing Pit</b>						
	Step - 1	1	9.00	1.875	0.50	8.44	Cft
	Step - 2	1	9.00	1.500	0.50	6.75	Cft
	Step - 3	1	9.00	1.125	5.50	55.69	Cft
	Side walls	2	19.00	3.250	6.00	741.00	Cft
		2	15.00	3.250	3.00	292.50	Cft
						<b>Total</b>	<b>1,104.38 Cft</b>
						<b>Total</b>	<b>11.04 %Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Plaster</b>						
5	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick						
	Wall	1	2.50		5.50	13.75	Sft
	Side Wall	2	19.00		6.00	228.00	Sft
		2	15.00		3.00	90.00	Sft
					Total	331.75	Sft
					<b>Total</b>	<b>3.32</b>	<b>%Sft</b>
	<b>Mosaic flooring</b>						
6	1½"(40 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1"(25 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :- (a) using grey cement	1	35.00	2.50		87.50	Sft
						<b>Total</b>	<b>0.88</b> %Sft
	<b>Mosaic dado or skirting</b>						
7	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:						
		1	2.50		5.50	13.75	Sft
		2	19.00		6.00	228.00	Sft
		2	15.00		3.00	90.00	Sft
					Total	331.75	Sft
					<b>Total</b>	<b>3.32</b>	<b>%Sft</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**  
**DETAILED COST ESTIMATE**  
**PUMP PAD**  
**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.01	10,677.75	107
		<b>Plain Cement Concrete</b>				
2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.03	28,986.90	870
		<b>Concrete Work</b>				
3	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		<b>In Foundation</b>				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	P.Cft	8.00	457.75	3,662
		<b>Steel Work.</b>				
4	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	0.30	31,784.50	9,535



**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**PUMP PAD**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
5	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	9.88	104.21	1,030
<b>Total Amount Rs.</b>						<b>15,204</b>

**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**

**PUMP PAD**

**CALCULATION OF QUANTITIES**

**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Pump Pad	1	2.50	2.50	1.00	6.25	Cft
						<b>Total</b>	<b>0.01 %oCft</b>
	<b>Plain Cement Concrete</b>						
2	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Pump Pad	1	2.50	2.50	0.50	3.13	Cft
						Total	3.13 Cft
						<b>Total</b>	<b>0.03 %oCft</b>
	<b>Concrete Work</b>						
3	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>In Foundation</b>						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
		1	2.00	2.00	2.00	8.00	Cft
						<b>Total</b>	<b>8.00 Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Steel Work.</b>						
4	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					8.00	Cft
	Pad @ 8 lbs / Cft		8.00		=	64.00	lbs/cft
				Total	=	64.00	lbs/cft
				Total	=	29.04	Kg.
			Add 5% Wastage.		=	1.45	Kg.
				<b>Total</b>	=	<b>30</b>	<b>Kg</b>
					<b>Total</b>	<b>0.30</b>	<b>%kg</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**  
**DETAILED COST ESTIMATE**  
**SEPTIC TANK**  
**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.71	10,677.75	7,581
		<b>Plain Cement Concrete</b>				
2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(f) Ratio 1: 2: 4	100 Cft	0.34	38,178.90	12,981
		(i) Ratio 1: 4: 8	100 Cft	0.55	28,986.90	15,943
		<b>Brick work</b>				
3	7/7/i	Pacca brick work other than building upto 10ft. (3 m)				
		Ratio 1:3	100 Cft	4.21	32,796.10	138,072
		<b>Concrete Work</b>				
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	50.63	556.50	28,173

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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**SEPTIC TANK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Steel Work.</b>				
5	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	1.27	31,784.50	40,227
		<b>Cement Pointing</b>				
6	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:-				
		a) ratio 1:2	100Sft	5.19	3,518.35	18,260
		<b>RCC Manhole Cover</b>				
7	21/16	Providing and fixing 6" thick R.C.C. manhole cover with tee shaped C.I. frame of 22" I/d (frame weighing 37.324 Kg. or one maund as per Standard Drawing STD/PD No. 6, of 1977, complete in all respect.	Each	2.00	15,106.30	30,213
		<b>Angle Iron Step</b>				
8	21/13	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	14.00	590.60	8,268
9	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	126.59	104.21	13,192
		<b>Total Amount Rs.</b>				<b>312,910</b>

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**SUPERVISION IN 16 CITIES OF PUNJAB**  
**SEPTIC TANK**  
**CALCULATION OF QUANTITIES**  
**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Septic tank	1	13.50	7.50	7.00	708.75	Cft
					Total	708.75	Cft
					<b>Total</b>	<b>0.71</b>	<b>%Cft</b>
	<b>Plain Cement Concrete</b>						
2	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(f) Ratio 1: 2: 4</b>	3	3.75	6.00	0.50	33.75	Cft
					Total	33.75	Cft
					<b>Total</b>	<b>0.34</b>	<b>%Cft</b>
	<b>(i) Ratio 1: 4: 8</b>						
	Septic tank	3	3.75	6.00	0.33	22.50	Cft
	Outer Wall	1	39.00	2.00	0.33	26.00	Cft
	Baffle wall	2	6.00	1.50	0.33	6.00	Cft
					Total	54.50	Cft
					<b>Total</b>	<b>0.55</b>	<b>%Cft</b>
	<b>Brick work</b>						
3	Pacca brick work other than building upto 10ft. (3 m)						
	<b>Ratio 1:3</b>						
	Outer wall	1	39.00	1.88	0.50	36.56	Cft
		1	39.00	1.50	0.50	29.25	Cft
		1	39.00	1.13	0.50	21.94	Cft
		1	39.00	0.75	9.00	263.25	Cft
	Baffle wall	2	6.00	1.13	0.50	6.75	Cft
		2	6.00	0.75	7.00	63.00	Cft
					Total	420.75	Cft
					<b>Total</b>	<b>4.21</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
<b>Concrete Work</b>							
4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)	1	13.50	7.50	0.50	<b>50.63</b>	<b>Cft</b>
<b>Steel Work.</b>							
5	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)		2.50 kg/cft			126.56	Kg
					<b>Total</b>	<b>1.27</b>	<b>%Kg</b>
<b>Cement Pointing</b>							
6	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:-						
	a) ratio 1:2	1	39.00		9.00	351.00	Sft
		4	6.00		7.00	168.00	Sft
					<b>Total</b>	<b>519.00</b>	<b>Sft</b>
					<b>Total</b>	<b>5.19</b>	<b>%Sft</b>
<b>RCC Manhole Cover</b>							
7	Providing and fixing 6" thick R.C.C. manhole cover with tee shaped C.I. frame of 22" I/d (frame weighing 37.324 Kg. or one maund as per Standard Drawing STD/PD No. 6, of 1977, complete in all respect.						
		2				<b>2.00</b>	<b>Nos.</b>
<b>Angle Iron Step</b>							
8	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.						
		14				<b>14.00</b>	<b>Nos.</b>

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**SUPERVISION IN 16 CITIES OF PUNJAB**

**DETAILED COST ESTIMATE**

**EXTERNAL WORK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>BOUNDARY WALL</b>				
		<b>Excavation</b>				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.12	10,677.75	1,281
		<b>Anti-Termite</b>				
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	168.00	9.25	1,554
		<b>Plain Cement Concrete</b>				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.16	28,986.90	4,638
		<b>Brick work in Foundation</b>				
4	7/4/i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5	100 Cft	0.27	30,280.30	8,176
		<b>Brick work in Super Structure</b>				
5	7/5	Pacca brick work in ground floor:- i) Cement, sand mortar:- Ratio 1:5	100 Cft	15.77	31,510.10	496,914
		<b>Concrete Work</b>				
6	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				



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**DETAILED COST ESTIMATE**

**EXTERNAL WORK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>In Foundation</b>				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	P.Cft	36.75	457.75	16,822
		<b>Above foundation</b>				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	52.36	556.50	29,138
		<b>Steel Work.</b>				
7	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	5.09	31,784.50	161,783
		<b>Cement Plaster</b>				
8	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick	100 Sft	54.00	4,379.60	236,498
		<b>Pointing</b>				
9	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- a) ratio 1:2	100 Sft	20.25	3,518.35	71,247
10	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	20.25	652.50	13,213
		<b>Distempering</b>				
11	11/23	Distempering:- iii) three coats	100 Sft	54.00	1,295.00	69,930
		<b>Main Gate</b>				
12	25/30	Making and fixing steel grated doors, complete with locking arrangement, angle iron frame 2"x2"x3/8" (50x50x10 mm) and 3/4" (20 mm) square bars 4" (100 mm) centre to centre.	Sft	120.00	1,928.45	231,414

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**DETAILED COST ESTIMATE**

**EXTERNAL WORK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Painting new surface:-</b>				
13	13/5/d	d) Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:-				
		i) priming coat.	100 Sft	2.40	824.15	1,978
		ii) each subsequent coat of paint.	100 Sft	2.40	490.55	1,177
		<b>Razor Wire</b>				
14	26/46	Providing and fixing anti climb high security galvanized razor cut wire having double sharp four U-shaped pointed 0.5 mm thick ( 22mmx15 mm barbs) spaced @ 33 mm c/c clad over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16" embeded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizontally with angle iron posts , binding wire, painting of posts, etc. complete in all respects as pproved and directed by the Engineer incharge.				
		(ii) 18 " diameter	Rft	675.00	500.00	337,500
15	1/1 Rate Analysis	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.	Cft	93.58	104.21	9,752
16	N.S	Removing of Gate.	Provisio nal Sum	1.00	2,500.00	2,500
		<b>Total Rs. "A"</b>				<b>1,695,516</b>

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**DETAILED COST ESTIMATE**

**EXTERNAL WORK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Tuff Paver</b>				
		<b>Dismantling</b>				
15	3/29	Dismantling brick or flagged flooring without concrete foundation.	100Sft	23.00	863.50	19,861
		<b>Borrow Earth</b>				
16	3/5/i + 3/17	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.	1000Cft	36.74	17,222.30	632,747
		<b>Sub Base Course</b>				
17	18/3/a/ (i) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	60.62	19,017.90	1,152,865
		<b>Water Bound Macadam</b>				
18	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100Cft	60.62	26,489.72	1,605,807

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**DETAILED COST ESTIMATE**

**EXTERNAL WORK**

**CIVIL WORK**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Tuff Paver</b>				
19	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	18,370.00	194.90	3,580,313
20	3/32	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).	100 Sft	6.85	1,693.10	11,598
		<b>Deduction</b>				
		Deduction of used bricks from original quantity.	1000 No.	11.64	4,200.00	(48,904)
		<b>Total Rs. "B"</b>				<b>6,954,286</b>
		<b>Total Rs. "A+B"</b>				<b>8,649,802</b>

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**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**  
**EXTERNAL WORK**  
**CALCULATION OF QUANTITIES**  
**CIVIL WORK**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
<b>Excavation</b>							
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	3	4.00	4.00	2.50	120.00	Cft
					Total	120.00	Cft
					<b>Total</b>	<b>0.12</b>	<b>%Cft</b>
<b>Anti-Termite</b>							
2	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin / Ms Hextar or equivalent @ specified suspension concentrater (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Columns	3	16.00	2.50		120.00	Sft
		3	4.00	4.00		48.00	Sft
					Total	<b>168.00</b>	<b>Sft</b>
<b>Plain Cement Concrete</b>							
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	<b>(i) Ratio 1: 4: 8</b>						
	Columns	3	4.00	4.00	0.33	15.84	Cft
					Total	15.84	Cft
					<b>Total</b>	<b>0.16</b>	<b>%Cft</b>
<b>Brick work in Foundation</b>							
4	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:5						
	Gate Columns	3	6.50	0.38	3.67	26.84	Cft
					Total	26.84	Cft
					<b>Total</b>	<b>0.27</b>	<b>%Cft</b>

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Brick work in Super Structure</b>						
5	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Boundary	1	675.00	0.75	3.00	1,518.75	Cft
	Gate Columns	3	6.50	0.38	8.00	58.50	Cft
					Total	1,577.25	Cft
					<b>Total</b>	<b>15.77</b>	<b>%Cft</b>
	<b>Concrete Work</b>						
6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	<b>In Foundation</b>						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Gate Columns	3	3.50	3.50	1.00	36.75	Cft
					Total	36.75	Cft
	<b>Above foundation</b>						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Gate Columns	3	1.25	1.25	11.17	52.36	Cft
					Total	52.36	Cft
	<b>Steel Work.</b>						
7	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					89.11	Cft
	Columns @ 12 lbs / Cft		12.00		=	1,069.31	lbs/cft
				Total	=	1,069.31	lbs/cft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
				Total	=	485.17	Kg.
				Add 5% Wastage.	=	24.26	Kg.
				<b>Total</b>	=	<b>509</b>	<b>Kg</b>
				<b>Total</b>		<b>5.09</b>	<b>%kg</b>
	<b>Cement Plaster</b>						
8	Cement plaster 1:4 upto 20' (6.00 m) height:- 3/4" (20 mm) thick						
	Boundary	1	675.00		8.00	5,400.00	Sft
					Total	5,400.00	Sft
				<b>Total</b>		<b>54.00</b>	<b>%Sft</b>
	<b>Pointing</b>						
9	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- a) ratio 1:2						
	Outer Walls	1	675.00		3.00	2,025.00	Sft
					Total	2,025.00	Sft
				<b>Total</b>		<b>20.25</b>	<b>%Sft</b>
10	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.						
					<b>Total</b>	<b>20.25</b>	<b>%Sft</b>
	<b>Distempering</b>						
11	Distempering:- iii) three coats						
	Boundary	1	675		8.00	5,400.00	Sft
					Total	5,400.00	Sft
				<b>Total</b>		<b>54.00</b>	<b>%Sft</b>
	<b>Main Gate</b>						
12	Making and fixing steel grated doors, complete with locking arrangement, angle iron frame 2"x2"x3/8" (50x50x10 mm) and 3/4" (20 mm) square bars 4" (100 mm) centre to centre.	1	20.00		6.00	120.00	Sft
	<b>Painting new surface:-</b>						
13	d) Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:-						
	i) priming coat.					2.40	%Sft
	ii) each subsequent coat of paint.					2.40	%Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Razor Wire</b>						
14	Providing and fixing anti climb high security galvanized razor cut wire having double sharp four U-shaped pointed 0.5 mm thick ( 22mmx15 mm barbs) spaced @ 33 mm c/c clad over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16" embeded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizontally with angle iron posts , binding wire, painting of posts, etc. complete in all respects as pproved and directed by the Engineer incharge.						
	(ii) 18 " diameter	1	675			<b>675.00</b>	<b>Rft</b>
	<b>Tuff Paver</b>						
	<b>Dismantling</b>						
15	Dismantling brick or flagged flooring without concrete foundation.						
		1	230	10.00		2,300	Sft
					<b>Total</b>	<b>23.00</b>	<b>%Sft</b>
	<b>Borrow Earth</b>						
16	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.		Area				
	Parking Area	1	18,370	1.00	2.00	36,740	Cft
					Total	36,740	Cft
					<b>Total</b>	<b>36.74</b>	<b>%oCft</b>
	<b>Sub Base Course</b>						
17	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Parking Area	1	18,370	1.00	0.33	6,062.10	Cft
					<b>Total</b>	<b>60.62</b>	<b>%Cft</b>



Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	<b>Water Bound Macadam</b>						
18	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)						
	Parking Area	1	18,370	1.00	0.33	6,062.10	Cft
						<b>Total</b>	<b>60.62</b> %Cft
	<b>Tuff Paver</b>						
19	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	c) 80-mm thick	1	18,370	1.00		18,370	Sft
						<b>Total</b>	<b>183.70</b> %Sft
20	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).						
		1	685	1.00		685	Sft
						<b>Total</b>	<b>6.85</b> %Sft

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SUPERVISION IN 16 CITIES OF PUNJAB						
DETAILED COST ESTIMATE						
EXTERNAL WORKS						
PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<b>Excavation</b>				
1	3/44	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000Cft	3.83	7,622.75	29,157
		<b>PPRC Pipe</b>				
2	23-47	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex/ Popular /Beta/ BBJ)with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge.(Internal / External Diameters mentioned).				
		<b>b) PN-20 pipe</b>				
		(iii) (1") 32 mm	Rft	100.00	106.90	10,690
		(iv) (1-1/4") 40 mm	Rft	350.00	161.30	56,455
		<b>Valve</b>				
3	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		iii) 1" dia	Each	2.00	1,674.00	3,348
		v) 1-1/2" dia	Each	2.00	2,130.00	4,260
		<b>uPVC Pipe</b>				
4	19/47	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(vi) 6"(160 mm)	Rft	400.00	420.65	168,260

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**DETAILED COST ESTIMATE**

**EXTERNAL WORKS**

**PLUMBING WORKS**

<b>Sr. No.</b>	<b>2nd BI-Annual-2022 (July to Dec) Toba tek singh</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (Rs)</b>	<b>Amount (Rs)</b>
5	N.S	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	5.00	17,749.77	88,749
		<b>Ejector Pump</b>				
6	23/45/ii	P/F Ejector Pump of specified Suction and Delivery heads, coupled with Single Phase Seimen Electric Motor of required rating for water supply i/c the cost of connection charges, necessary wire, PVC pipes etc complete in all respect as approved and directed by the Engineer Incharge.				
		ii) G-IV (2-1/2"x2") with 2.5 HP Electric Motor, 38-Mtr Suction and 38 M delivery head	Each	1.00	17,905.90	17,906
		<b>Boring</b>				
7	23/1	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete:-				
		c) 5" (125 mm) i/d	Rft	100.00	581.05	58,105
8	23/2	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft. (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete:-				
		a) 5" (125 mm) i/d	Rft	100.00	973.80	97,380
9	23/16	Providing and installing P.V.C. blind pipe, B.S.S. Class 'B', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
		b) 4" i/d (100 mm)	Rft	50.00	483.60	24,180
10	23/17	Providing and installing P.V.C. blind pipe, B.S.S. Class 'D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
		b) 1 1/2" i/d (40 mm)	Rft	200.00	158.25	31,650
		c) 2" i/d (50 mm)	Rft	70.00	230.00	16,100

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EXTERNAL WORKS						
PLUMBING WORKS						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
11	23/11	Providing and installing, P.V.C. strainer B.S.S. Class 'B', in tubewell bore hole, including sockets and solvents, etc. complete:- a) 3" i/d (75 mm)	Rft	30.00	174.70	5,241
12	23/14	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:- a) B.S.S. Class `B' i) 3" i/d (75 mm)	Rft	1.00	86.25	86
		<b>Booster Pump</b>				
13	N.S	Providing, installing, Fixing and commisioning of reciprocating pump with a capacity of 30 USGPM against a total head of 90 ft Cast Iron, Cylinder & Piston Rod in S.S., Crank Shaft in super finish S.G. Iron, Gland Nut in Brass and abrasion proof silently working Valves fitted on easily Feat accessible S.S., ABS or Cast Iron Valve Plate with Brass Seats, All Gaskets are in Rubber and Rocker Rail in Galvanized Mild Steel with Insulation Bushes complete system installed upto satisfaction of engineer in charge, complete in all respects	Each	1.00	20,000	20,000
		<b>Total Rs</b>				<b>631,567</b>

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EXTERNAL WORKS							
PLUMBING WORKS							
Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
	<b>Excavation</b>						
1	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.						
	Water supply Pipe+Drainage pipe	1	850.00	1.50	3.00	3,825.00	Cft
					<b>Total</b>	<b>3.83</b>	<b>%oCft</b>
	<b>PPRC Pipe</b>						
2	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex/ Popular /Beta/ BBJ)with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge.(Internal / External Diameters mentioned).						
	<b>b) PN-20 pipe</b>						
	(iii) (1") 32 mm	1	100.00			<b>100.00</b>	<b>Rft</b>
	(iv) (1-1/4") 40 mm	1	350.00			<b>350.00</b>	<b>Rft</b>
	<b>Valve</b>						
3	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.						
	iii) 1" dia	2				<b>2.00</b>	<b>Nos.</b>
	v) 1-1/2" dia	2				<b>2.00</b>	<b>Nos.</b>
	<b>uPVC Pipe</b>						
4	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge						
	Type (SDR 41/SN-4)						
	(vi) 6"(160 mm)	1	400.00			<b>400.00</b>	<b>Rft</b>

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**EXTERNAL WORKS**

**PLUMBING WORKS**

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
5	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	5				<b>5.00</b>	<b>Nos.</b>

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**EXTERNAL ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
<b>Scheduled Items (A)</b>						
<b>Excavation</b>						
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
<b>a) By Manual</b>						
		ii) in ordinary soil.	%oCft	3.62	10,677.75	38,632
<b>RCC Foundation for Poles</b>						
2	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		3) Type C (nominal mix 1: 2: 4)	Cft	168.00	457.75	76,902
<b>Steel Work</b>						
3	6/12/b	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		(b) Deformed bars (Grade-40)	100Kg	4.20	31,394.70	131,858
4	24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	300.00	40.75	12,225

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**EXTERNAL ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
5	24/6	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
		i) 50 mm i/d	Rft	1,150.00	185.85	213,728
6	24/12	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-				
		ii) 6 mm sq (7/0.044")	Rft	700.00	117.70	82,390
		iv) 16 mm sq (7/0.064")	Rft	100.00	173.95	17,395
7	24/13/c	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-				
		a) PVC insulated, PVC sheathed twin core, 250/440 volts.				
		v) 7/1.12 mm (7/0.044")	Rft	950.00	160.20	152,190
		vi) 7/1.63 mm (7/0.064")	Rft	50.00	306.30	15,315
		b) PVC insulated, PVC sheathed 3 core, 600/1000 volt cable:-				
		v) 7/1.12 mm (7/0.044")	Rft	200.00	246.85	49,370
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	350.00	523.85	183,348
8	24/68	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tapered from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.				
		a) Single Arm				
		(i) 10 mtr height	Each	5.00	106,229.10	531,146
		b) Double Arm				
		(i) 10 mtr height	Each	2.00	109,871.10	219,742



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**EXTERNAL ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
9	24/69/c	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 66 & IK 08 or above Philips / Osram / Thorn or equivalent with corrosion resistant die casted Aluminum housing, silicon gasket in special groove, UV stable & scratch resistant synthetic materials, thermally hardened glass complete with LED Chip (Philips Lumiled / Cree / Nichia / Osram make or equivalent), programmable LED driver (Harvard/ TCI / Lumotech / Philips / VOSSLOH Schwabe / Lightech make or equivalent), minimum 10kV surge protection rating i/c the cost of all accessories / components required for proper operation, fully flexible for future upgradation and easy replacements for maintenance purposes, bucket elevator charges as approved and directed by the Engineer Incharge.				
		c) 120 Lm/Watt				
		(v) 90 Watt with 10800 Lumens	Each	9.00	51,675.00	465,075
10	24/77	Supply and erection of electric energy meter, including meter testing fee, etc.				
		b) three phase, 4 wires:				
		iii) 3x80 Amp, 400 volts	Each	1.00	14,659.25	14,659
11	24/86	Suppling,Installation and comissioning of MCB (Miniature Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY /SIEMEN GERMAN/TERASAKI JAPAN/ ABB SWITZERLAND in prelaid DBs and Panels i/c the cost of screwes,necessary wire complete in all respect as approved and directed by the Engineer Incharge.				
		<b>a) Single Pole</b>				
		<b>(ii) 6-40 Amp (6 KA)</b>				
		DB-WS, Office & Store	Each	12.00	1,101.75	13,221
		DB-Guard Room & Shed x2	Each	6.00	1,101.75	6,611
		LCP Ext	Each	8.00	1,101.75	8,814
		<b>b) Double Pole</b>				
		<b>(ii) 6-40 Amp (6 KA)</b>				
		DB-WS, Office & Store	Each	1.00	3,351.75	3,352
		DB-Guard Room & Shed x2	Each	1.00	3,351.75	3,352

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**DETAILED COST ESTIMATE**

**EXTERNAL ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		LCP Ext	Each	3.00	3,351.75	10,055
		MDB	Each	1.00	3,351.75	3,352
		<b>c) Tripple Pole</b>				
		<b>(iii) 6-63 Amp (10 KA)</b>				
		MP Board all DBs	Each	10.00	10,263.00	102,630
12	24/88	Supplying, Installation and commissioning of MCCB (Moulded Case Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY / TERASAKI JAPAN/ABB SWITZERL(with adjustable Thermal-Magnetic Trip ) in prelaid DBs and Panels i/c the cost of screws, necessary wire complete in all respect as approved and directed by the Engineer Incharge				
		a) Tripple Pole With Adjustable Thermal-Magnetic Trip /Electronic Trip (60-100%)				
		(i) 25-100 Amp(25 KA)				
		MPB	Each	1.00	26,853.00	26,853
13	24/90	P/F wall mounted DB (Distribution Board) made with 16SWG Sheet (Recessded/Surface mounted Type), Powder coated Paint, i/c the cost of Lock, Indication lights,Thimble, Copper Comb, Wiring, Netural & Earth Bar, Door Earthing, Digital Voltmeter, Digital Ammeter,Volt Selector Switch, Ammeter selector switch,Current Transformers and Controles Complete in all respect as approved and directed by the Engineer Incharge (Breakers will be Paid Separately).				
		(a) 6" deep				
		(i) 20~60A (18"x24"x6")				
		DB-WS, Office & Store	Cft	1.50	18,634.45	27,952
		DB-Guard Room & Shed x2	Cft	1.50	18,634.45	27,952
		LCP Ext	Cft	1.50	18,634.45	27,952
		MPB	Cft	1.50	18,634.45	27,952

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**EXTERNAL ELECTRICAL WORKS**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
14	24/105/iii	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge				
		(iii) 25 KVA	Each	1.00	329,487.70	329,488
15	24/70	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	Job	10.00	9,592.65	95,927
16	24/72	Bonding to earth with wire on surface, including cost of wire, clamps, thimbles, etc.				
		a) G.I. wire:				
		i) 8 SWG	Rft	100.00	23.25	2,325
<b>Sub Total Scheduled Items: (A)</b>						<b>2,921,759</b>
<b>Non Schedule Part-B</b>						
17	N.S.	Supply, installation, testing, and comissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.				
		i) Direct of Line (DOL) Starter for 3kW Motor	Set	1.00	56,200	56,200
		ii) Automatic Star Delta Starter ASDS for 7.5kW Motor	Set	1.00	74,220	74,220
18	N.S.	Shifting of light pole	Each	3.00	50,000	150,000
<b>Total Cost (Part B)</b>					<b>Rs.</b>	<b>280,420</b>
<b>Grand Total (Part A + Part B)</b>					<b>Rs.</b>	<b>3,202,179</b>

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<b>DETAILED COST ESTIMATE</b>					
<b>ENVIRONMENTAL HEALTH &amp; SAFETY COST</b>					
Sr No	Description	Unit	Quantity	Unit Rate (Rs.)	Amount Rs.
<b>Labor Safety</b>					
1	Face Masks (3 PLY) Box	Nos	10.00	700.00	7,000
2	Safety Gum Shoes	Nos	15.00	1,350.00	20,250
3	Hand Gloves	Nos	15.00	245.00	3,675
4	First Aid Box (Including essential Medicine)	Nos	1.00	5,000.00	5,000
5	Safety Hard Helmets MSA	Nos	15.00	2,000.00	30,000
6	Safety Goggles	Nos	15.00	550.00	8,250
7	Reflective Safety Vests	Nos	15.00	550.00	8,250
				<b>Sub Total</b>	<b>82,425</b>
<b>Working Site Safety</b>					
1	Reflective Safety Signs Boards	Nos	2.00	10,000.00	20,000
2	Reflective Safety Barricading Tape	Nos	2.00	1,500.00	3,000
3	Fire Extinguishers DCP	Nos	1.00	7,000.00	7,000
				<b>Sub Total</b>	<b>30,000</b>
<b>Total Amount (Rs)</b>					<b>112,425</b>

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Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Lead	Unit.	Qty	Rate (Rs)	Amount (Rs)
1	3/5/i	Earthwork in ordinary soil for embankments lead upto 100 ft. (30 m), including ploughing and mixing with blade grade or disc harrow or other suitable equipment, and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- i) 95% to 100% maximum modified AASHO dry density.	1	1000Cft	1	9,527.90	9,527.90
2	3/17a.b.c	<b>Carriage</b> upto ¼ mile (400 m). for every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.) for every ¼ mile (400 m) additional lead or part thereof, beyond one mile (1.6 Km.) upto 5 mile (8 Km.) for every ½ mile (800 m) additional lead or part thereof, beyond 5 miles (8 Km).	1	1000 Cft	1	4,248.00	4,248.00
			12	1000 Cft	1	47.50	570.00
			8.5	1000 Cft	1	338.40	2,876.40
			0	1000 Cft	1	320.35	-
		<b>Total Amount I,000 (Rs.).</b>					<b>17,222.30</b>
		<b>Total Amount Per Cft</b>					<b>17.22</b>

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**Rate Analysis - 2**

<b>Description</b>							
Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha quarry to site, actual compacted depth shall be considered for payment)							
<b>Crush Stone</b>							
<b>Sr. No.</b>	<b>2nd BI-Annual-2022 (July to Dec) Toba tek singh</b>	<b>Description</b>	<b>Unit</b>	<b>Lead (Km)</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>1</b>		<b>Material</b>					
	18-3 a(i)	Pit run or bed run gravel.	100 Cft	1	1	6,513.00	6,513.00
<b>2</b>		<b>Carriage</b>					
	1/1	1st KM	100 Cft	1	1.2	299.40	359.28
		2nd KM	100 Cft	1	1.2	145.25	174.30
		3rd KM	100 Cft	1	1.2	116.85	140.22
		4th KM	100 Cft	1	1.2	85.30	102.36
		5th KM	100 Cft	1	1.2	80.20	96.24
		6th KM	100 Cft	1	1.2	79.00	94.80
		7th KM	100 Cft	1	1.2	74.25	89.10
		8th KM	100 Cft	1	1.2	73.50	88.20
		9th KM	100 Cft	1	1.2	69.55	83.46
		10th KM	100 Cft	1	1.2	65.70	78.84
		From 11 km to 200 km	100 Cft	163.00	1.2	57.25	11,198.10
		<b>Total.</b>					<b>19,017.90</b>
		<b>Total Amount per 100 Cft</b>					<b>19,017.90</b>
		<b>Total cast for Per Cft</b>					<b>190.18</b>

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**Rate Analysis - 3**

Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)

Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs.)
1	18/4(a)	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100 Cft		1	13,776.40	13,776.40
2	1/1	Carriage of 100 cft of all materials like stone aggregate spawl kanker lime surkhi etc or 150 cft of timber by truck or by any other means owned by the contractor.					
		1st KM	100 Cft	1	1.22	299.40	365.27
		2nd KM	100 Cft	1	1.22	145.25	177.21
		3rd KM	100 Cft	1	1.22	116.85	142.56
		4th KM	100 Cft	1	1.22	85.30	104.07
		5th KM	100 Cft	1	1.22	80.20	97.84
		6th KM	100 Cft	1	1.22	79.00	96.38
		7th KM	100 Cft	1	1.22	74.25	90.59
		8th KM	100 Cft	1	1.22	73.50	89.67
		9th KM	100 Cft	1	1.22	69.55	84.85
		10th KM	100 Cft	1	1.22	65.70	80.15
		From 11 km to 200 km	100 Cft	163.00	1.22	57.25	11,384.74
		<b>Total.</b>					<b>26,489.72</b>
		<b>Total Amount per 100 Cft</b>					<b>26,489.72</b>
		<b>Total cast for Per Cft</b>					<b>264.90</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 4**

Description						
Crush Stone						
Sr. No.	2nd BI-Annual-2022 (July to Dec) Toba tek singh	Description	Unit	Lead (Km)	Rate (Rs)	Amount (Rs)
1	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor.				
		<b>Carriage</b>				
		1st KM	100 Cft	1	299.40	299.40
		2nd KM	100 Cft	1	145.25	145.25
		3rd KM	100 Cft	1	116.85	116.85
		4th KM	100 Cft	1	85.30	85.30
		5th KM	100 Cft	1	80.20	80.20
		6th KM	100 Cft	1	79.00	79.00
		7th KM	100 Cft	1	74.25	74.25
		8th KM	100 Cft	1	73.50	73.50
		9th KM	100 Cft	1	69.55	69.55
		10th KM	100 Cft	1	65.70	65.70
		From 11 km to 200 km	100 Cft	163.00	57.25	9,331.75
		<b>Total.</b>				<b>10,420.75</b>
		<b>Total Amount per 100 Cft</b>				<b>10,420.75</b>
		<b>Total cast for Per Cft</b>				<b>104.21</b>



**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 5**

<b>Manhole Construction 2 x 2 Ft</b>										
									<b>Unit</b>	<b>Each</b>
Sr. No.	2nd BI-Annual-2022 (July to Dec) Okara	Description	No.	Length	Width	Height	Qty	Unit	Rate (Rs)	Amount (Rs)
1	3-42-i	Excavation. (0 to 7 feet depth)	1	3.50	3.50	3.00	36.75	1000 Cft	#####	431.46
2	6-3-b	Cement concrete brick or stone ballast (1:4:8)	1	3.50	3.50	0.33	4.04	100 Cft	#####	1,002.40
3	6-5-f	Base slab	1	3.50	3.50	0.25	3.06	100 Cft	#####	1,169.23
4	6-6-(a)(iii)	Top ring Beam Ratio 1:2:4	1	3.500	3.50	0.33	4.04	100 Cft	457.75	1,850.45
5	6/12 (c)	Steel work		3.00 kg per cft			14.15	kg	#####	4,497.11
6	7-7-i	Brick Work Ratio 1:3 Step - 1	1	11.00	0.75	2.00	16.50	100 Cft	#####	5,411.36
7	11-8-c	3/4" thick Plaster Ratio 1:3 (External)	1	11.00		2.00	22.00	100 Sft	4,589.85	1,009.77
8	11-18-a	Cement pointing struck joints, on walls (1:2) (Internal)	1	8.00		2.00	16.00	100 Sft	3,518.35	562.94
9	13-9-i	Bitumen Coating on External Plaster	1	11.00		2.00	22.00	100 Sft	2,148.00	472.56
10	19-40-ii	Supply and fitting of cast iron manhole cover ii) 45 cm (18") dia	1				1.00	Each	1,342.50	1,342.50
<b>Grand Total.</b>										<b>17,750</b>

PUNJAB CITIES PROGRAM (PCP)										
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB										
Rate Analysis - 5										
Description										
Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, complete in all respects										
								Unit.	Each	
Sr. No.	Ref	Detail	Unit Rate (British System) per Each							
			Qty	Rate Per Unit		Amount (Rs.)				
		<u>Material</u>								
1	MR	Mirror Light			1.00	No	850	No.	850.00	
								<b>Total.</b>	<b>850.00</b>	
2		Carriage & Installation Charges	5	%					42.50	
								<b>Total.</b>	<b>892.50</b>	
		GST 17% on item No. 1	17	%					144.50	
		Contractor's Profit on item No. (1&2)	20	%					178.50	
		Total							<b>1,215.50</b>	
		<u>ITEM RATES</u>								
		<b>Composite rate Per Each</b>						Rs.	<b>1,215.00</b>	

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 6**

Description									
Supply, installation and commissioning recessed 10W LED Down Light complete in all respects.									
								Unit.	Each
Sr. No.	Ref	Detail			Unit Rate (British System) per Each				
					Qty	Rate Per Unit		Amount (Rs.)	
		<b><u>Material</u></b>							
1	MR	LED Down Light			1.00	No.	1,000	No.	1,000.00
								<b>Total.</b>	<b>1,000.00</b>
2		Carriage & Installation Charges		5 %					50.00
								<b>Total.</b>	<b>1,050.00</b>
		GST 17% on item No. 1		17 %					170.00
		Contractor's Profit on item No. (1&2)		20 %					210.00
		Total							<b>1,430.00</b>
		<b><u>ITEM RATES</u></b>							
		<b>Composite rate Per Each</b>						Rs.	<b>1,430.00</b>

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 7**

<b>Description</b>										
Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories complete in all respects										
								<b>Unit.</b>	<b>Each</b>	
<b>Sr. No.</b>	<b>Ref</b>	<b>Detail</b>				<b>Unit Rate (British System) per Each</b>				
					<b>Qty</b>	<b>Rate Per Unit</b>	<b>Amount (Rs.)</b>			
		<b><u>Material</u></b>								
1	MR	Highbay Light			1.00 No.	24,500	No.	24,500		
							<b>Total.</b>	<b>24,500</b>		
2		Carriage & Installation Charges		5 %				1,225		
							<b>Total.</b>	<b>25,725</b>		
		GST 17% on item No. 1		17 %				4,165		
		Contractor's Profit on item No. (1&2)		20 %				5,145		
		Total						<b>35,035</b>		
		<b><u>ITEM RATES</u></b>								
		<b>Composite rate Per Each</b>						<b>Rs.</b>	<b>35,035</b>	

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 8**

Description									
Supply, installation, testing, and comissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.									
								<b>Unit.</b>	<b>Each</b>
Sr. No.	Ref	Detail	Unit Rate (British System) per Each						
			Qty	Rate Per Unit	Amount (Rs.)				
		<b><u>Material</u></b>							
1	MR	ii) Automatic Star Delta Starter ASDS for 7.5kW Motor	1.00	No.	51,900	No.			51,900
							<b>Total.</b>		<b>51,900</b>
2		Carriage & Installation Charges	5	%					2,595
							<b>Total.</b>		<b>54,495</b>
		GST 17% on item No. 1	17	%					8,823
		Contractor's Profit on item No. (1&2)	20	%					10,899
		Total							<b>74,217</b>
		<b><u>ITEM RATES</u></b>							
		<b>Composite rate Per Each</b>					<b>Rs.</b>		<b>74,220</b>

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 9**

<b>Description</b>									
Supply, installation, testing, and commissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.									
								<b>Unit.</b>	<b>Each</b>
<b>Sr. No.</b>	<b>Ref</b>	<b>Detail</b>	<b>Unit Rate (British System) per Each</b>						
			<b>Qty</b>	<b>Rate Per Unit</b>	<b>Amount (Rs.)</b>				
		<u><b>Material</b></u>							
1	MR	i) Direct of Line (DOL) Starter for 3kW Motor	1.00	No.	39,300	No.		39,300	
								<b>Total.</b>	<b>39,300</b>
2		Carriage & Installation Charges	5	%					1,965
								<b>Total.</b>	<b>41,265</b>
		GST 17% on item No. 1	17	%					6,681
		Contractor's Profit on item No. (1&2)	20	%					8,253
		Total							<b>56,199</b>
		<u><b>ITEM RATES</b></u>							
		<b>Composite rate Per Each</b>						<b>Rs.</b>	<b>56,200</b>

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 10**

Description										
Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought prior to placing order.										
								<b>Unit.</b>	<b>Per Sft</b>	
Sr. No.	Ref	Detail	Unit Rate (British System) per Sft							
			Qty	Rate Per Unit	Amount (Rs.)					
		<b>Area 1920 Sft</b>								
		<b>Material</b>								
1	MR	Supply of PEB Shed (32' x 60')	1	Sft	2,421,927	Sft		2,421,927		
		GST						411,728		
								<b>Total.</b>	<b>2,833,655</b>	
2	MR	Installation Charges							100,914	
		PST						16,146		
								<b>Total.</b>	<b>117,061</b>	
		Contractor's Profit on item No. (1&2)	20	%					504,568	
		Total							<b>3,455,284</b>	
		<b>ITEM RATES</b>								
		Composite rate 1920 Sft						<b>Rs.</b>	<b>3,455,290</b>	
		Composite rate Per Sft						<b>Rs.</b>	<b>1,800</b>	

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis - 11**

<b>Description</b>										
Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.										
								<b>Unit.</b>	<b>Each</b>	
<b>Sr. No.</b>	<b>Ref</b>	<b>Detail</b>	<b>Unit Rate (British System) per Each</b>							
			<b>Qty</b>	<b>Rate Per Unit</b>		<b>Amount (Rs.)</b>				
		<u><b>Material</b></u>								
1	MR	Ceiling Fan	1.00	No.	5,525	No.			5,525	
								<b>Total.</b>	<b>5,525</b>	
2		Carriage & Installation Charges	5	%					276.25	
								<b>Total.</b>	<b>5,801</b>	
		Contractor's Profit on item No. (1&2)	20	%					1,160	
		Total							<b>6,962</b>	
		<u><b>ITEM RATES</b></u>								
		<b>Composite rate Per Each</b>						<b>Rs.</b>	<b>6,961</b>	
		<b>Say</b>						<b>Rs.</b>	<b>7,000</b>	





## **WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

**Date: April 26<sup>th</sup>, 2022**

**Client: M/s Jers Consultancy**

**Reference No: PEBS-22-069**

**Project Name: Parking Shed**

Dear Sir,

Thank you for giving us the opportunity to submit our proposal for the above-mentioned project.

PEBS proposal is based on the drawings and data provided by you and is in accordance with PEBS standard design practices and terms & conditions of sale.

PEBS scope of work covers design, fabrication, supply and installation of Pre-Engineered Building in strict accordance to the standards and specifications of PEBS, unless otherwise stated in the proposal.

PEBS intends to comply with your project requirement however kindly refer Section 9 of this proposal for exclusions, deviations and assumptions which are applicable to this offer.

**Prices are valid for a period of 3 days from the date of this quote.**

We are keen to secure this project and start new business relations with your esteemed company.

We assure you of superior quality of our buildings and best after sale services.

Sincerely



Essa Khalid

**Director**



## **WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

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**WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

**Section No.1: Building Parameters**

Sr.	Building Description		
1	Frame Type	<b>Mono-Slope</b>	
2	Number of interior Columns	-	
3	Width (m)	9.753 O/O of Steel Line	
4	Length (m)	18.287 27.431 36.574 45.718 O/O of Steel Line	
5	Clear Height (m)	6.096	
6	Roof Slope (Rise: Run)	As per design	
7	Bay Spacing (m)	As per design	
8	Width Module	-	
9	Base Condition	Exterior Column	Pinned
		Interior Column	Pinned
10	Bracing Types	At Roof	Cable Bracing
		At Wall	
11	Type of Eave	Eave Gutters & Downspouts	
12	Type of Gable	Gable Trim	
13	Fillet Weld of Built up Sections	Single Side Welding for all Built up Sections	

Sr.	Wall Conditions	
1	Front Side Wall	Open
2	Back Side Wall	Open
3	Left End Wall	Open
4	Right End Wall	Open



## WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

Item	Roof and Wall Cladding	
Roof Cladding	Outer Sheet	<b>0.5mm (Nominal) Pre-Painted Aluzinc Sheets (Imported)</b>
	Insulation	<b>Not Applicable</b>
	Inner Sheet	<b>Not Applicable</b>
Wall Cladding	Outer Sheet	<b>Not Applicable</b>
	Insulation	<b>Not Applicable</b>
	Inner Sheet	<b>Not Applicable</b>

### Exclusions

- All kind of works not offered in our scope of supplies & services.
- Any civil works including but not limited to RCC Screed, Brick Masonry, Excavation, Foundation Works, D.P.C, Flooring, and Plastering is not included in our scope.
- Doors, window, false ceiling, Glasswork, Fascia etc.
- Anchor bolts fixing, Foundations, Electrification and Plumbing etc.
- Electricity and water at site during erection

**WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

**Section No.2 Building Loads**

Sr.	Design Load	Value
1	Design Live Load on Roof (kN/m <sup>2</sup> )	0.57
2	Design Live Load on Frame (kN/m <sup>2</sup> )	0.57
3	Co-lateral Load (kN/m <sup>2</sup> )	0.00
4	Wind Speed (km/hr)	135
5	Wind Exposure Category	B
6	Seismic Zone	2B (as per UBC 1997)
7	Rainfall Intensity (mm/hr)	150 mm/hr.
8	Solar Loading (kN/m <sup>2</sup> )	0.00

**Section No.3 Applicable Codes**

**Loads applied on buildings and tolerances for fabrication and erection are in accordance with:**

The 2010 edition of the Low Rise Building Systems Manual By Metal Building Manufacturers Association, Inc. (MBMA) 1300 Summer Ave., Cleveland, Ohio 44115, USA

**Hot rolled sections and built up sections are designed in accordance with:**

The 2005 edition of the Manual of Steel Construction, By American Institute of Steel Construction, Inc. (AISC) 1 East Wacker Drive, Suite 3100, Chicago, Illinois 606012001,

**Cold formed members are designed in accordance with:**

The 2001 Edition of Cold Formed Steel design Manual By American Iron and Steel Institute (AISI) 1000 16th Street, NW, Washington, DC 20036, USA

**Welding and its inspection / testing for Steel Structure Fabrication will be in accordance with:**

The latest Edition of Structural Welding Code - Steel (AWS D1.1: 2008) By American Welding Society (AWS) 550 NW LeJeune Road, Miami, FL 33126, USA

**WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

**Section No.4: Material Specifications**

Sr.	Building Component		Material Specification	Strength
1	Built-up Section			
2	Hot Rolled Sections	I-Sections	ASTM A-36	Fy:25.00 kN/cm <sup>2</sup>
		Channels		
3	Cold Formed Secondary Members	Purlins	ASTM A653M Grade 340 Class 1 Z275	Fy:34.0 kN/cm <sup>2</sup>
		Girts		
4	Sheeting Panels	Roof	PPGL as per	Fy:34.0 kN/cm <sup>2</sup>
		Wall	ASTM A792M Grade 345B Class 1 AZM150	
5	Diagonal "X" Bracing	Bracing Cable	ASTM A475 Extra High Strength Class A	Pu: 120kN
		Bracing Rods	ASTM A36M (or Equivalent)	Fy:25.0 kN/cm <sup>2</sup>
		Flange Braces	ASTM A36 (or Equivalent)	Fy: 25 kN/cm <sup>2</sup>
6	Sag Rods		ASTM A36M (or Equivalent)	Fy:25.0 kN/cm <sup>2</sup>
7	Base and Gable Angles		ASTM A653M Grade 340 Class 1 Z275	Fy:34.0 kN/cm <sup>2</sup>
8	Anchor Bolts		ASTM A36M (or Equivalent)	Fy:25.0 kN/cm <sup>2</sup>
9	High Strength Bolts		ASTM A325 Type 1 (Hot-dip Galvanized)	Fy:66.0 kN/cm <sup>2</sup>

**Material Finish**

- All primary members will be cleaned and then painted **with single coat of red oxide primer (DFT 30-40 microns)** and then painted with **final enamel paint. (70-80 microns)**
- All secondary members will be made of pre-galvanized coil.



## **WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

### **Section No.5: Approval Drawings**

**Approval drawings under this agreement will be submitted in 2 weeks** from the date of receipt of the following:

- Signed Contract
- Advance Payment

**Client must sign and return the Approval drawings to PEBS within 1 week** of receipt of these drawings.

Variation requested by client after submission of Approval drawings will result in change in contract price and delivery period. Such change must be mutually agreed in writing as Variation Order.

### **Section No.6 Delivery Schedule**

**PEBS will design, fabricate and dispatch the material to Job site in 08-10 weeks.** However, this period will begin from the latest date of receipt and acceptance of the following:

- Signed Contact
- Advance Payment
- Receipt of Signed Approval Drawings from client
- In case of any variation, Clients written acceptance for variation in price and delivery period.

Delivery period mentioned above is dependent on client fulfilling all its obligation in a timely manner, including the return of approval drawings and adhering to agreed payment schedule.

Erection of the Building will start after the arrival of first dispatch material at job site. **Erection schedule will be established at the finalization stage.**

**WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

**Section No. 7: Prices**

Sr. #	Description	Price (PKR)
1	Supply of PEB Shed (32' x 60')	2,421,927/-
2	Supply of PEB Shed (32' x 90')	3,632,891/-
3	Supply of PEB Shed (32' x 120')	4,843,855/-
4	Supply of PEB Shed (32' x 150')	6,054,818/-
<b>Total Supply Amount (Exclusive of GST)</b>		<b>16,953,491/-</b>
GST @ 17%		2,882,094/-
<b>Total Amount (Inclusive of GST)</b>		<b>19,835,585/-</b>

1	Installation Services (32' x 60')	100,914/-
2	Installation Services (32' x 90')	151,371/-
3	Installation Services (32' x 120')	201,827/-
4	Installation Services (32' x 150')	252,283/-
<b>Total Installation Services Amount (Exclusive of PST)</b>		<b>706,395/-</b>
PST 16%		113,023/-
<b>Total Amount Inclusive of PST)</b>		<b>819,419/-</b>

The Supply amount is subjected to sales tax on supplies. Applicable percentage (17%) will be added to our bill and sales tax invoice will be provided of the same upon receipt by Wahdat Industrial Services (Pvt) Ltd.

The Supply amount is subjected to 4% income tax under section 153(1)(a)(Income tax Ordinance). Client shall provide withholding challans of the same.

The Installation services amount is subjected to sales tax on services. Applicable percentage (16%) will be added to our bill and sales tax invoice will be provided of the same upon receipt by Ittefaq Building Solutions (Pvt) Ltd.

The Installation services amount is subjected to 8% income tax under section 153(1)(B)(Income tax Ordinance 2001). Client shall provide withholding challans of the same.





## **WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

### **Section No.8 Payment Terms**

#### **Supply Payment**

- **50% - Advance on Signing of Contract or Receipt of PO**
- **25% - Before Dispatch of Building Framing**
- **25% - Before Dispatch of Building Sheeting**

#### **Installation Services Payment**

- **50% - Before Installation Services**
- **50% - After completion of Installation Services**

### **Section No.9: Deviations, Exclusions and Assumptions**

Manufacturing and supply will be initiated only after receipt of complete engineering package duly approved by the Client.

Both parties agreed that the price quoted in this quotation is based on a lump sum basis calculated according to the building descriptions as well as the required loading and codes shown above and not as a re-measurable basis. Hence, the project weight given at the quotation stage is only indicative and no claim will be entertained in case of a reduction in the building weight after the final design or the shipment. However, should there be any revision to the scope of the work after signing of the contract which may result in an increase or decrease in the contract value.



## **WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED**

Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

### **Section No. 10 Standard Terms and Conditions**

- **Changes / Revisions**

Any change or revision to the above stated scope of supply may lead to a variation in the price and the delivery period. A change must not hold payment for work completed as per original contract.

- **Additional Works**

For any additional work (which is not included in our scope of work) cost will be charged separately from given price

- **Escalation clause**

Prices are quoted as per prevailing market conditions: any change in material price can affect the quoted price after expiry of quotation validity period.

- **Proposal Validity**

Prices are valid for a period of 3 days from the date of this quote.

If the job (project) is not “Finalized by the client” within 3 days from the date of entering this order, it will be subject to delivery change and price change in accordance with the prevailing delivery schedules and prices at the end of above noted period.

- **Termination of Agreement**

If clients terminate the agreement after payment of advance and submission of approval drawings by PEBS then PEBS have right to keep the advance payment to cover the expenses that occurred during that period and client will have no claim on that payment.



**URFA ELECTRIC (SMC) PVT LTD.**  
NTN# . 5381194 , SRTN# 3277876163771

**HOUSE NO E279/1, STREET NO 2,  
RIFFLE RANGE ROAD WALTON ROAD  
LAHORE CANTT.  
WWW.OPPLE.COM  
Email: OPPLA.ECOTEK@GMAIL.COM  
Mobile : 0301-8440368, 0332-3877786**

## QUOTATION

QTN-01544-1

<b>Customer Name</b>	<b>JERS CONSULTANCY PVT LTD</b>	<b>Date</b>	05-08-2022
<b>Contact</b>	JERS CONSULTANCY PVT LTD		
<b>Mobile No</b>	MR ASAD: 03004315935		

Sr	Description	Quantity	Rate	Amount
1	<b>140053331</b> LED-HML455A-D0.2*40-6500K-Knight	Nos 1	Rs 4,000.00	Rs 4,000.00
2	<b>503002016210</b> LED-E1-T5 batten-870mm-10.5W-4000K	Nos 1	Rs 850.00	Rs 850.00
3	<b>540001136310</b> LEDDownlight RC-US R150-12W-6500-WH-SASA - PF >.95	Nos 1	Rs 1,000.00	Rs 1,000.00
4	<b>540001136310 WITH BACK BOX</b> LEDDownlight RC-US R150-12W-6500-WH-SASA - PF >.95	Nos 1	Rs 1,500.00	Rs 1,500.00
5	<b>545001007410</b> LEDHighbay-P4 110W-5700-60+100D-GY-GP	Nos 1	Rs 24,500.00	Rs 24,500.00

**Total** Rs 31,850.00

**Grand Total** Rs 31,850.00

**Rounded Total** **Rs 31,850.00**

**In Words** PKR Thirty One Thousand, Eight Hundred And Fifty only.

### Terms & Conditions:

<b>PRICE:</b>	Ex-Warehouse
<b>PAYMENT:</b>	100% Advance payment.
<b>DELIVERY:</b>	Subject to availability of stock otherwise 7-8 weeks from the date of confirmed PO/Advance.

<b>TAXES &amp; DUTIES:</b>	Quoted Price Ex-clusive of GST 17% , Incom Tax 4.5% not be deducted , exemption certificate available.
<b>DUTIES:</b>	As per Govt. rules and regulations, In case of any change in the terrif from Govt. of Pakistan that will be applicable accordingly.
<b>VALIDITY:</b>	20 days.
<b>WARRANTY:</b>	2 Year Warranty against any manufacturing defect.
<b>OTHER:</b>	Force majour clause is applicable, partial payment and partial payment is allowed.

**RIZWAN HUSSAIN**

**Cell: +92 301 8440368**



# JUBILEE CORPORATION

Switchgear • Automation • Instrumentation • Controls

Technology Driven Quality Service

First Floor, Fakhri Trade Centre, Shahrah-e-Liaquat, P.O. Box: 677,  
Karachi-74200 Pakistan. UAN: 021 111 000 520  
Tel: +92 21 3260 2200-07 (8 lines), Fax: +92 21 3260 2211  
Web: www.jubileecorporation.com  
Email: jubilee.corp@cyber.net.pk

Dated: Wednesday, 10 August 2022									
Messrs: JERS CONSULTANT									
To: Mr. Asad Malik									
SUB: Quotation for switchgear components									
REF: PS/10082022									
SR NO.	DESCRIPTION	RATING	MODEL	MAKE	ORIGIN	QTY	U/P	TOTAL	
<b>3KW DOL STARTER COMPONENTS BASED ON Terasaki</b>									
1	MCCB TP ADJ.	12.5A TO 20A, 30KA	S125NJ	TERASAKI	JAPAN	1	25,000	25,000	
2	MAGNETIC CONTACTOR TP	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300	
3	THERMAL OVERLOAD RELAY	6-18A	TK32a	TERASAKI	KOREA	1	8,000	8,000	
							39,300		
							Errors & Omissions Expected (E&OE)		
<b>7.5 KW STAR DELTA STARTER COMPONENTS BASED ON Terasaki</b>									
1	MCCB TP	20-32A, 30KA	S125NJ	TERASAKI	JAPAN	1	25,000	25,000	
2	MAGNETIC CONTACTOR TP (MAIN)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300	
3	MAGNETIC CONTACTOR TP (DELTA)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300	
4	MAGNETIC CONTACTOR TP (STAR)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300	
5	THERMAL OVERLOAD RELAY	6-18A	TK32a	TERASAKI	KOREA	1	8,000	8,000	
							51,900		
							Errors & Omissions Expected (E&OE)		

**TERMS & CONDITIONS**

**Price Validity:**

7 days from the date of offer submission. For further extension in validity, our confirmation in writing is necessary.

Our prices are calculated on current date of currency parity against PKR. In the event of any change in international currency rates / currency devaluation by government until final supply of order, rate difference will be on customer account.

Prices are calculated on present custom duties and government taxes. Any change in government regulation or duties and taxes at the time of import of material or during execution of order against customer's confirmed purchase order will be on customer account.

**Delivery Period:**

Mostly from ready stocks. Remaining about 12-14 weeks from the date of confirmed purchase order and advance payment, whichever is later.

Any changes / revision / addition in purchase order after confirmation, delivery date will reset accordingly.

**Force Majeure:**

Our offer is subject to usual Force Majeure clause.

**General Sales Tax:**

General Sales Tax will be charged on the offered prices adhering to the law of Government of Pakistan. [Note: Sales Tax @ 17% will charge to you if you are a registered person (under Sales Tax Act, 1990). If you are unregistered person (as per law) then additional 3% will charge as further tax.]

Our supplies are excluded from SWHT under SRO 897 of 2013 (Point (c)) issued by FBR on October 4, 2013 as the commercial importers who paid value addition tax on such goods at the time of import as prescribed under Chapter X of the Sales Tax Special Procedure Rules, 2007 are excluded from the provision of these rules and the Sales Tax Special (Withholding) Rules, 2007 shall not be applicable on such supplies.

**Payment terms:**

100% advance payment along with confirm purchase order with Sales Tax.

**Income Tax:**

Our supplies are exempted from WHT u/s 153(5) of the Income Tax Ordinance, 2001 as all taxes are duly paid at import stage u/s 148 against the supplies made to you by us.

**Warranty:**

One-year warranty against any manufacturing defects. Our liability excludes natural wear & tear, defects arising after transfer of risk owing transport risks, installation, operation, maintenance contrary to manuals and instructions, mishandling or negligence on part of the customer.

Upon receipt of customer's intimation, we shall within adequate time repair or replace, at our option, the defective part, to bring the product in working condition.

ADIL SHER  
DEPUTY MANAGER PROJECTS

MANSOOR PASHA  
GM PROJECTS

**Buy Online**



**Deluxe**  
Price from **5,525 Rs**

1 color available

**Buy Online**



**Jazz**  
Price from **5,795 Rs**

2 colors available

**Buy Online**



**Classic Super**  
Price from **5,895 Rs**

1 color available

**Buy Online**



**Classic**  
Price from **5,895 Rs**

1 color available

**Buy Online**



**Hilux**  
Price from **5,975 Rs**

164  
  2 colors available

**Out of stock**



**Classic Gold**  
Price from **5,995 Rs**

1 color available

**ANNEXURE C**  
**ECONOMIC BENEFITS**

# Economic Benefits

The construction of parking shed can be beneficial for the community in multiple ways. The Economic benefits of a parking shed are given below:

- A safe yard is provided for SWM vehicles in mechanized form.
- Parking shed helps to save a lot of energy. Car parking shade can be very beneficial to save a lot of energy by protecting it from the heat sun. The shades can allow maintaining a cooler environment for the vehicles and also reduces the amount of energy required to cool down from the heat of the sun.
- The parking shed helps in prevention of vehicles from rusting, sunlight, weather conditions, etc.
- In-house workshops are provided for the repairing and maintenance of vehicles.
- The parking shed provides safety to SWM vehicles.
- The parking shed helps in prevention from heating up of engines.



# **Annexure-D**

## **Gant Chart**

**TENTATIVE PROJECT IMPLEMENTATION SCHEDULE FOR CONSTRUCTION OF PARKING SHED FOR SWM MACHINERY  
YEAR (2022-2023)**

Sr.No	Activity Name	NOV-22				DEC-22				JAN -23				FEB -23				MAR -23				APR-23			
1	Building Works					■	■	■	■	■	■	■	■	■	■										
2	Boundary wall & Gates	■	■	■	■	■	■																		
3	Parking Shed									■	■	■	■	■	■	■									
4	Workshop & Washing area											■	■	■	■	■	■	■	■						
5	Road & Pathways																	■	■	■	■	■	■	■	■

**Annexure-E**  
**E&S Checklist and SOPs**

## Environmental & Social Screening Checklist

### Instructions:

Environmental and Social Focal Persons (ESFPs)<sup>1</sup> nominated by the MCs for PCP environmental and social management, will use this checklist in field for environmental and social screening and categorization of each and every sub-project proposed to be executed under the Program.

Deputy Program Officers-Environmental and Social Management deputed by PMDFC in regional offices will technically assist and support the ESFPs/MCs in filling in of this Checklist

It is to be attached with the main document<sup>2</sup> of sub-projects at planning stage and will be duly signed by the relevant ESFP and endorsed by the respective DPO-ESM

This checklist focuses on environmental issues and social concerns. To ensure that social dimensions are adequately considered, Involuntary Resettlement Screening Checklist will also be used

(iii) The purpose of this E&S Screening Checklists is to identify potential "Negative" impacts of environmental and social attributes or to enhance the existing environmental & social benefits. Use the "remarks" section to discuss any anticipated mitigation measures.

Name of ESFP:

*MOI-MoP*

Name of MC:

*DCU Kamalia*

Sub-Project Sector:

*Solid Waste Management*

Sub-Project Title:

*Construction of Parking Area for SWM at Nawaz Sharif Disposal Station.*

Sub-Project Categorization:

E-1

S-1

E-2

S-2

E-3

S-3

Date of Screening:

*20/03/2022*

Anticipated Project Activities

- Parking Sheds for SWM*
- Working Area*
- Guard room*

Estimated Cost of Subprojects

Tentative Completion Time/Duration

*06 months*

Estimated Labor for Subproject

*15-20*

<sup>1</sup> In all MCs, ESFPs are notified by Local government; MO (I&S) are focal persons for environmental sector and MO(P) are focal persons for social sectors.

<sup>2</sup> It is meant as PC-I and/or engineering estimates of sub-project

Screening Questions	Yes	No	Remarks
<b>A. Project Siting</b>			
Is the Sub-Project area adjacent to or within any of the following:			
<b>Environmentally sensitive areas?</b>			
Legally protected Area		✓	No environmentally
Any surface water body (river, canal, stream, lake, wetland) within 250 meter of the proposed sub project <sup>3</sup>		✓	Sensitive receptor
Estuarine		✓	observed on proposed
Special area for protecting biodiversity		✓	location for SWM
Buffer zone of protected area		✓	parking shed.
Mangroves Forest		✓	
Man-made forest /game reserve, orchid /crops or any other area of environmental importance		✓	
<b>Socially sensitive /important areas/communities/ people?</b>			
PCRs and or any site of cultural/religious importance (Graveyard, Shrine, Mosque, Church, <i>Gordwarah</i> , Temple, Fort, archeological/historical site) within 100 m of the proposed subproject <sup>4</sup>		✓	No socially sensitive receptors exists within
Sensitive receptors (Schools, colleges, hospitals and clinics) within 100 meter of the proposed sub project <sup>5</sup>		✓	100 meters of the
Any graveyard of local community (Muslims or Christians)		✓	proposed location.
Any demographic or socio-economic aspects of the sub-project area that are already vulnerable (e.g., high incidence of marginalized populations, rural-urban migrants, illegal settlements, squatters, ethnic minorities, people with disabilities, people in old age, socially isolated segments <sup>6</sup> of the society and women or children)?		✓	
Already existing infrastructure <sup>7</sup> (including public amenities) which may be required to dismantle or may be affected temporarily by any means?		✓	
<b>B. Potential Environmental Impacts</b>			
Will the Sub-Project cause...			
1. Disturbance to habitats/biodiversity of environmentally sensitive or protected areas?			
2. Cutting of trees?		✓	Existing trees should be saved
3. Disruption to habitats/biodiversity of surrounding ecosystem/environment?		✓	with technical designs of panning shed

<sup>3</sup> Ibid.

<sup>4</sup> According to Environmental Assessment Guidelines adopted by Punjab EPA

<sup>5</sup> Ibid.

<sup>6</sup> due to caste, creed, religion or gender e.g. transgender

<sup>7</sup> Sewerage /Drainage system, Water supply lines, tube-wells, WAPDA/Telephone transmission lines/electric poles, Railway tracks, Gas pipelines, Roads, Shops/Plazas, Banks, Industry, Disposal stations etc.

4. Generation of wastewater during construction or operation?	✓		Wastewater from washing area should be treated/managed
5. Pollution of surface water/ground water due to wastewater discharge from construction site or due to direct/indirect disposal of waste water?		✓	
6. Alteration of surface water hydrology of waterways resulting in increased sediment in streams/ rivers or due to increased soil erosion at construction site?		✓	
7. Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	
8. Over pumping of ground water, leading to salinization and ground subsidence?		✓	
9. Serious contamination of soil due to construction works?		✓	
10. Aggravation of solid waste problems in the area?		✓	
11. Generation of hazardous waste?		✓	
12. Increased air pollution due to sub-project construction and operation?		✓	No such impact envisaged
13. Noise and vibration due to sub-project construction or operation?		✓	"
14. Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents due to solid/liquid?		✓	
15. Use of chemicals during construction?		✓	
<b>C: Potential Social Impacts</b>			
Will the Sub-Project cause...			
1. Impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to Physical Cultural Resources (PCRs)?		✓	
2. Displacement or involuntary resettlement of people? (physical displacement and/or economic displacement) (If "Yes", please also fill Involuntary Resettlement Screening Checklist)		✓	No resettlement of people & land acquisition required for the
3. Disproportionate impacts on the poor, women and children and or other vulnerable groups <sup>8</sup> (mentioned above)?		✓	Construction of poultry sheds.
4. Temporary impediments in movements of people/transport and animals?		✓	

<sup>8</sup> Women, Children, Women headed households, People in old age, people having disabilities, socially isolated community groups and or people living below the poverty line

5. Large population influx during sub-project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		✓	
6. Social conflicts if workers from other areas are hired?		✓	
7. Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		✓	
8. Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		✓	
9. Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		✓	
10. Any impact on sensitive receptors (mentioned above)		✓	
11. Any impact of negative nature on already existing infrastructure including public amenities		✓	

**Prepared By:**

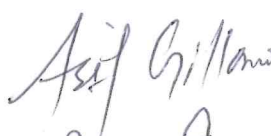
**Name:** Muhammad Sagheer

**Signature:** 

**Date:**

**Endorsed By:**

**Name:**

**Signature:** 

**Date:**

# PUNJAB CITIES PROGRAM

## ENVIRONMENT, HEALTH AND SAFETY SOPs FOR LABOR/WORKERS

Labor /workers play key role in the infrastructure development and construction activities. The objective of preparation of the EHS SOPs for Labor/Workers is to address environment, health and safety issues related to the proposed sub-project implementation. These SOPs will provide guidelines to be followed by the contractors for effective management of EHS issues related to labor/workers/daily wagers (including women). These SOPs will be annexed in the general conditions of all the contracts carried out under the PCP. These SOPs are designed for Punjab Cities Program and will be applicable to all types of labor/workers/daily wagers (including women), hired for the construction activities under PCP. Following are the anticipated Environment, Health and Safety issues and their recommended mitigation measures.

**Table 1: Construction Camp Management**

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
Siting and Location of construction camps	<p>Camp sites for construction workers are the important locations that have significant impacts such as health and safety hazards on labor/workers</p> <p>Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.</p>	<p>The Contractor shall:</p> <p>Locate the construction camps at areas which are acceptable from environmental, cultural or social point of view.</p> <p>Consider the location of construction camps away from communities in order to avoid social conflict with the surrounding communities.</p> <p>Submit to the relevant MC for approval of a detailed layout plan for the development of the construction camp showing the relative locations of all temporary buildings and facilities that are to be constructed together with the location of site roads, fuel storage areas (for use in power supply generators), solid waste management and dumping locations, and drainage facilities, prior to the development of the construction camps.</p> <p>Local authorities responsible for health, religious and security shall be duly informed on the set up of camp facilities so as to maintain effective surveillance over public health, social and security matters</p>
Construction Camp Facilities	<p>Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will generate social issues and impacts on health and environment.</p>	<p>Contractor shall provide the following facilities in the campsites:</p> <p>Adequate ventilation facilities</p> <p>Safe and reliable drinking water supply for personal hygiene (washing or bathing)</p> <p>Adequate housing for all workers</p> <p>Safe and reliable drinking water supply. Water supply from tube wells that meets the Punjab Environment Quality Standards</p> <p>Hygienic sanitary facilities, hand washing facilities and sewerage system.</p> <p>The toilets and domestic waste water will be collected</p>



Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		<p>through a common sewerage.</p> <p>Provide separate latrines and bathing places for males and females with total isolation by wall or by location. Female toilets should be clearly marked in language or signage clearly understood by the persons using them to avoid miscommunication. The minimum number of toilet facilities required is one toilet for every ten persons.</p> <p>Storm water drainage facilities. Both sides of roads are to be provided with shallow v drains to drain off storm water to a silt retention pond which shall be sized to provide a minimum of 20 minutes retention of storm water flow from the whole site. Channel all discharge from the silt retention pond to natural drainage via a grassed swale at least 20 meters in length with suitable longitudinal gradient.</p> <p>Paved internal roads. Ensure with grass/vegetation coverage to be made of the use of top soil that there is no dust generation from the loose/exposed sandy surface. Pave the internal roads of at least haring-bond bricks to suppress dusts and to work against possible muddy surface during monsoon.</p> <p>Provide child crèches for women working on the construction site. The crèche should have facilities for dormitory, kitchen, indoor/outdoor play area. Schools should be attached to these crèches so that children are not deprived of education whose mothers are construction workers</p> <p>Provide in-house community/common entertainment facilities. Dependence of local entertainment outlets by construction camps to be discouraged/prohibited to the extent possible.</p>
Disposal of Labor Camp waste	Management of wastes is crucial to minimize impacts on the environment as well as on the health of the workers/labor	<p>The Contractor shall:</p> <p>Ensure proper collection and disposal of solid wastes within the construction camps</p> <p>Insist waste separation by source; organic wastes in one pot and inorganic wastes in another pot at household level.</p> <p>Store inorganic wastes in a safe place within the household and clear organic wastes on daily basis to waste collector. Establish waste collection, transportation and disposal systems at their own.</p> <p>Dispose organic wastes in a designated safe place on daily basis. At the end of the day cover the organic wastes with a thin layer of sand so that flies, mosquitoes, dogs, cats, rats, are not attracted. One may dig a large hole to put organic wastes in it; take care to protect groundwater from contamination by leachate formed due to decomposition. Cover the bed of the pit with impervious layer of materials (clayey, thin concrete) to protect groundwater from</p>

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		<p>contamination.</p> <p>Locate the garbage pit/waste disposal site min 500 m away from the residence so that peoples are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places. Encompass the waste dumping place by fencing and tree plantation to prevent children to enter and play with.</p> <p>All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.</p>
Fuel supplies for cooking purposes	Illegal sourcing of fuel wood by construction workers will impact the natural flora and fauna	<p>The Contractor shall:</p> <p>Provide fuel to the construction camps for their domestic purpose, in order to discourage them to use fuel wood or other biomass.</p> <p>Make available alternative fuels like natural gas or kerosene on ration to the workforce to prevent them using biomass for cooking.</p> <p>Conduct awareness campaigns to educate workers on preserving the protecting of biodiversity in the project area, and relevant government regulations and punishments on wildlife protection.</p>
Health and Hygiene	There will be a potential for diseases to be transmitted including COVID-19, malaria, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews spreading sexually transmitted infections and HIV/AIDS.	<p>The Contractor shall:</p> <p>Provide adequate health care facilities within construction sites.</p> <p>Provide first aid box facility at the construction site round the clock. Maintain stock of medicines in the first aid facility in camp sites facility and appoint fulltime designated first aider or nurse.</p> <p>Provide ambulance facility for the laborers during emergency to be transported to nearest hospitals and telephone/mobile facility to call for Emergency Services 1122.</p> <p>Initial health screening of the laborers coming from outside areas</p> <p>Train all construction workers in basic sanitation and health care issues and safety matters, and on the specific hazards of their work</p> <p>Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis</p> <p>Provide adequate drainage facilities throughout camps to ensure that disease vectors habitats (stagnant water bodies, puddles) do not form.</p> <p>Regular mosquito repellent sprays in monsoon.</p> <p>Carryout short training sessions on best hygiene practices to</p>

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		<p>be mandatorily participated by all workers.</p> <p>Place display boards at strategic locations within the camps containing messages on best hygienic practices</p> <p>Place display boards of contact information of nearest dispensary/health clinic/hospital</p>
Safety	<p>In adequate safety facilities to the construction camps may create security problems and fire hazards</p>	<p>The Contractor shall:</p> <p>Provide appropriate security personnel (police / home guard or private security guards) and enclosures to prevent unauthorized entry in to the camp area.</p> <p>Maintain register to keep track on a head count of persons present in the camp at any given time.</p> <p>Encourage use of flame proof material for the construction of labor housing/site office. Ensure that these houses/rooms are of sound construction and capable of withstanding storms/cyclones.</p> <p>Provide appropriate type of firefighting equipment suitable for the construction camps</p> <p>Display emergency contact numbers clearly and prominently at strategic places in camps.</p> <p>Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractor.</p>
Food Safety	<p>There is potential for exposure to poisonous substances by ingestion</p>	<p>Suitable arrangements are to be made for provision of clean eating areas where workers are not exposed to the hazardous or noxious substances</p>
Site Restoration	<p>Restoration of the construction camps to original condition requires demolition of construction camps.</p>	<p>The Contractor shall:</p> <p>Dismantle and remove from the site all facilities established within the construction camp including the perimeter fence and lockable gates at the completion of the construction work.</p> <p>Dismantle camps in phases as the work decreases (do not wait for completion of the entire work.</p> <p>Give prior notice to the laborers before demolishing their camps/units</p> <p>Maintain the noise levels within the national standards during demolition activities</p> <p>Different contractors should be hired to demolish different structures to promote recycling or reuse of demolished material.</p> <p>Reuse the demolition debris to a maximum extent. Dispose remaining debris at the designated waste disposal site by MCs/ESFPs.</p> <p>Handover the construction camps with all built facilities as it is if agreement between both parties (contractor and land-owner) has been made so.</p>

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		<p>Restore the site to its original condition or to an agreed condition with the landowner defined prior to the commencement of the works (in writing).</p> <p>Not make false promises to the laborers for future employment in O&amp;M of the project.</p>

**Table 2: Cultural and Religious Issues**

Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities	Disturbance in performance of religious activities	<p>The Contractor shall:</p> <p>Provide separate prayer facilities (men and women) to the construction workers.</p> <p>Show appropriate and non-biased behavior with all construction workers irrespective of their religious or cultural affinities</p> <p>Allow the workers to participate in praying during construction time</p> <p>Inform the local authorities responsible for health, religious and security duly informed before commencement of civil works so as to maintain effective surveillance over public health, social and security matters</p> <p>In case of working during COVID-19 pandemic, SOPs for prayers in Mosque issued by the Government of Punjab, will be applicable and it will be responsibility of contractor to sensitize the labor/workers about it</p>

**Table 3: Workers/Labor Health and Safety at Construction Site**

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
Construction Activities	Construction works may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the construction site and the construction workers will be exposed to a number of (i) biophysical health risk factors, (e.g. noise,	<p>The Contractor shall:</p> <p>Implement suitable safety standards for all workers and site visitors which should not be less than those laid down on the international standards (e.g. International Labor Office guideline on ‘Safety and Health in Construction; World Bank Group’s ‘Environmental Health and Safety Guidelines’) and contractor’s own national standards or statutory regulations, in addition to complying with the national acts and rules of the Government of Pakistan</p> <p>Provide the workers with a safe and healthy work environment, taking into account inherent risks in its particular construction activity and specific classes of</p>

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
	<p>dust, chemicals, construction material, solid waste, waste water, vector transmitted diseases etc), (ii) risk factors resulting from human behavior (e.g. STD, HIV etc) and (iii) road accidents from construction traffic.</p>	<p>hazards in the work areas, Provide Personal Protection Equipment (PPEs)<sup>1</sup> for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job Appoint an environment, health and safety manager to look after the health and safety of the workers Inform the local authorities responsible for health, religious and security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters</p>
	<p>Child and pregnant labor</p>	<p>The Contractor shall: not hire children of less than 14 years of age and pregnant women or women who delivered a child within 8 preceding weeks, in accordance with the Employment of Children Act (2015)<sup>2</sup> and Pakistani Labor Laws and policies respectively .</p>

<sup>1</sup> Table 4 presents general examples of occupational hazards and types of PPE available for different purposes.

<sup>2</sup> The ECA 2015 defines a child as a person who has not completed his/her 14th year of age. The ECA states that no child shall be employed or permitted to work in any of the occupations set forth in the ECA (such as transport sector, railways, construction, and ports) or in any workshop wherein any of the processes defined in the Act is carried out

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
Accidents	Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victims	<p>Provide health care facilities and first aid facilities are readily available. Appropriately equipped first-aid stations should be easily accessible throughout the place of work</p> <p>Document and report occupational accidents, diseases, and incidents.</p> <p>Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, so far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice.</p> <p>Identify potential hazards to workers, particularly those that may be life-threatening and provide necessary preventive and protective measures.</p> <p>Provide awareness to the construction drivers to strictly follow the driving rules</p> <p>Provide adequate lighting in the construction area and along the roads</p>
Water and sanitation facilities at the construction sites	Lack of Water sanitation facilities at construction sites cause inconvenience to the construction workers and affect their personal hygiene.	<p>The contractor shall provide separate portable toilets and hand washing facilities at the construction sites, if about 25 people are working the whole day for a month. Location of portable facilities should be at least six m away from storm drain system and surface waters. These portable toilets should be cleaned once a day and all the sewerage should be pumped from the collection tank once a day and should be brought to the common septic tank for further treatment.</p> <p>Contractor should provide bottled drinking water facilities to the construction workers at all the construction sites.</p>
Other issues	Potential risks on health and hygiene of construction workers and general public	<p>The Contractor shall follow the following management measures to reduce health risks to the construction workers and nearby community:</p> <p>Drainage Management</p> <p>Air Quality Management</p> <p>Noise and Vibration Management</p> <p>Road Transport and Road Traffic Management</p>
Trainings	Lack of awareness and basic knowledge in health care among the construction workforce, make them susceptible to potential diseases.	<p>The Contractor shall:</p> <p>Train all construction workers in basic sanitation and health care issues (e.g., how to avoid COVID-19, malaria and transmission of sexually transmitted infections (STI) HIV/AIDS.</p> <p>Train all construction workers in general health and safety matters, and on the specific hazards of their work Training should consist of basic hazard awareness, site specific</p>

3 .SOPs issued by the GoPunjab during COVID-19 Pandemic will be implemented

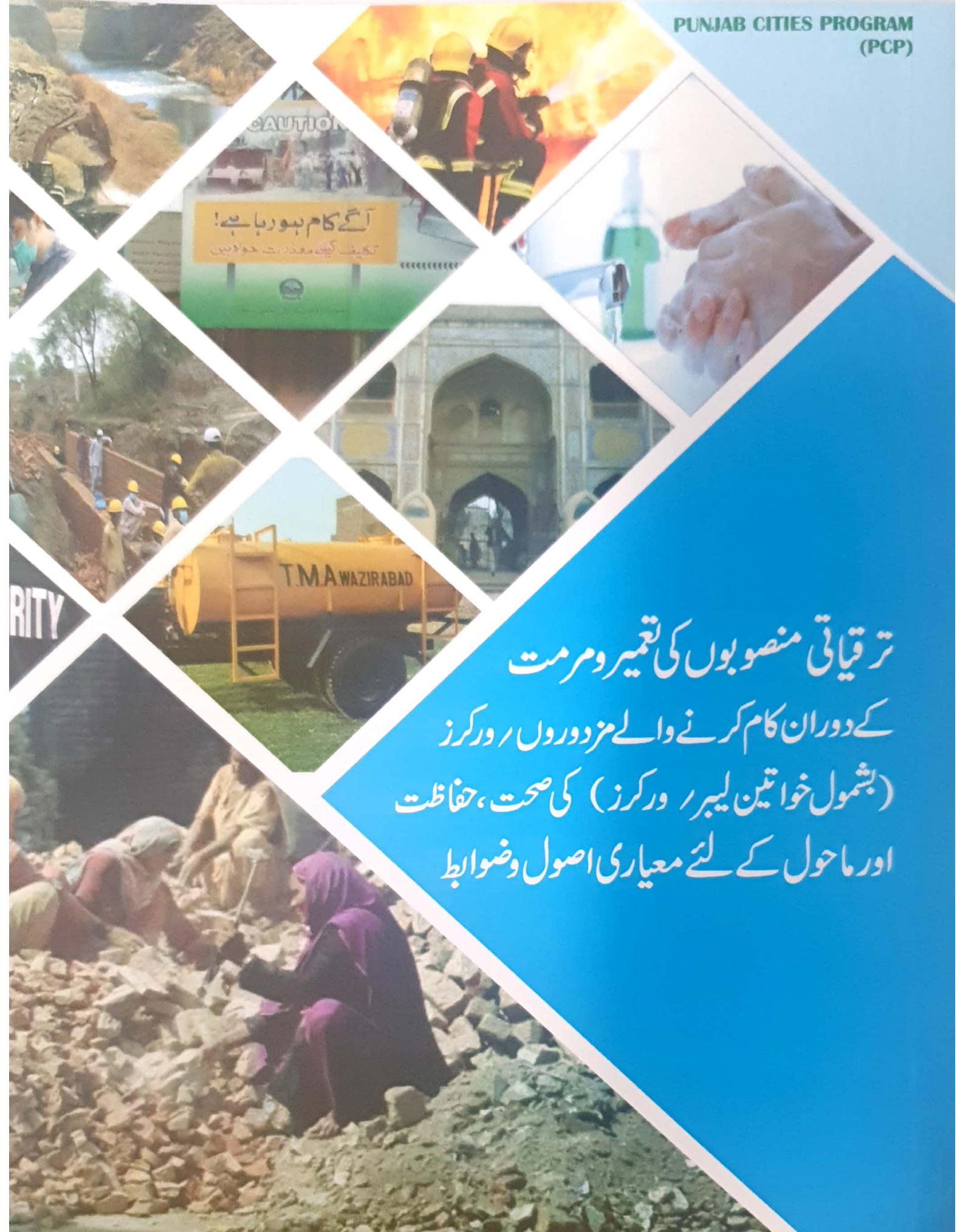
<b>Activity/ Impact Source</b>	<b>Impacts</b>	<b>Mitigation Measures/ Management Guidelines</b>
		<p>hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate.</p> <p>Commence the COVID-19, malaria, HIV/AIDS and STI education campaign before the start of the construction phase and complement it with by a strong condom marketing, increased access to condoms in the area as well as to voluntary counseling and testing.</p> <p>Implement COVID-19, malaria, HIV/AIDS and STI education campaign targeting all workers hired, international and national, female and male, skilled, semi- and unskilled occupations, at the time of recruitment and thereafter pursued throughout the construction phase on ongoing and regular basis. This should be complemented by easy access to condoms at the workplace as well as to voluntary counseling and testing.</p>

**Table 4: Summary of Recommended Personal Protective Equipment According to Hazard<sup>4</sup>**

<b>Objective</b>	<b>Workplace Hazards</b>	<b>Suggested PPE</b>
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits, aprons etc. of appropriate materials.

<sup>4</sup> Source: IFC Environmental, Health, and Safety (EHS) Guidelines





ترقیاتی منصوبوں کی تعمیر و مرمت  
کے دوران کام کرنے والے مزدوروں / ورکرز  
(بشمول خواتین لیبر / ورکرز) کی صحت، حفاظت  
اور ماحول کے لئے معیاری اصول و ضوابط

# حق اشاعت

جملہ حقوق محفوظ ہیں۔

اس اشاعت کا کوئی بھی حصہ پی ایم ڈی ایف سی (PMDFC) کی پیشگی اجازت کے بغیر کسی بھی شکل میں الیکٹرانکس، مکینیکل، فوٹوکاپی، ریکارڈنگ یا کسی اور طرح سے دوبارہ بنایا یا منتقل نہیں کیا جاسکتا۔



## پیش لفظ

لوکل گورنمنٹ اینڈ کمیونٹی ڈویلپمنٹ ڈیپارٹمنٹ اور پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) نے ورلڈ بینک کے اشتراک سے پنجاب سٹیٹس پروگرام (PCP) کا کامیابی سے اجرا کر دیا ہے۔ اس منصوبے کے تحت صوبہ پنجاب کے 16 چھوٹے شہروں (MCs) بشمول بہاولنگر، بورویالا، خانیوال، کوٹ ادو، وہاڑی، گوجرہ، جھنگ، کمالیہ، اوکاڑا، ڈسکہ، حافظ آباد، جہلم، کاموکی، مرید کی اور منڈی بہاؤالہ کی ترقیاتی کاموں پر کامیابی سے کام جاری ہے۔ ان ترقیاتی منصوبوں میں ویسٹ مینجمنٹ، پانی کی فراہمی، نکاسی آب اور کھنڈیوں کی مرمت، کمیونٹی پارکس کی بحالی اور قدرتی آفات کی روک تھام کے منصوبہ جات شامل ہیں۔

پنجاب سٹیٹس پروگرام (PCP) کے منصوبہ جات کی تکمیل کے دوران سماجی اور ماحولیاتی مسائل کی جانچ پڑتال اور اس کے حل کے لئے انوائرنمنٹل اینڈ سوشل سیف گارڈز (ESSs) ٹیم نے انوائرنمنٹل اینڈ سوشل مینجمنٹ فریم ورک (ESMF) بنایا ہے۔ مختلف منصوبہ جات اسی فریم ورک کی رو سے پایہ تکمیل تک پہنچ رہے ہیں۔

تعمیراتی اور ترقیاتی کاموں کی تکمیل میں تعمیراتی جگہوں پر کام کرنے والے مزدوروں (بشمول خواتین) کی صحت اور کام کرنے کے دوران حفاظت بہت اہمیت رکھتی ہے۔ اس اہم مسئلہ کو ملحوظ خاطر رکھتے ہوئے، پی ایم ڈی ایف سی کے زیر اہتمام پنجاب سٹیٹس پروگرام کی انوائرنمنٹ اینڈ سوشل مینجمنٹ ٹیم نے "ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں، ورکرز (بشمول خواتین لیبر ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول و ضوابط" مرتب کیے ہیں تاکہ متعلقہ میونسپل کمیٹیز/کارپوریشنز (MCs) کے عہدیداران اور ٹھیکیداران کو آگاہی فراہم کی جائے۔



## اغراض و مقاصد

۱۔ مجوزہ معیاری اصول و ضوابط پنجاب سیٹیز پروگرام (PCP) کے تحت پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) کے ماہرین ماحولیات نے پروگرام ڈائریکٹر (PCP) اور ڈپٹی پروگرام ڈائریکٹر (PCP) کی زیر نگرانی تشکیل دیئے ہیں۔

۲۔ شہری ترقی کے ترقیاتی منصوبہ جات کی تعمیر و مرمت میں مزدور/ورکرز بنیادی کردار ادا کرتے ہیں۔ ان (SOPs) کا بنیادی مقصد مزدور/ورکرز (بشمول خواتین لیبر/ورکرز) کو تعمیراتی جگہوں (Construction sites) اور لیبر کیمپس میں ماحولیاتی اور سماجی تحفظ فراہم کرنا اور صحت، ماحولیات اور کسی خطرناک صورتحال سے بچنے کے لئے حفاظت فراہم کرنا ہے۔

۳۔ یہ SOPs (PCP) پنجاب سیٹیز پروگرام کے تحت 16 شہروں کی میونسپل کمیٹیز/کارپوریشنز میں تعمیر و مرمت کے تمام پراجیکٹس پر لاگو ہوں گے۔

۴۔ یہ SOPs مزدوروں/کام کرنے والوں/دیہاڑی دار (بشمول خواتین) پر بلا تخصیص لاگو ہوں گے۔

۵۔ ان SOPs کو موثر اور یقینی بنانے کے لئے انھیں ٹھکیداروں کے کنٹریکٹ کا حصہ بنانا اور ان پر عمل درآمد کرنا میونسپل کمیٹیز/کارپوریشنز کی ذمہ داری ہے۔ جسے پی ایم ڈی ایف سی کی متعلقہ پروگرام ٹیم یقینی بنائے گی۔

## پیغام

پاکستان کی ترقی میں تعمیراتی کاموں کے دوران کام کرنے والا مزدور طبقہ نہایت اہمیت کا حامل ہے اور انکے صحت و تندرستی سے متعلق مسائل کا مؤثر حل انتہائی ضروری ہے۔ "ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں / ورکرز (بشمول خواتین لیبر ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول و ضوابط" کی اشاعت و



ترویج اور ان پر بروقت عمل درآمد بے حد ضروری ہے جس سے اس طبقے کے بنیادی حقوق کا تحفظ یقینی بنایا جاسکے گا اور اس طرح اس طبقے کی کارکردگی میں بھی بہتری نظر آئے گی۔ ان اصولوں کے تحت ہر ٹھیکیدار کو ورکرز کی صحت اور حفاظت کی ذمہ داری دی گئی ہے۔ مزدور تعمیراتی کاموں کے دوران خطرات کے مطابق ذاتی حفاظتی سامان بھی استعمال کریں گے جس سے دوران کام حادثات میں بھی نمایاں کمی نظر آئے گی۔ ماحولیات اور صحت کے اصولوں کو مد نظر رکھتے ہوئے ہر سطح پر ہم اس بات کو یقینی بنانے کی کوشش کریں گے کہ ہماری پالیسیاں اور طرز عمل فعال ہوں۔ ماحولیات، صحت اور حفاظت (EHS) کے اصولوں کو اپنانے میں کسی بھی قسم کا سمجھوتہ نہیں کیا جائے گا۔ میں امید کرتا ہوں کہ ان اصول و ضوابط کی روشنی میں مزدور / ورکرز (بشمول خواتین لیبر) کے حقوق کی پاسداری کو ایک نیا رخ ملے گا اور حکومتی عہدیداران اور ٹھیکیداران بھی اپنی ذمہ داریوں کا احساس کریں گے۔ اور اس سلسلے میں پی ایم ڈی ایف سی اور پنجاب سیٹییز پروگرام کی انوائرنمنٹ اینڈ سوشل سیف گارڈز (ESSs) ٹیم بلاشبہ مبارکباد کی مستحق ہے اور یہ توقع کی جاسکتی ہے کہ وہ مستقبل میں ان قواعد و ضوابط کی نگرانی کے لئے بھرپور اقدامات کریں گے۔

محمد عامر نذیر

پروگرام ڈائریکٹر  
پنجاب سیٹییز پروگرام (PCP)



## زیر نگرانی

### عاشق چوہدری

سینئر پروگرام آفیسر (انفراسٹرکچر)  
پنجاب سیٹیز پروگرام (PCP)

### افتخار رسول

ڈپٹی پروگرام ڈائریکٹر  
پنجاب سیٹیز پروگرام (PCP)

## تکنیکی ٹیم

### رضوانہ انجم

پروگرام آفیسر (انوائرنمنٹ اینڈ سوشل سیف گارڈز)  
پنجاب سیٹیز پروگرام (PCP)

### کنزلی ندیم

ریسرچ اینالسٹ  
پنجاب سیٹیز پروگرام (PCP)

### تہمینہ کرن

ڈپٹی پروگرام آفیسر (ESSs)  
پنجاب سیٹیز پروگرام (PCP)



# (۱) لیبر کیمپس کے لئے معیاری اصول و ضوابط

## سرگرمیاں

۱. مزدور / لیبر کیلئے عارضی کیمپ / رہائش گاہ کے انتظام و قیام کے لئے جگہ کا انتخاب

## مسائل

- ◆ مقامی آبادی کے وسائل پر اضافی بوجھ
- ◆ مقامی آبادی سے تنازعات کا خدشہ
- ◆ سماجی، مذہبی، اور سیورٹی کے مسائل۔

## حفاظتی اقدامات

تھیکیدار لیبر کیمپس کے قیام کے وقت مندرجہ ذیل باتوں کا خیال رکھے گا :

- ◆ کیمپس ایسی جگہوں پر لگائے جائیں جو ماحولیاتی، مذہبی، سماجی اور ثقافتی نقطہ نظر سے قابل قبول ہوں۔
- ◆ مقامی آبادی کے ساتھ کسی تنازعہ سے بچنے کے لئے آبادی سے دور جگہ کا انتخاب کیا جائے
- ◆ لیبر کیمپ کی جگہ اور سہولیات سے متعلق ایک تفصیلی نقشہ تیار کر کے متعلقہ میونسپل کمیٹی / کارپوریشن میں جمع کرایا جائے۔
- ◆ دیگر مقامی ادارے جیسے صحت، سیورٹی وغیرہ کو لیبر کیمپ کے مقام اور مدت کے بارے میں مطلع کیا جائے تاکہ کسی ناگہانی صورتحال سے بچا جاسکے۔
- ◆ لیبر کیمپس کے قیام کیلئے عارضی جگہ زمین کا حصول زمین کے مالک کی مرضی، طے کردہ کرایہ اور باقاعدہ تحریری معاہدے کی صورت میں کیا جائے۔
- ◆ لیبر کیمپس سے ملحقہ بنیادی سہولتوں جیسے پینے کا پانی اور نکاسی آب کے انتظامات سے ماحولیاتی آلودگی میں اضافہ نہ ہو





## سرگرمیاں

۲. لیبر کیمپ میں مہیا کی جانے والی سہولیات

## مسائل

- ◆ مناسب انفراسٹرکچر کی کمی
- ◆ بنیادی ضروریات اور سہولیات جیسے پانی اور بجلی کی فراہمی، صفائی ستھرائی کی سہولیات اور نکاسی آب کی فراہمی

## حفاظتی اقدامات

تھیکیدار کیمپ سائٹس پر درج ذیل باتوں کا خیال رکھے گا:

- ◆ ہوادار اور صاف ستھری رہائش گاہ
- ◆ عارضی کمروں کیلئے ایسے میٹریل کا استعمال جو جلد آگ نہ پکڑیں۔
- ◆ نہانے، دھونے اور پانی پینے کیلئے صاف اور مناسب پانی کی فراہمی۔
- ◆ تمام مزدوروں کیلئے مناسب جگہ کی موجودگی اور محفوظ ماحولیاتی معیار۔
- ◆ صاف ستھرے واش رومز اور نکاسی آب کا مناسب انتظام۔
- ◆ خواتین لیبر کیلئے پردے اور پرائیویسی کا انتظام اور الگ کمروں کا قیام مزید براں خواتین لیبر کی موجودگی کی صورت میں اُنکے لیے علیحدہ ٹوائلٹس رومز کا انتظام۔
- ◆ بین الاقوامی معیار کے مطابق ہر دس افراد کیلئے مطلوبہ ٹوائلٹ کی سہولت کی تعداد ایک ہے۔
- ◆ اگر لیبر کیمپ طویل مدت کیلئے لگایا جانا ہو تو بارشوں، سیلاب کے پانی سے بچنے کیلئے مناسب انتظامات کا ہونا اور نکاسی آب کی فراہمی بے حد ضروری ہے۔
- ◆ ٹوائلٹس اور عارضی رہائش گاہوں میں بجلی کی فراہمی کو یقینی بنایا جائے۔

## سرگرمیاں

۳. لیبر کیمپ سے پیدا ہونے والا سالت اور لیکونڈ ویسٹ

## مسائل

- ◆ تعفن اور بدبو
- ◆ صحت کے لئے نقصان
- ◆ ماحولیات کے لئے نقصان
- ◆ مقامی آبادی کے لئے نقصان
- ◆ بیماریاں پیدا کرنے والے بیکٹیریا اور مچھروں کا ذریعہ



انوائٹرنمنٹ اینڈ سوشل سیف گارڈ ٹیم

پی ایم ڈی ایف سی



## حفاظتی اقدامات

- ◆ روزمرہ پیدا ہونے والے کوڑا کرکٹ اور چکن کے کوڑا کرکٹ کے لیے الگ الگ کوڑا دانوں کا انتظام
- ◆ میونسپل کمیٹی رکارپوریشن کی جانب سے منتخب کردہ جگہ پر روزانہ کی بنیاد پر کوڑے کو اٹھانے اور تلف کرنے کا مناسب انتظام۔
- ◆ عارضی ٹوائلٹس سے پیدا شدہ فضلے اور لیکویڈ ویسٹ کو حفظان صحت کے اصولوں کے مطابق ٹھکانے لگانے کا انتظام۔
- ◆ فضلے کو ٹھکانے لگانے کے لیے رہائش گاہ سے کم از کم 500 میٹر دور جگہ کا انتخاب کیا جائے جس کے ارد گرد لوگوں کی رہائش نہ ہو۔
- ◆ عارضی ٹوائلٹس سے پیدا شدہ فضلے کو ٹھکانے لگانے کے لیے منتخب کردہ جگہ کے ارد گرد باڑا لگائی جائے یا درخت لگا دے جائیں تاکہ بچے اور دیگر رہائشی داخل نہ ہوں اور چھرا اور بدبو بھی پیدا نہ ہو۔

## سرگرمیاں

۴. کھانا پکانے کے لیے ایندھن کی فراہمی

## مسائل

- ◆ گیس اور دیگر ایندھن سے چلنے والے چولہوں کے پھٹنے کا اندیشہ
- ◆ ایندھن کے لیے لکڑی کے حصول کے لیے درختوں کی کٹائی

## حفاظتی اقدامات

ٹھیکیدار کیمپ سائٹس پر درج ذیل سہولیات مہیا کرے گا۔

- ◆ لیبر کیمپس میں کھانا پکانے، کمروں کے گرم رکھنے نیز سردیوں میں نہانے اور دھونے کے لیے گرم پانی کے لیے ایندھن کی لکڑی یا دیگر بائیو گیس استعمال کرنے کی حوصلہ شکنی کریں اور ایندھن کیلئے درختوں کی کٹائی نہ کریں۔
- ◆ درختوں اور ارد گرد جنگلات کی حفاظت کیلئے مزدوروں، لیبر کو آگاہی دی جائے۔
- ◆ کھانا پکانے کے لیے قدرتی گیس یا مٹی کے تیل کے محفوظ چولہے استعمال کیے جائیں۔





## سرگرمیاں

۵۔ جانوروں / پرندوں کا شکار خرید و فروخت

## مسائل

- ◆ جنگلی حیات کو خطرات
- ◆ ماحولیاتی وسائل کو خطرات

## حفاظتی اقدامات

◆ لیبر / مزدوروں کو گاہی فراہم کی جائے کیونکہ ارد گرد موجود کسی بھی قسم کی جنگلی حیات کو نقصان پہنچانا ، ان کے گھونسلوں / پناہ گاہوں میں کوئی مداخلت کرنا، شکار کرنا یا جانوروں / پرندوں کو قید کرنا اور خرید و فروخت کرنا، پنجاب وائلڈ لائف (پروٹیکشن، پریزرویشن، کنزرویشن اینڈ مینجمنٹ ایکٹ 1974) کے مطابق ممنوع اور سزا قابل تعزیر جرم ہے۔

## سرگرمیاں

۶۔ حفظانِ صحت کے اصول

## مسائل

◆ حفظانِ صحت کے رہنما اصولوں پر عملدرآمد کرنے کی صورت میں مختلف بیماریاں مثلاً کرونا وائرس، ملیئریا اور ایچ آئی وی ایڈز اور دیگر انفیکشنز کے پھیلنے کا خطرہ کم ہوگا۔

## حفاظتی اقدامات

تھیکیدار لیبر کیمپس میں درج ذیل انتظامات مہیا کرے گا:

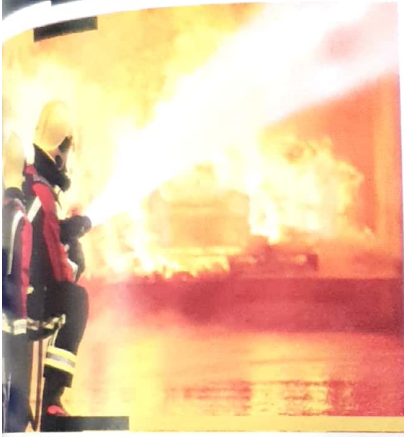
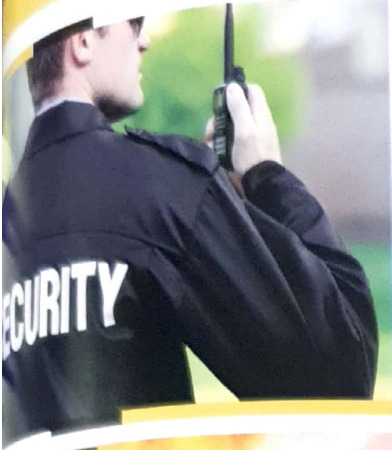
- ◆ لیبر کیمپس میں صحت و صفائی کی مناسب سہولیات کی فراہمی
- ◆ بیرونی علاقوں سے آنے والے مزدوروں کی صحت کی ابتدائی سکریننگ

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انوائرنمنٹ اینڈ سوشل سیف گارڈز ٹیم

- ◆ چوبیس گھنٹے لیبر کیمپس میں پرفرسٹ ایڈیکس کی سہولت موجود ہو۔ کیمپ سائنس میں ابتدائی طبی امداد سے متعلقہ دواؤں کا موجود ہونا یقینی بنایا جائے۔ اور طویل المدتی کیمپ کی صورت میں کسی ڈسپنسر رڈاکٹر کیمپ میں موجود ہونا چاہئے۔
- ◆ کسی ایمرجنسی کے دوران مزدوروں کے لیے ایمرجنسی کی سہولت فراہم کی جائے اور ایمرجنسی سروسز 1122 یا 15 پر کال کرنے کے لیے ٹیلیفون رموبال کی سہولت مہیا کی جائے۔
- ◆ حفظانِ صحت کے بہترین اصولوں، صفائی ستھرائی اور صحت کی دیکھ بھال کے امور کیلئے مزدوروں/لیبر کو تربیت فراہم کی جائے جس میں تمام مزدوروں کی شرکت کو یقینی بنایا جائے۔
- ◆ جنسی طور پر منتقل ہونے والی بیماریوں اور ایڈز وغیرہ کے بارے میں مزدوروں کو مکمل معلومات فراہم کی جائیں اور ان بیماریوں سے بچنے کے لیے حفاظتی اصول اپنانے پر زور دیا جائے۔
- ◆ چھڑوں اور دیگر بیکٹیریا کو پیدا ہونے سے روکنے کیلئے حفاظتی سپرے لازمی کرائے جائیں۔
- ◆ کرونا سے بچنے کے لیے ابتدائی سکریننگ یقینی بنائیں اور بار بار ہاتھ دھونے پر زور دیں اور علامات ظاہر ہونے پر فوری طور پر دیگر مزدوروں سے آئسولیشن کے مکمل اصولوں پر سختی سے عمل کیا جائے۔
- ◆ لیبر کیمپس کے اندر مناسب مقامات پر حفظانِ صحت کے اصولوں سے متعلقہ پیغامات اور طریقے ڈسپلے کیے جائیں اور تربیتی پروگرام کا اہتمام کیا جائے۔
- ◆ قریبی ڈسپینسری/ہیلتھ کلینک/ہسپتال کے رابطہ نمبر وغیرہ واضح مقامات پر آویزاں کئے جائیں۔



## سرگرمیاں

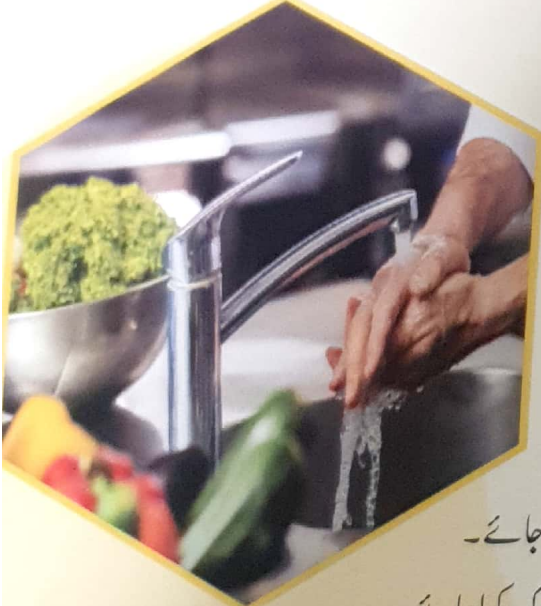
۷. سکیورٹی اور حفاظت کی سہولیات

## مسائل

- ◆ سکیورٹی کے مسائل
- ◆ چوری کا خطرہ
- ◆ دہشت گردی کا خطرہ
- ◆ آگ لگنے کے خطرات

## حفاظتی اقدامات

- ◆ کیپ کے گرد حفاظتی باڑی فراہمی
- ◆ حفاظتی اہلکار (پولیس یا نجی سکیورٹی گارڈز / ہوم گارڈ وغیرہ) کی تعیناتی
- ◆ کیپ میں موجود افراد کی صحیح تعداد اور آمدورفت کا حساب کتاب رکھنے کے لیے رجسٹر میں اندراج۔
- ◆ آگ سے بچاؤ کے لیے لیبر کیپ بنانے میں ایسا کوئی میٹریل استعمال نہ کیا جائے جس سے آگ لگنے کا اندیشہ ہو۔
- ◆ بارش، طوفان، سیلاب وغیرہ سے بچنے کیلئے اس بات کو یقینی بنایا جائے کہ کیپ سائٹ اور عارضی کمرے / ہائٹس گاہیں محفوظ رہیں۔
- ◆ لیبر کیپس میں آگ بجھانے والی آلات موجود ہوں جن پر انکی آخری معیاد کی تاریخ درج ہو۔ اور سکیورٹی گارڈ یا لیبر وغیرہ میں سے نمایاں افراد کو آگ بجھانے والے آلہ استعمال کرنے کی تربیت دی جائے۔
- ◆ لیبر کیپ میں واضح مقامات پر ہنگامی ایمر جنسی رابطہ نمبر نمایاں درج ہوں۔
- ◆ ٹھیکیدار، لیبر کے ساتھ ماہانہ میٹنگز میں ایمر جنسی کی صورت میں ہر ایک مزدور کو اسکی ذمہ داریوں اور تربیت سے آگاہ کرے اور اسکی تفصیلات کنسلٹنٹ اور میونسپل کمیٹی رکارڈز پر اپڈیشن کو فراہم کرے۔ اور کسی بھی قسم کی شکایات ایک رجسٹر میں درج کرے۔



## سرگرمیاں

۸. حفظانِ صحت کے اصولوں پر مبنی خوراک (Food Safety)

## مسائل

◆ فوڈ پوائزنگ کا خدشہ

◆ بیماری کا ڈر

## حفاظتی اقدامات

◆ مزدوروں کو صاف ستھرے اور تازہ کھانے کی فراہمی کو یقینی بنایا جائے۔

## سرگرمیاں

۹. مذہبی و سماجی میل جول

## مسائل

◆ مذہبی عبادات میں رکاوٹ

◆ سماجی تعلقات میں دشواری

◆ سماجی، ثقافتی اور مذہبی خیالات میں شدت پسندی یا لڑائی جھگڑا وغیرہ

## حفاظتی اقدامات

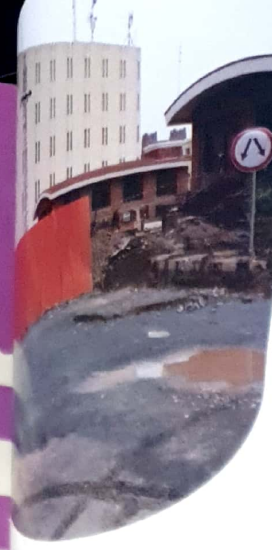
◆ مزدوروں ریلیبر کو ان کے مذہب اور فرقے کے مطابق مذہبی عبادات کی سہولیات فراہم کرنا۔

◆ خواتین لیبر کی موجودگی کی صورت میں ان کے لیے علیحدہ وضو، نماز اور پردے کا اہتمام کیا جائے۔

◆ تمام مزدوروں کی مذہبی، ثقافتی یا فرقے کی وابستگی سے قطع نظر غیر متعصبانہ اور برابری کا سلوک کیا جائے۔

◆ مزدوروں کو تعمیراتی کام کے دوران نماز میں شرکت کرنے یا دیگر عبادات کی اجازت دی جائے اور اس سلسلے میں مذہبی اور سکیورٹی امور کے ذمہ دار

مقامی حکام کو تعمیراتی کاموں کے آغاز سے پہلے باضابطہ طور پر آگاہ کیا جائے تاکہ صحت عامہ، معاشرتی اور حفاظتی امور پر موثر نگرانی برقرار رہ سکے۔



## سرگرمیاں

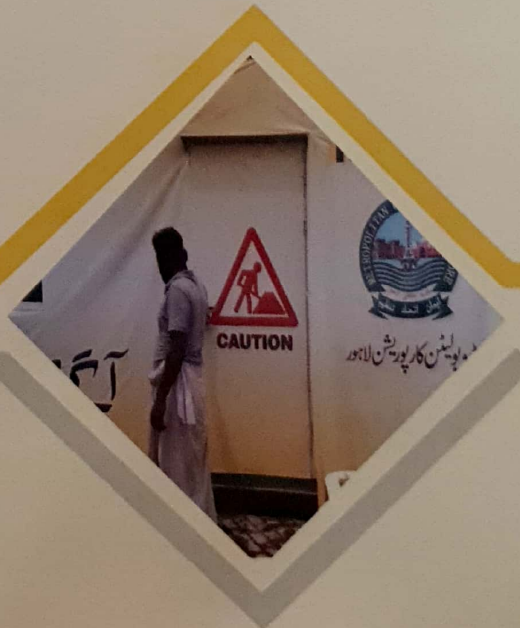
10. تعمیراتی کام ختم ہونے کے بعد کی ذمہ داریاں

## مسائل

◆ فالتو سامان اور کوڑا کرکٹ کی گندگی

## حفاظتی اقدامات

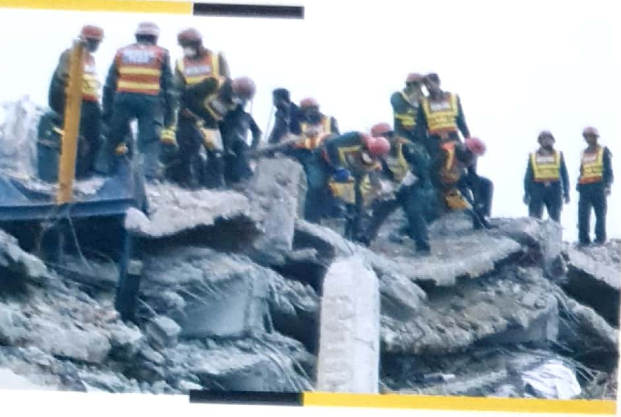
- ◆ کیپ سائٹ کو اصل حالت میں بحال کیا جائے۔
- ◆ تعمیراتی کام کے مکمل ہونے پر فریم اور باڈی لگنے والے دروازوں سمیت لیبر کیپ میں قائم تمام سہولیات کو ایسے ختم کیا جائے کہ وہاں کا کوئی کام نہ رہے۔
- ◆ کام مکمل ہونے کے ساتھ لیبر کیپ کو مرحلہ وار ختم کیا جائے (پورے کام کی تکمیل کا انتظار نہ کریں)
- ◆ لیبر کیپ کو مسما کرنے کے دوران شور اور کسی بھی قسم کی آلودگی مثلاً گرد و غبار، آبی آلودگی وغیرہ پھیلانے سے گریز کریں۔
- ◆ مسما شدہ ملبہ کو دوبارہ استعمال کرنے اور دوبارہ قابل استعمال کرنے کیلئے کسی لوکل ڈیلر/ٹھیکیدار کی خدمات حاصل کریں۔
- ◆ کوڑا کرکٹ اور دوبارہ ناقابل استعمال سامان کو متعلقہ میونسپل کمیٹی/کارپوریشن کی جانب سے مقرر کردہ مقام پر مناسب طریقے سے تلف کیا جائے۔
- ◆ لیبر کیپ کی زمین رجگہ کے مالک کے ساتھ طے شدہ معاہدے کے مطابق کام کریں اور کسی بھی قسم کے اختلاف یا جھگڑے سے گریز کریں۔
- ◆ جگہ کو متفقہ منصوبہ کے مطابق اسکے حوالے کیا جائے۔
- ◆ لیبر مزدوروں سے آئندہ کام یا مراعات کے چھوٹے وعدے ہرگز نہ کیے جائیں۔



انوائٹمنٹ اینڈ سوشل سیف گارڈ

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## سرگرمیاں

### ۱. تمام قسم کے تعمیراتی سرگرمیاں اور کام

### مسائل

- انجریز اور چوٹیں وغیرہ
- نامناسب دیکھ بھال اور بروقت امداد نہ ملنے کی باعث ہلاکت
- دہشت گردی اور سیوریٹی سے متعلق خطرات

### حفاظتی اقدامات

- تمام مزدوروں / لیبر سے مقامی / بین الاقوامی معیار کے مطابق مناسب حفاظتی اور قانونی ضوابط کی پیروی کروائی جائے۔
- کام کی جگہ پر ارد گرد کے علاقوں میں موجود دہشت گردی اور سیوریٹی کے خطرات کے مطابق حکمت عملی کی بروقت تیاری اور ایک محفوظ و صحت مند ماحول مہیا کیا جائے۔
- مزدوروں / لیبر کیلیے ذاتی حفاظت کے سامان (PPEs) کی فراہمی مثلاً حفاظتی جوتے، ہیلمٹ، ماسک، دستانے، حفاظتی لباس، چشمے، چہرے اور کان کی حفاظت کے سامان وغیرہ کی فراہمی
- تمام مزدوروں / لیبر کو ذاتی حفاظت کے ساز و سامان کے بارے میں مکمل آگاہی اور استعمال کے طریقے کار کے بارے میں تربیت کا انتظام۔
- اگر تعمیراتی کام ایک ماہ سے زائد عرصہ کیلئے جاری رہنا ہو تو تمام مدت کے لیے صحت، صفائی اور تربیت یافتہ ماحولیات کی تعیناتی کی جائے جو مزدوروں کی صحت، صفائی اور ماحولیات کے امور کی نگرانی کرے اور انہیں تربیت و آگاہی فراہم کرے۔
- تعمیراتی کاموں کے دوران کسی چوٹ لگنے / انجریز کی صورت میں مزدور / لیبر کے علاج معالجے کی سہولت مہیا کرنا اور بروقت ہسپتال / ڈسپنسری وغیرہ پہنچانا ٹھیکیدار کی ذمہ داری ہے۔
- مزید برآں دوران تعمیراتی کام کی وجہ سے لگنے والی چوٹ / انجریز کے نتیجے میں ہلاکت ہو جانے کی وجہ سے مزدور / لیبر کی انشورنس اور اس کی بروقت ادائیگی کو یقینی بنایا جائے۔
- ایمرجنسی رابطہ نمبر مثلاً ریسکیو 1122 یا 15 اور دیگر قریبی ہسپتالوں / ڈسپنسری وغیرہ کے نمبر تعمیراتی جگہوں پر واضح درج ہونے چاہیں اور کال کی سہولت فراہم کی جائے۔
- شہری ترقی کے تعمیراتی منصوبہ جات کے آغاز سے قبل صحت، مذہبی امور اور شہری تحفظ / سیوریٹی فراہم کرنے والے مقامی اداروں کو آگاہ رکھا جائے اور اس سلسلے میں متعلقہ میونسپل کمیٹی / رکارپوریشن کے تعاون سے موثر حکمت عملی تشکیل دی جائے۔

## سرگرمیاں

۲. تمام قسم کی تعمیراتی سرگرمیاں اور کنسٹرکشن کے کام

## مسائل

- ◆ 15 سال سے کم عمر بچوں کی صحت اور تعلیم کا نقصان
- ◆ 18 سال اور اس سے کم عمر بچوں کی صحت کا نقصان
- ◆ حاملہ مزدور عورتوں کی صحت سے متعلقہ خطرات

## حفاظتی اقدامات

- ◆ دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 15 سال سے کم عمر بچوں کو مزدوری یا کسی سرگرمی کے لیے کام پر نہیں رکھا جاسکتا۔
- ◆ ویسٹ پاکستان میٹرنٹی بٹیفٹ آرڈیننس 1958 کے مطابق حاملہ خواتین یا ایسی خواتین جنہوں نے چھ ہفتے قبل بچے کو جنم دیا ہو، کو مزدوری یا کسی سرگرمی کے لیے کام پر نہیں رکھا جاسکتا۔
- ◆ دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 18 سال اور اس سے کم عمر کے بچوں کو محنت مزدوری کے ایسے کام کے لیے نہیں رکھا جاسکتا جن میں صحت کو نقصان پہنچنے یا چوٹ لگنے یا کسی کیمیائی زہریلے مادے سے نقصان پہنچنے یا جہاں ہڈی ٹوٹنے کا اندیشہ ہو۔



انوائرنمنٹ اینڈ سوشل سیف گارڈز ٹیم

پی ایم ڈی ایف سی

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## سرگرمیاں

۳. دوران تعمیر حادثات کا پیش آنا

## مسائل

- ◆ فوری طبی امداد کی کمی
- ◆ اردگرد کے علاقوں میں ابتدائی طبی سہولیات اور صحت عامہ کا فقدان

## حفاظتی اقدامات

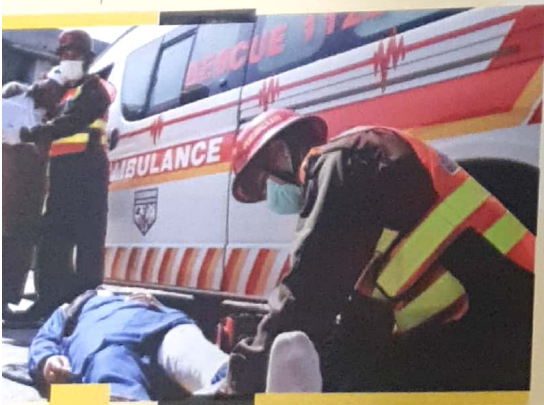
◆ تعمیراتی جگہ پر فرسٹ ایڈ باکس کی موجودگی کہ یقینی بنایا جائے اور فرسٹ ایڈ باکس میں تمام ضروری ادویات اور طبی امداد کا ضروری سامان موجود ہو۔

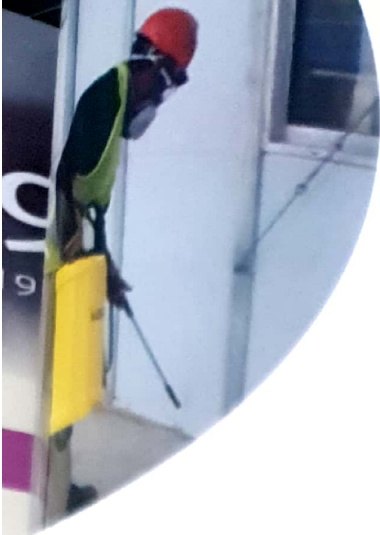
◆ تعمیراتی کاموں کے دوران پیش آنے والے حادثات بیمار یوں اور واقعات کا مکمل ریکارڈ رکھا جائے۔ اسی طرح حادثات کی نوعیت و وجوہات کا مکمل ریکارڈ موجود ہو۔

◆ مزدوروں کی صحت و سیورٹی سے متعلق ممکنہ خطرات کی بروقت نشاندہی کی جائے خاص کر وہ خطرات جو جان لیوا ثابت ہو سکتے ہیں۔ اور ضروری حفاظتی اقدامات بروقت کئے جائیں۔

◆ تعمیراتی کاموں سے متعلق مشینری چلانے والے ڈرائیوروں کو دوران ڈرائیونگ قواعد و ضوابط پر سختی سے عملدرآمد کرانے کے لئے آگاہی فراہم کی جائے۔

◆ تعمیراتی علاقوں اور سڑکوں کے ساتھ ساتھ روشنی کا معقول انتظام ہو۔





## سرگرمیاں

۴. تعمیراتی مقامات پر پانی اور صفائی ستھرائی کی سہولیات اور سالڈ ویسٹ مینجمنٹ

## مسائل

- ♦ صحت کو خطرہ
- ♦ ارد گرد علاقے کے لوگوں کے لئے ناگواری کا باعث
- ♦ چھردوں اور دیگر بیکٹیریا کی افزائش نسل کا ذریعہ

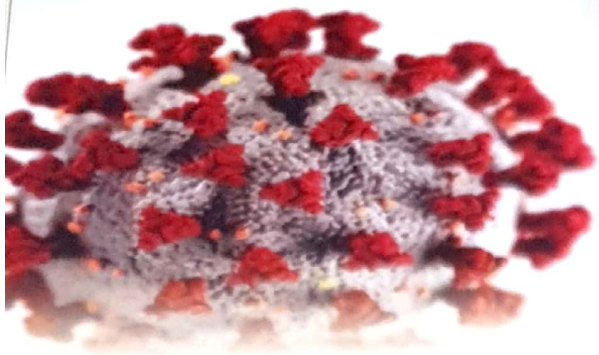
## حفاظتی اقدامات

- ♦ تعمیراتی جگہوں پر تمام مزدوروں کے لئے پینے کے لئے صاف ستھرا پانی مہیا کیا جائے۔
- ♦ اگر تقریباً 25 مزدور ایک مہینہ کے لئے سارا دن کام کر رہے ہوں تو ان کے لئے تعمیراتی جگہوں پر پورٹ ایبل ٹوائلٹ کا انتظام کیا جائے جو مقامی ڈرنیج سسٹم سے ملحق ہوں اور مقامی ڈرنیج سسٹم کی غیر موجودگی میں مقامی ندی نالوں وغیرہ سے کم از کم 6 میٹر کے فاصلے پر ہوں۔ مزید برآں پورٹ ایبل ٹوائلٹس کی صفائی ستھرائی کو روزانہ کی بنیاد پر یقینی بنایا جائے۔
- ♦ تعمیراتی کاموں کے دوران کھدائی سے حاصل شدہ گارا، مٹی، ریت، کنکریٹ وغیرہ کو تعمیراتی جگہ پر ایک دن سے زائد مدت کے لئے کھلانا نہ دیا جائے۔ اور روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی رکارڈ پر پوریشن کی جانب سے مقرر کردہ جگہ پر مناسب طریقے سے ٹھکانے لگایا جائے۔

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انوائٹمنٹ اینڈ سوشل سیف گارڈز



# COVID-19

CORONAVIRUS DISEASE 2019

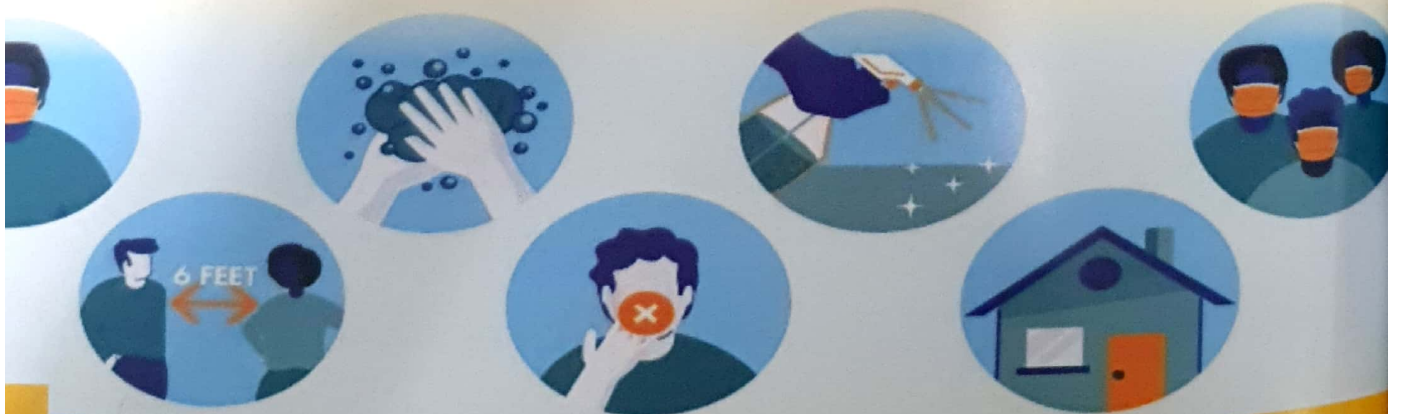
## سرگرمیاں

کرونا وائرس کی وبا کے دوران حفاظتی تدابیر

## حفاظتی اقدامات

گورنمنٹ آف پنجاب اور ورلڈ بینک کی ہدایات کے مطابق کرونا کی وبا کے دوران درج ذیل حفاظتی اقدامات کی پابندی کروانا کنٹریکٹر کی ذمہ داری ہے :




- ◆ کرونا وائرس کی وبا کے دنوں میں کنسٹرکشن سائٹ پر ہاتھ دھونے کیلئے پانی (پورٹ ایبل ہینڈ واشنگ کی سہولت) اور صابن مہیا کیا جائے اور لیبر کو بار بار صابن سے ہاتھ دھونے کی تلقین کی جائے۔
- ◆ لیبر کیمپس میں اور کنسٹرکشن سائٹ پر سوشل ڈسٹینسنگ (6m کا فاصلہ) کے اصولوں کو مدنظر رکھا جائے۔
- ◆ کرونا وائرس کی وبا کے دوران اس بات کا خاص خیال رکھا جائے کہ اگر کنسٹرکشن سائٹ پر آبادی میں وبا پھیلی ہوئی ہے تو آبادی اور مقامی لوگوں سے دور رہیں اور کسی قسم کا میل جول نہ رکھیں۔ اسی طرح اگر کوئی مزدور وبا کے علاقے سے روزانہ کی بنیاد پر آ رہا ہے تو اسے باقی لوگوں/مزدوروں سے میل جول سے دور رکھا جائے۔
- ◆ اگر کسی مریض میں وائرس کی علامات (خشک کھانسی، نزلہ، زکام، بخار وغیرہ) پائی جائیں تو اسے فوراً دوسرے مزدوروں سے آئسولیٹ کر دیا جائے اور ٹیسٹ کروانے کیلئے کہا جائے۔
- ◆ وبا کے دوران کنسٹرکشن سائٹ پر دیگر PPEs کے ساتھ ساتھ مزدوروں کو ماسک لازمی استعمال کرایا جائے۔













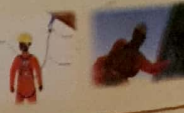
پی ایم ڈی ایف سی

افواہرمنٹ اینڈ سوشل سیف گارڈز ٹیم

# تعمیراتی کاموں کے دوران خطرات / حادثات سے بچنے کیلئے سامان برائے ذاتی حفاظت کا خلاصہ

تصویریں	تجویز کردہ سامان برائے ذاتی حفاظت	تعمیراتی کام	مقصد
	حفاظتی عینکیں	اڑنے والے ذرات کا استعمال جیسے پکھلی ہوئی دھات مائع کیمیکل، گیسوں، اور بخارات، روشنی کی شعاعیں۔	آنکھوں اور چہرے کی حفاظت / تحفظ
	اوپر اور اطراف سے نقصان سے بچاؤ کیلئے پلاسٹک کے ہیلمٹ	ایسے تمام کام جن میں گرنے کا خطرہ ہو، بلندی پر کام کرنا، تعمیراتی کام کو سنبھالنے اور دوسری جگہ پر منتقل کرنے والے کام۔	سر کی حفاظت / تحفظ
	سماعت کی حفاظت کے آلہ جات جیسے کن پوٹ یا ایئر پلگ	کھدائی / شور پیدا کرنے والے کام یا بھاری مشینری استعمال کرنے کی وجہ سے شور۔	سماعت کی حفاظت / تحفظ
	پہننے اور گرنے والی اشیاء، مائع اور کیمیائی مواد سے بچاؤ کیلئے حفاظتی جوتے یا بوٹ	تمام تعمیراتی کام جن میں چیزوں کا گرنا یا گھمانا، نوکیلی اشیاء شامل ہوں۔ گلانے والا یا گرم مائع، کچرے کے ڈھیر سے کچرا اٹھانا۔	پاؤں کی حفاظت / تحفظ
	رہڑیا مصنوعی مواد (نیوروپین)، چمڑا، سٹیل، غیر موصل مواد سے بنے گلووز	جسمانی صحت کیلئے نقصان دہ سامان جیسے کچرے کو سنبھالنا، ایسے کام جس میں کاٹ یا گہرے زخم لگنے کا اندیشہ ہو، ارتعاش، بہت زیادہ درجہ حرارت۔	ہاتھوں کی حفاظت / تحفظ
	ایک جگہ سے دوسری جگہ لے جانے والے یا ایک ہی جگہ پڑے مواد کی فراہمی تعمیراتی جگہ پر بچاؤ کا سامان	دھول، دھند، شعلے، گیسوں، دھواں، بخارات	تحفظ تنفس
	چہرے کے ماسک جن میں دھول ہٹانے اور ہوا کو صاف رکھنے کیلئے (کیمیائی مواد، دھند، بخارات اور گیسوں سے) مناسب فلٹر لگے ہوں	آکسیجن کی کمی	جسم / ٹانگوں کی حفاظت / تحفظ
	مناسب میٹرل سے بنے غیر موصل کپڑے، اسپرن وغیرہ	تمام کام جن میں شدید درجہ حرارت، نقصان دہ مواد، حیاتیاتی ایجنٹ، چھوٹے یا گہرے زخم لگنے کا اندیشہ ہو	اونچائی پر کام کرتے ہوئے حفاظت
	ہیلمٹ، حفاظتی عینکیں، ریشم کے گلووز اور ربڑ کے بوٹ	تمام تعمیراتی کام جو 4 فٹ یا اس سے زیادہ کی اونچائی پر کے جانے ہوں بشمول سٹریٹ لائٹس وغیرہ	اونچائی پر کام کرتے ہوئے حفاظت
	اینٹکر، بیلٹ، رسی، کنیکٹر، سہلے، تہہ جگہ اور ایک ساتھی فرد	تمام تعمیراتی کام جو 4 فٹ یا اس سے زائد اونچائی پر مسلسل ایک دن کیلئے کیے جانے ہوں	اونچائی پر کام کرتے ہوئے حفاظت

# Summary of Recommended Personal Protective Equipment According to Hazard

Objective	Workplace Hazards	Suggested PPE	Pictures
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.	
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.	
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).	
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.	
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.	
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.	 
	Oxygen deficiency	Portable or supplied air (fixed)	
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and	Insulating clothing, body suits, aprons etc.	
Working at *height	Rehabilitation Projects	Helmet, Safety glasses,	
	New Construction Projects	Anchor, belt, lanyard,	

\*In general, use of PPEs is required for any height of 4 ft or more. Ref: OSHA standards

۲۰ پی ایم ڈی ایف سی

وائرنمنٹ اینڈ سوشل سیف گارڈز ٹیم

### (3) مقامی آبادی روکنا داروں اور رہائشیوں کی صحت، ماحولیات اور سماجیات سے متعلق رہنما اصول و حفاظتی تدابیر

#### سرگرمیاں

۱. تعمیراتی کاموں کے لئے منتخب کردہ مقام / جگہ پر کام کا آغاز

#### مسائل

- ◆ مقامی آبادی رہائشیوں کیلئے تعمیراتی کام کی عدم آگاہی
- ◆ لیبر مزدوروں کے داخلے سے رہائشی عورتوں کے پردے اور پرائیویسی کے مسائل
- ◆ مقامی آبادی کے ثقافتی، سماجی، مذہبی ورثہ، اور تاریخی مقامات و عمارتوں کو نقصان

#### حفاظتی اقدامات

تھیکیدار کو چاہئے کہ:

- ◆ متعلقہ میونسپل کمٹی کے انوائزمنٹ اینڈ سوشل فوکل پرسن (ز) منتخب کردہ اور متعلقہ ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (انوائزمنٹ اینڈ سوشل سیف گارڈز) کی موجودگی میں مقامی آبادی رہائشیوں اور دکانداروں کو تعمیراتی کام کے آغاز سے قبل تعمیراتی کام کی نوعیت، اغراض و مقاصد اور تکمیل کی معینہ مدت کے بارے میں مکمل آگاہی فراہم کرے۔
- ◆ تعمیراتی کام کے دوران پیش آنے والے ممکنہ سماجی اور ماحولیاتی مسائل اور ان کے مطابق حفاظتی اقدامات کے بارے میں مقامی رہائشیوں اور دکانداروں کو کام کے آغاز سے قبل مکمل آگاہی دی جائے۔
- ◆ تعمیراتی کام کے آغاز سے پہلے مقامی رہائشیوں اور دکانداروں کو تعمیراتی کاموں کی وجہ سے سماجی اور ماحولیاتی مسائل کی نکاحی ریشلیاں، تجاویز کیلئے مندرجہ ذیل رابطہ نمبرز کے بارے میں مکمل آگاہی فراہم کی جائے۔
  - (a) تھیکیدار کا موبائل ریٹیلیفون نمبر
  - (b) متعلقہ میونسپل کمٹی کے کارپوریشن کے فوکل پرسن (ز) کے رابطہ نمبرز
  - (c) متعلقہ (PCP) ریجنل آفس میں تعینات ڈپٹی پروگرام آفیسر (ESSs) کے رابطہ نمبرز
- ◆ تعمیراتی کام کے آغاز سے پہلے تعمیراتی مقام پر جگہ کو فیتہ کی مدد سے باقی علاقہ سے الگ کر دیا جائے۔



تعمیراتی جگہ پر واضح بورڈ نصب کر دیئے جائیں، جن پر درج ذیل پیغامات اور احکامات لکھے ہوں:

(a) تعمیراتی کام کی نوعیت

(b) ٹریفک میں رکاوٹ کی صورت میں متبادل راستے کا نشان اور عارضی رکاوٹ کا پیغام

(c) ایئر جنسی اور شکایت کیلئے رابطہ نمبرز

(d) (PMDFC) کی جانب سے جاری کردہ سماجی و ماحولیاتی پیغامات پر مبنی پوسٹرز۔

تعمیراتی کام کی جگہ کے ارد گرد 100 میٹر تک کی حدود میں موجود ثقافتی، سماجی، مذہبی ورثہ، تاریخی عمارتوں اور مذہبی مقامات جیسے قبرستان، مساجد، مندر، گرجا گھروں وغیرہ کو کسی قسم کا نقصان نہ پہنچایا جائے اور ان کی حدود میں کوڑا کرکٹ ڈالنے یا خالتوپانی چھوڑنے سے گریز کیا جائے۔ مزید برآں کھدائی کے دوران کسی نئے آثارِ قدیمہ ملنے کی صورت میں متعلقہ مقامی محکمے سے رجوع کیا جائے اور کھدائی کا کام بند کر کے تعمیراتی کام روک دیا جائے۔

## سرگرمیاں

2- کھدائی کی جگہ اور اس سے متعلقہ کام اور نالوں کی صفائی اور اس سے حاصل شدہ بھل وغیرہ

## مسائل



کھدائی سے حاصل شدہ مٹی رکنکر کے ڈھیر (Debris) سے رہائشیوں کی آمدورفت اور ٹریفک میں رکاوٹ

مقامی رہائشیوں کیلئے ناگواری کا باعث

پتھروں اور دیگر بیماری پھیلانے والے جراثیم کی افزائش کا ذریعہ

کھدائی کی جگہ پر گرنے اور حادثات کے خطرات

## حفاظتی اقدامات

- ◆ تعمیر کے دوران کھدائی کے تمام مقامات کے ارد گرد حفاظتی ٹیپ رپٹی لگائی جائے اور کھدائی کی جگہ کو عارضی طور پر بند کر دیا جائے جس کے باہر اس جگہ سے دور رہنے کیلئے واضح پیغامات لکھے ہوں۔
- ◆ کھدائی سے حاصل شدہ مٹی رکنکر پتھر وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر متعلقہ میڈیکل کمیٹی رکارڈ پوریشن کی منتخب کردہ جگہ پر محفوظ طریقے سے ٹھکانے لگایا جائے۔
- ◆ نالوں کی صفائی سے حاصل شدہ بھل ریت وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر اٹھوایا جائے اور بھل و ایک جگہ سے دوسری جگہ منتقلی کے دوران ٹریکٹر/ٹرائی کو تریپال کی مدد سے ڈھانپ کر لے جایا جائے۔

## سرگرمیاں

3- تعمیراتی مشینری / تعمیراتی مٹیریل اور تعمیراتی کاموں کی وجہ سے عارضی بندش

## مسائل

- ◆ ٹریفک میں رکاوٹ۔

## حفاظتی اقدامات

- ◆ ٹریفک میں ممکنہ رکاوٹ کے پیش نظر متبادل راستے کا انتخاب اور اس کی نشاندہی کیلئے پیغامات واضح درج کیے جائیں۔
- ◆ ٹریفک کونز (cones) کی مدد سے رکاوٹ والی جگہ کو الگ کر دیا جائے تاکہ حادثات سے بچا جاسکے۔
- ◆ ٹریفک میں زیادہ دنوں تک مسلسل رکاوٹ کی صورت میں مقامی ٹریفک پولیس کو آگاہ کیا جائے اور ان کے ساتھ مل کر ٹریفک مینجمنٹ پلان کو تشکیل دیا جائے جس کو واضح مقام پر نصب کیا جائے اور مقامی آبادی رہائشیوں کو اس کے بارے میں مکمل آگاہی دی جائے۔



پی ایم ڈی ایف سی

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انوائٹ مینٹ اینڈ سوشل سرف گارڈز ٹیم



## سرگرمیاں

4- تعمیراتی کاموں کی وجہ سے راستوں میں عارضی رکاوٹ اور زمین کا عارضی حصول

## مسائل

- روزمرہ معمولات اور کاموں میں رکاوٹ
- رہائشی خواتین کیلئے آنے جانے میں رکاوٹ
- دکانداروں کے دکانوں کے آگے رکاوٹیں اور گاہکوں کیلئے مشکلات
- مستقل و عارضی سائز لگا کر بیچنے والے چھوٹے بڑے مستقل دکانداروں کا گاہک کم ہو جانے کی وجہ سے مالی نقصان

## حفاظتی اقدامات

- تعمیراتی علاقے میں ارد گرد موجود تمام چھوٹی بڑی دکانوں، ٹھیلوں، عارضی خوانچہ فروشوں اور گھروں کا مکمل سروے (تعداد اور مالی حیثیت وغیرہ) اور ان پر ممکنہ سماجی اور ماحولیاتی اثرات کا جائزہ لے کر ایک تفصیلی رپورٹ اور متعلقہ پلان میونسپل کمیٹی رکارپوریشن کے دفتر میں موجود ہونی چاہئے جو کہ فوکل پرسنز، متعلقہ علاقائی آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) کے ساتھ تعمیراتی کاموں کی مالیت کا اندازہ لگائے وقت تیار کیا جائیگی۔ اس رپورٹ اور پلان میں موجود سماجی اور ماحولیاتی مسائل کے حل کیلئے مختص رقم اور ان کا صحیح طریقے سے استعمال ٹھیکیدار کے کنٹریکٹ حصہ ہوگا۔

رہائشیوں کیلئے آنے جانے اور دکانوں/گھروں تک رسائی کے لیے متبادل راستے مہیا کرنا ٹھیکیدار کی ذمہ داری ہے۔

- دکانوں/تھڑوں/ٹھیلوں وغیرہ کے باہر کسی بھی قسم کے نقصان یا توڑ پھوڑ کی صورت میں ٹھیکیدار طے شدہ ضوابط کے مطابق اس کی قیمت متاثرہ لوگوں کو ادا کرے گا۔

- لیبر مزدور کو تربیت دی جائے کہ وہ ارد گرد رہائشی عورتوں اور بچوں کے آنے جانے میں کوئی رکاوٹ نہ بنیں اور رہائشیوں کے ساتھ بلا ضرورت کوئی میل جول نہ رکھیں۔

- تعمیراتی ٹیمپ لگانے، تعمیراتی کام کرنے یا مشینری اور تعمیراتی سامان رکھنے کے لیے عارضی طور پر حاصل کی گئی زمین کا کرایہ مالک مکان کو وقت پر ادا کی جائے گا۔ اور تحریری معاہدے کی صورت میں ٹھیکیدار تمام قواعد و ضوابط کا پابند ہوگا۔

- تعمیراتی کاموں کی ٹیمپ لگانے کے لیے عارضی زمین حاصل کرنے کے لئے مقامی رہائشیوں سے مشاورت اور دنوں کے حساب سے کرایہ اور اس کا مکمل طریقہ کار وضع کر کے باقاعدہ لکھا جائے گا۔ اور خلاف ورزی کی صورت میں ٹھیکیدار ذمہ دار ہوگا۔



## سرگرمیاں

5. تعمیراتی کام اور ہیوی مشینری کا استعمال

## مسائل

- ◆ شور و غل
- ◆ پانی کی آلودگی
- ◆ ہوائی آلودگی
- ◆ دیگر ماحولیاتی مسائل

## حفاظتی اقدامات

◆ تعمیراتی علاقے میں موجود ہسپتالوں، سکولوں رکالوجوں وغیرہ اور رہائشی گھروں ردکانوں کی تمام تفصیلات کی رپورٹ متعلقہ میونسپل کمیٹی کے دفتر میں موجود ہونی چاہئے جو کہ ٹھیکیدار کے کنٹریکٹ کا حصہ ہوگی۔ اور ٹھیکیدار ان تفصیلات کے مطابق ایسا پلان ترتیب دے گا جس سے ارد گردی عمارتوں پر ہائیکیوں اور ردکانوں کو کم سے کم پریشانی کا سامنا کرنا پڑے مثلاً زیادہ شور پیدا کرنے والے کام دن کے اس حصے میں کئے جائیں جب ہسپتالوں، اور سکولوں رکالوجوں وغیرہ کے مصروف اوقات کار نہ ہوں اور ایسے کام جن کی وجہ سے راستوں کی عارضی بندش ضروری ہوں وہ رات کو کیئے جائیں جب رہائشیوں کی آمد و رفت نہ ہو۔

◆ تعمیراتی کاموں کے دوران پیدا شدہ فاضل پانی یا پورٹیل ٹوائلٹس کا پانی فضلہ وغیرہ کا محفوظ اور مناسب طریقے سے ٹھکانے لگانے کا بندوبست کیا جائے اور فاضل پانی کو پینے کے صاف پانی کے ساتھ شامل ہونے سے بچانے کا ہر ممکن قدم اٹھایا جائے۔

◆ دائرہ پلائی کی سیکسوں یا ایسی تمام کام جن کی وجہ سے رہائشیوں کو پانی یا سیوریج وغیرہ میں عارضی بندش کا سامنا کرنا پڑ سکتا ہو، ایسے تمام کاموں کے آغاز سے پہلے رہائشیوں کو پیشگی اطلاع دی جائے اور متبادل انتظامات کا خطرہ خواہ انتظام کیا جائے۔

◆ تعمیراتی کاموں کی وجہ سے درختوں کی کٹائی سے ہر حال میں گریز کیا جائے اور ناگزیر صورت حال میں ایک درخت کی کٹائی کے متبادل کے طور پر چار درخت لگانا ضروری ہیں۔

◆ تعمیراتی جگہ پر پیدا ہونے والے کوڑا کرکٹ کو ٹھکانے لگانے کیلئے ڈسٹ بن لگائے جائیں اور ان کو روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی کی طرف سے مقرر کردہ مقام پر ٹھکانے لگایا جائے۔

◆ کوڑا کرکٹ اور فاضل پانی ارد گرد موجود فصلوں اور ندی نالوں میں پھینکنے سے گریز کریں۔

◆ گرد و غبار اور ہوائی آلودگی کی صورت میں پانی کا باقاعدہ چھڑکاؤ کریں۔

◆ تعمیراتی کام کی مدت اور نوعیت کے مطابق کام کے آغاز سے پہلے، کام کے دوران اور کام کے بعد پانی کی آلودگی، ہوائی آلودگی اور آبی آلودگی کے نمونہ جات حاصل کر کے ان کی جانچ پڑتال کرنا ٹھیکیدار کی ذمہ داری ہے۔ اس سلسلے میں ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (ESS) سے مزید رہنمائی حاصل کریں۔

◆ تعمیراتی کام مکمل ہو جانے کے بعد علاقے کی صفائی ستھرائی اور ماحولیاتی خوبصورتی کا خاص خیال رکھیں اور پہلے سے بہتر حالت میں چھوڑیں۔

\* سپریم کورٹ آف پاکستان کے موٹو کیس نمبر 25 برطابق 2009 حوالہ نمبر "کنگ آف نرین فار کینال دو ایڈونٹک پراجیکٹ لاہور" تعمیراتی کاموں کے دوران ہر ایک درخت کی کٹائی کے متبادل چار درخت لگانے کا حکم ہے۔

انوائٹمنٹ اینڈ سوشل سیف گارڈ ٹیم

پی ایم ڈی ایف سی

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ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے  
مزدوروں، ورکرز، (بشمول خواتین لیبر / ورکرز) کی صحت، حفاظت  
اور ماحول کے لئے معیاری اصول و ضوابط درج ذیل پالیسیز،  
قوانین اور نوٹیفیکیشنز کا تجزیہ کر کے تجویز کئے گئے ہیں۔

- ◆ The Punjab Occupational Health & Safety Act, 2019
- ◆ General Environment, Health & Safety (EHS) Guidelines by International Finance Corporation (IFC), World Bank
- ◆ International Labour Standards of International Labour Organization (ILO)
- ◆ Punjab Tehsil/Town Municipal Administration (Works) Rules 2003 (Amendments 2016)
- ◆ The Punjab Restriction on Employment of Children Act, 2016
- ◆ The West Pakistan Maternity Benefit Ordinance, 1958
- ◆ ESF/Safeguards Interim Note: COVID-19 Considerations in Construction / Civil Works Projects - World Bank Guidelines
- ◆ Health & safety SOPs for Construction Workers/Sector for COVID 19
- ◆ Punjab Wildlife (Protection, Preservation, Conservation and Management) Act, 1974

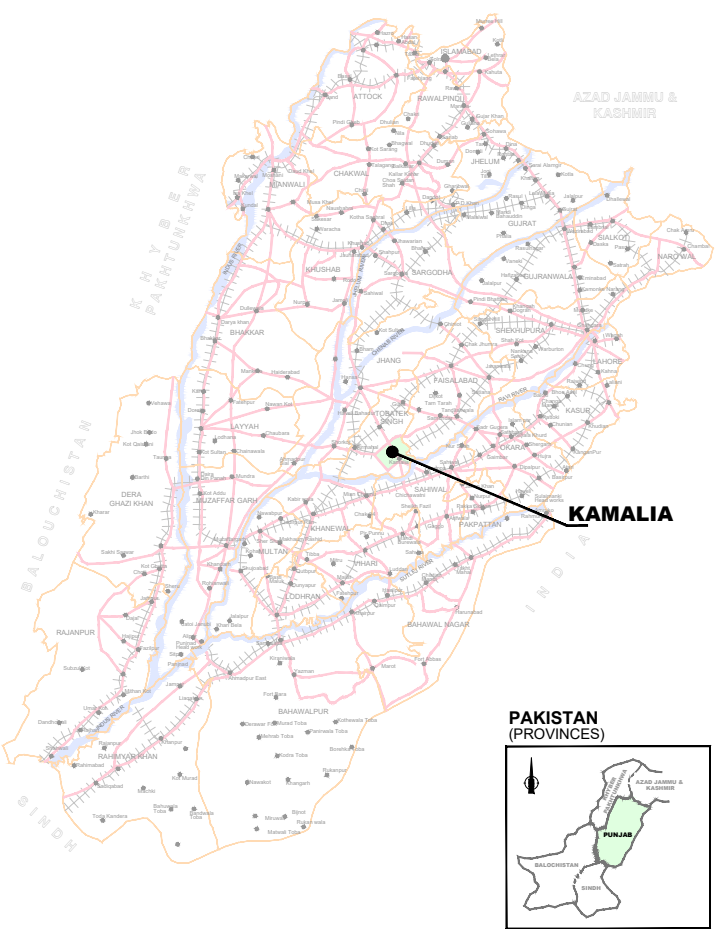


# **Annexure-F**

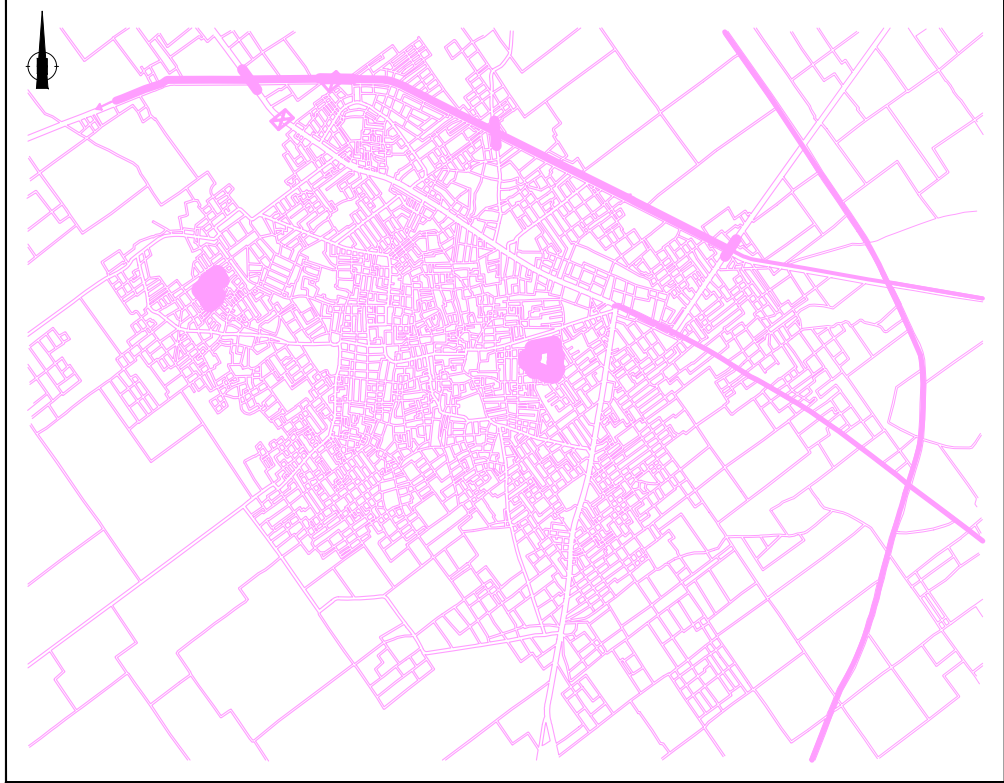
## **Project Drawings**

**PUNJAB CITIES PROGRAM (PCP)  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB, PAKISTAN**

**PUNJAB PROVINCE  
 (PAKISTAN)**



**KAMALIA CITY  
 (PAKISTAN)**



**DESIGN DRAWINGS OF  
 PARKING SHED  
 MC KAMALIA  
 PUNJAB, PAKISTAN**

**October, 2022**

CLIENT:



**PUNJAB MUNICIPAL DEVELOPMENT  
 FUND COMPANY  
 (PMDFC)**

CONSULTANT:



**JERS CONSULTANCY (PVT) LTD**

24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

## LIST OF DRAWINGS

Sr.No.	DESCRIPTION	DRAWING NO.
<b>SWM PARKING SHED DRAWINGS</b>		
1	PROJECT KEY PLAN	PS-01
2	PARKING SHED AREA TOPOGRAPHIC SURVEY	PS-02
3	PROPOSED SWM PARKING SHED AREA	PS-03
4	PROPOSED SWM PARKING SHED, SUPER IMPOSED ON EXISTING AREA	PS-04
5	GROUND FLOOR PLAN PARKING SHED-1	PS-05
6	ROOF PLAN PARKING SHED-1	PS-06
7	RIGID FRAME ELEVATION PARKING SHED-1	PS-07
8	FOOTING DETAILS PARKING SHED-1	PS-08
9	GROUND FLOOR PLAN PARKING SHED-2	PS-09
10	ROOF PLAN PARKING SHED-2	PS-10
11	RIGID FRAME ELEVATION PARKING SHED-2	PS-11
12	FOOTING DETAILS PARKING SHED-2	PS-12
13	WASHING PIT DETAIL	PS-13
14	BOUNDARY WALL DETAIL	PS-14
15	GENERATOR PAD DETAIL	PS-15
16	PROPOSED ENTRANCE GATE	PS-16
17	TYPICAL ROAD CROSS SECTION	PS-17
18	PUMP PAD & SEPTIC TANK DETAIL	PS-18
<b>ARCHITECTURAL DRAWINGS</b>		
19	LEGEND & NOTES (OFFICE BLOCK)	A-01
20	GROUND FLOOR & ROOF PLAN PROPOSED STORE	A-02
21	ELEVATION-01,02& SECTION A-A PROPOSED STORE	A-03
22	DOOR WINDOW SCHEDULE PROPOSED STORE	A-04
23	LEGEND & NOTES OFFICE BLOCK	A-05
24	GROUND FLOOR & ROOF PLAN OFFICE BLOCK	A-06
25	ELEVATION-01,02 OFFICE BLOCK	A-07
26	SECTION A-A OFFICE BLOCK	A-08

Sr.No.	DESCRIPTION	DRAWING NO.
<b>ARCHITECTURAL DRAWINGS</b>		
27	DOOR WINDOW SCHEDULE OFFICE BLOCK	A-09
28	LEGEND & NOTES GUARD ROOM	A-10
29	GROUND FLOOR & ROOF PLAN GUARD ROOM	A-11
30	ELEVATION-01 & 02 GUARD ROOM	A-12
31	SECTION A-A GUARD ROOM	A-13
32	DOOR WINDOW SCHEDULE GUARD ROOM	A-14
33	LEGEND & NOTES WORKSHOP	A-15
34	GROUND FLOOR PLAN (WORKSHOP)	A-16
35	ROOF PLAN (WORKSHOP)	A-17
36	SECTION A-A (WORKSHOP)	A-18
37	SECTION B-B WORKSHOP	A-19
38	FOUNDATION DETAIL (WORKSHOP)	A-20
39	DOOR WINDOW SCHEDULE (WORKSHOP)	A-21
<b>PLUMBING DRAWINGS</b>		
40	LEGEND & NOTES	G-00
41	WATER SUPPLY SYSTEM	EW-01
42	WATER SUPPLY LAYOUT PLAN OFFICE BLOCK	W-01
43	WATER SUPPLY GROUND FLOOR WORKSHOP	W-02
44	PROPOSED EXTERNAL SEWER SYSTEM LAYOUT	ES-01
45	SEWER SYSTEM GROUND FLOOR & ROOF PLAN PROPOSED STORE	S-01
46	SEWER SYSTEM GROUND & ROOF LAYOUT PLAN OFFICE BLOCK	S-02
47	GROUND FLOOR & ROOF PLAN GUARD ROOM DRAINAGE LAYOUT	S-03
48	GROUND FLOOR SEWER SYSTEM LAYOUT WORKSHOP	S-04
49	ROOF PLAN SEWER SYSTEM LAYOUT WORKSHOP	S-05
50	GROUND FLOOR LAYOUT PLAN PARKING SHED-1	D-01
51	ROOF LAYOUT PLAN PARKING SHED-1	D-02

Sr.No.	DESCRIPTION	DRAWING NO.
<b>PLUMBING DRAWINGS</b>		
52	GROUND FLOOR LAYOUT PLAN PARKING SHED-2	D-03
53	ROOF LAYOUT PLAN PARKING SHED-2	D-04
54	RAIN WATER OUTLET DETAIL	D-05
55	MISCELLANEOUS DETAIL	M-01
56	MISCELLANEOUS DETAIL	M-02
<b>ELECTRICAL DRAWINGS</b>		
57	LEGEND & NOTES	E-00
58	ELECTRICAL CABLE ROUTE LAYOUT PLAN	E-01
59	EXTERNAL ROAD LIGHTING LAYOUT PLAN	E-02
60	LIGHTING & SMALL POWER LAYOUT PLAN STORE	E-03
61	LIGHTING & SMALL POWER LAYOUT PLAN OFFICE BLOCK	E-04
62	LIGHTING & SMALL POWER LAYOUT PLAN GUARD ROOM	E-05
63	LIGHTING & SMALL POWER LAYOUT PLAN WORK SHOP	E-06
64	LIGHTING & SMALL POWER LAYOUT PLAN SHED 1 & 2	E-07
65	MISCELLANEOUS DETAIL	E-08
66	MISCELLANEOUS DETAIL	E-09
67	SINGLE LINE DIAGRAM	SLD - 01
68	SINGLE LINE DIAGRAM	SLD - 02

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

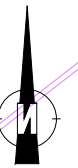
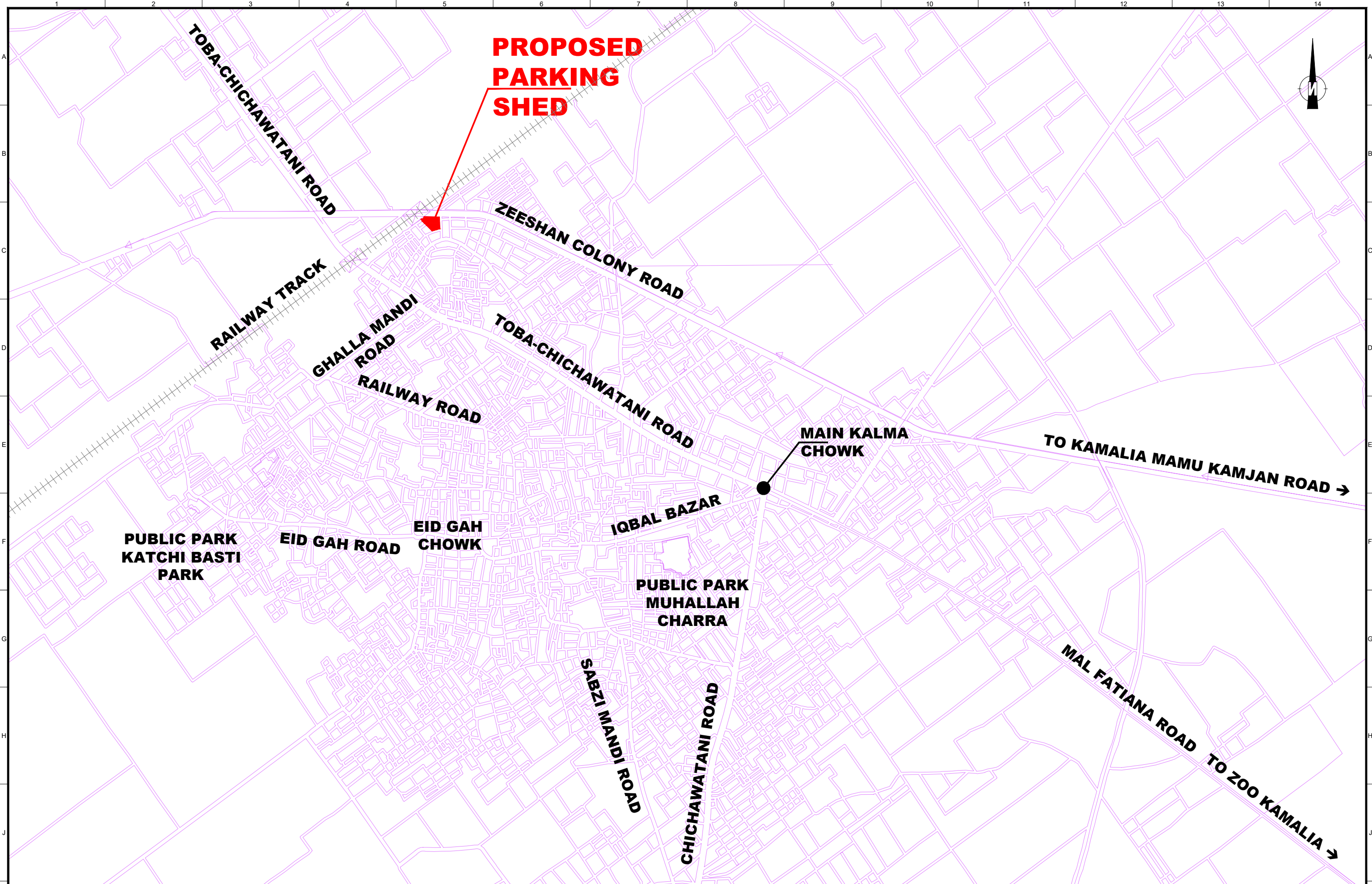
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 212

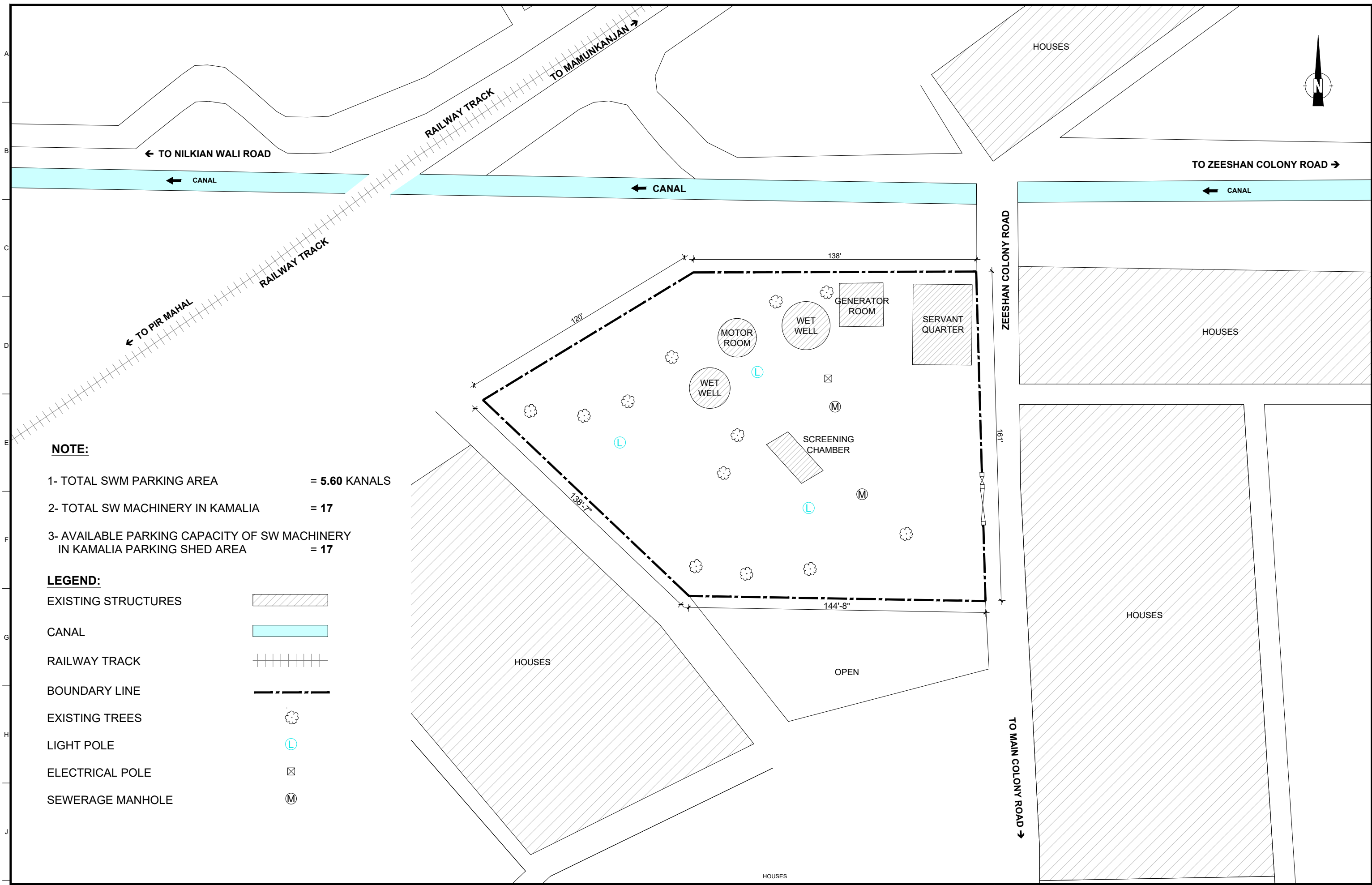
DRAWING TITLE:  
**LIST OF DRAWINGS  
 (KAMLIA CITY)**

REV.	DATE	DESCRIPTION

DRAWN BY: Asif	DRAWING NO: <b>PS-00</b>
CHECKED BY: Fizza	SCALE: UNIT=FEET
DATE: July,2022	SHEET: JOB NO: 488-01



<p>CLIENT:</p>  <p><b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b></p>	<p>CONSULTANTS:</p>  <p><b>JERS CONSULTANCY (PVT) LTD</b>          24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</p>	<p>PROJECT:</p> <p><b>PUNJAB CITIES PROGRAM (PCP)</b>          DETAILED DESIGN OF INFRASTRUCTURE          SUB-PROJECTS AND RESIDENTS SUPERVISION IN          16 CITIES OF PUNJAB. 213</p>	<p>DRAWING TITLE:</p> <p><b>PROJECT AREA          KEY PLAN          (KAMALIA)</b></p>	<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION	-	-	-	<p>DRAWN BY: MUNIR</p> <p>CHECKED BY: HASEEB</p> <p>DATE: JULY.,2022</p>	<p>DRAWING NO: <b>PS-01</b></p> <table border="1"> <tr> <td>SCALE: UNIT=FEET 1"=1200'</td> <td>SHEET: 1 OF 1 JOB NO: 488-01</td> </tr> </table>	SCALE: UNIT=FEET 1"=1200'	SHEET: 1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION												
-	-	-												
SCALE: UNIT=FEET 1"=1200'	SHEET: 1 OF 1 JOB NO: 488-01													



**NOTE:**

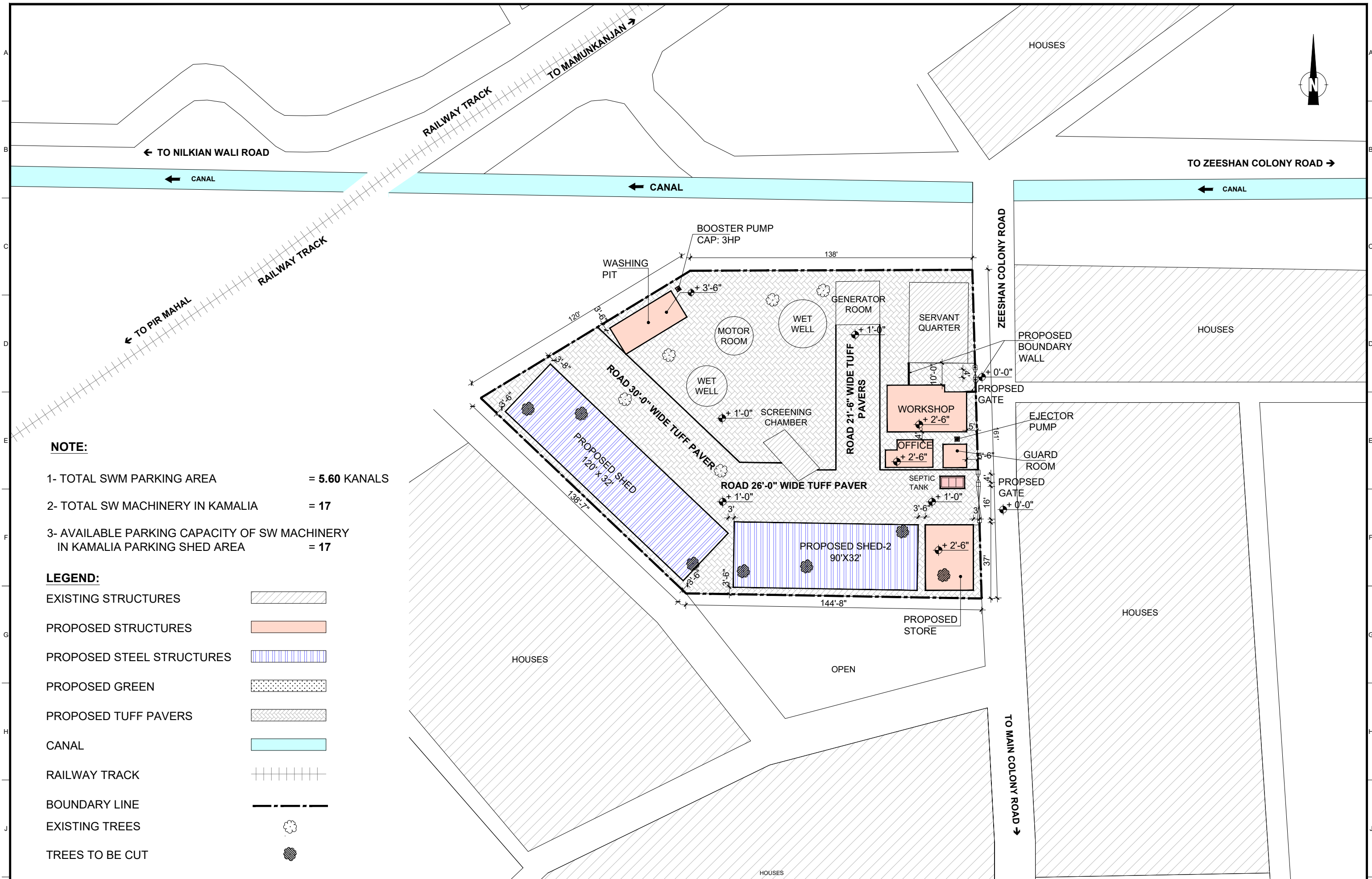
- 1- TOTAL SWM PARKING AREA = 5.60 KANALS
- 2- TOTAL SW MACHINERY IN KAMALIA = 17
- 3- AVAILABLE PARKING CAPACITY OF SW MACHINERY IN KAMALIA PARKING SHED AREA = 17

**LEGEND:**

- EXISTING STRUCTURES
- CANAL
- RAILWAY TRACK
- BOUNDARY LINE
- EXISTING TREES
- LIGHT POLE
- ELECTRICAL POLE
- SEWERAGE MANHOLE

CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 214	DRAWING TITLE: <b>SWM PARKING SHED AREA TOPOGRAPHIC SURVEY (KAMALIA)</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION							DRAWN BY: Asif CHECKED BY: Sadat Waleed DATE: JULY,2022	DRAWING NO: <b>PS-02</b> SCALE: UNIT=FEET 1"=500' SHEET: 1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION													





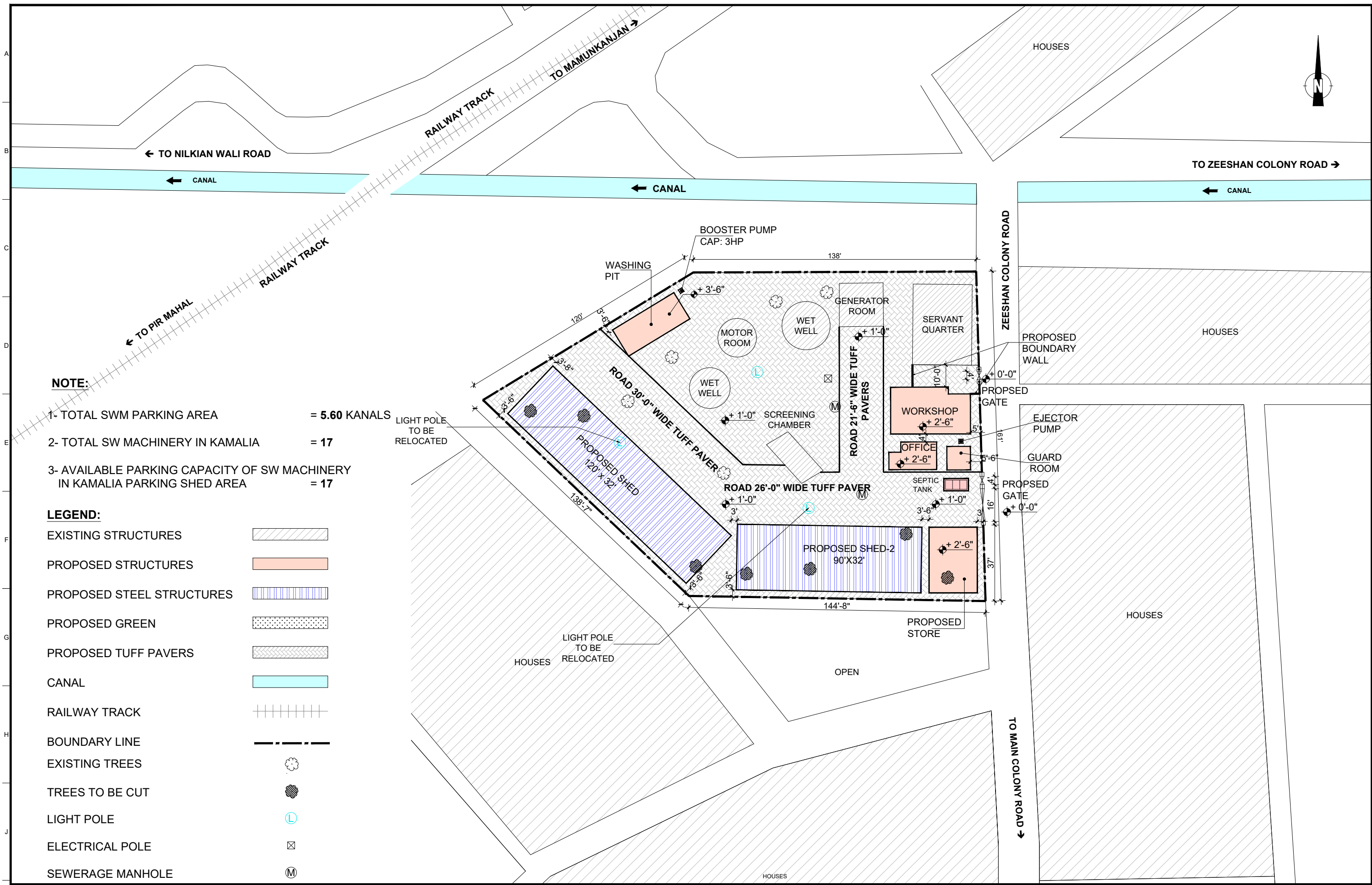
**NOTE:**

- 1- TOTAL SWM PARKING AREA = 5.60 KANALS
- 2- TOTAL SW MACHINERY IN KAMALIA = 17
- 3- AVAILABLE PARKING CAPACITY OF SW MACHINERY IN KAMALIA PARKING SHED AREA = 17

**LEGEND:**

- EXISTING STRUCTURES
- PROPOSED STRUCTURES
- PROPOSED STEEL STRUCTURES
- PROPOSED GREEN
- PROPOSED TUFF PAVERS
- CANAL
- RAILWAY TRACK
- BOUNDARY LINE
- EXISTING TREES
- TREES TO BE CUT

CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 215	DRAWING TITLE: <b>PROPOSED SWM          PARKING SHED AREA          (KAMALIA)</b>		DRAWN BY: Asif CHECKED BY: Sadat Waleed DATE: JULY, 2022	DRAWING NO: <b>PS-03</b> SCALE: UNIT=FEET 1"=500' SHEET: 1 OF 1 JOB NO: 488-01					
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REV.	DATE	DESCRIPTION									

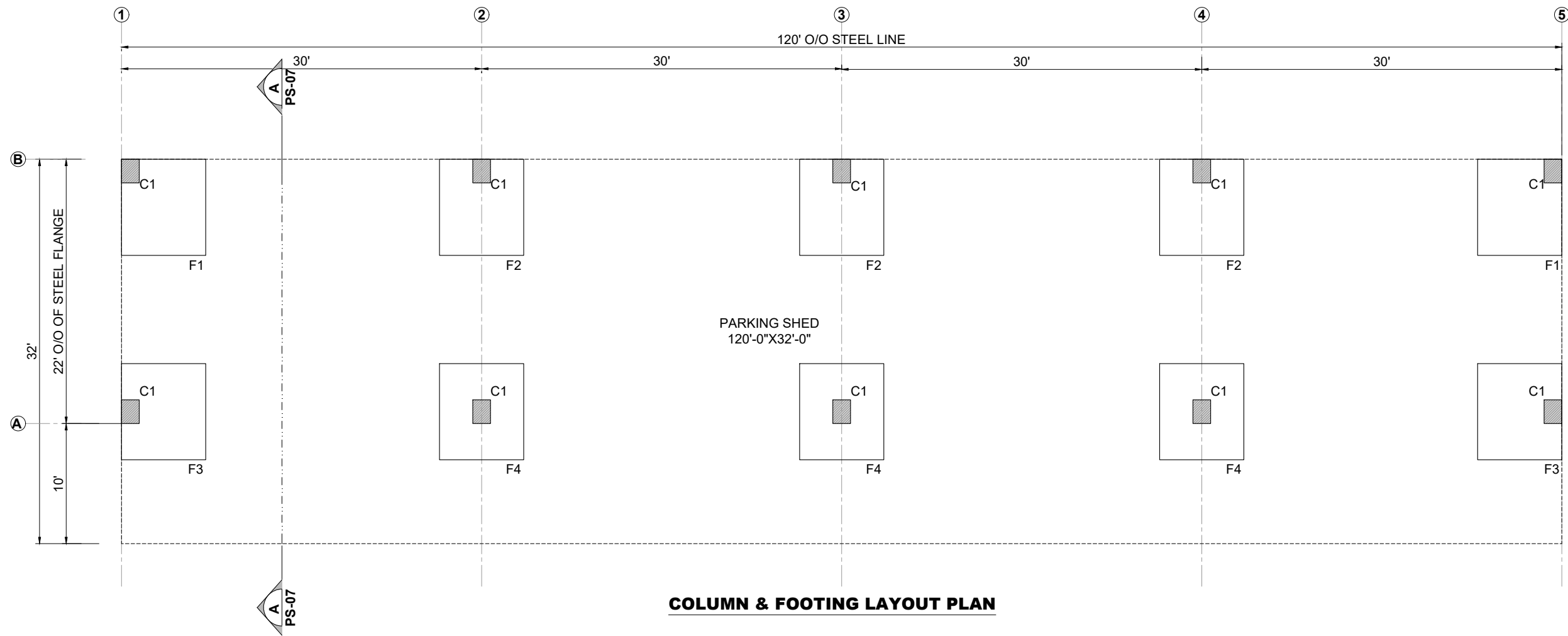



- NOTE:**
- 1- TOTAL SWM PARKING AREA = 5.60 KANALS
  - 2- TOTAL SW MACHINERY IN KAMALIA = 17
  - 3- AVAILABLE PARKING CAPACITY OF SW MACHINERY IN KAMALIA PARKING SHED AREA = 17

- LEGEND:**
- EXISTING STRUCTURES
  - PROPOSED STRUCTURES
  - PROPOSED STEEL STRUCTURES
  - PROPOSED GREEN
  - PROPOSED TUFF PAVERS
  - CANAL
  - RAILWAY TRACK
  - BOUNDARY LINE
  - EXISTING TREES
  - TREES TO BE CUT
  - LIGHT POLE
  - ELECTRICAL POLE
  - SEWERAGE MANHOLE

CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 216	DRAWING TITLE: <b>PROPOSED SWM PARKING SHED,          SUPER IMPOSED ON EXISTING AREA          (KAMALIA)</b>	DRAWN BY: Asif CHECKED BY: Sadat Waleed DATE: JULY,2022	DRAWING NO: <b>PS-04</b> SCALE: UNIT=FEET 1"=500' SHEET: 1 OF 1 JOB NO: 488-01						
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REV.	DATE	DESCRIPTION									

# **PARKING SHED**



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

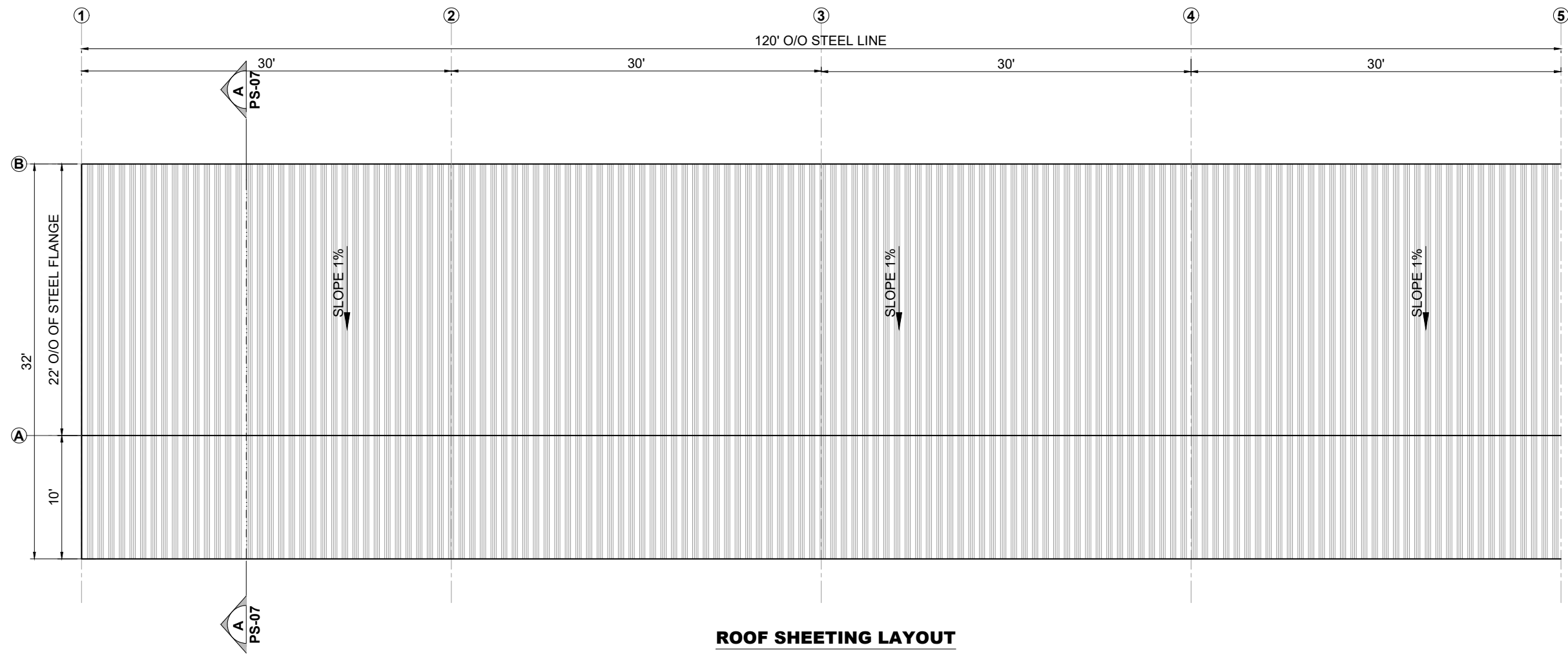
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 218

DRAWING TITLE:  
**GROUND FLOOR PLAN  
 PARKING SHED -1  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

DRAWING NO:  
**PS-05**  
 SCALE:  
1"=120'  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
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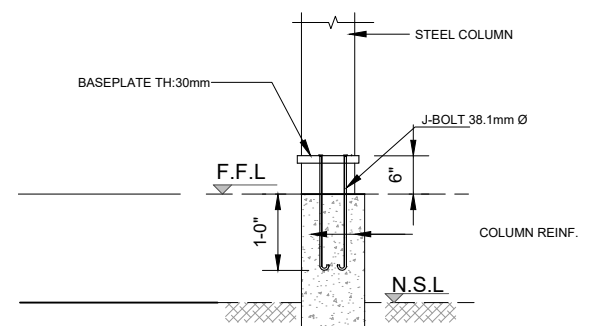
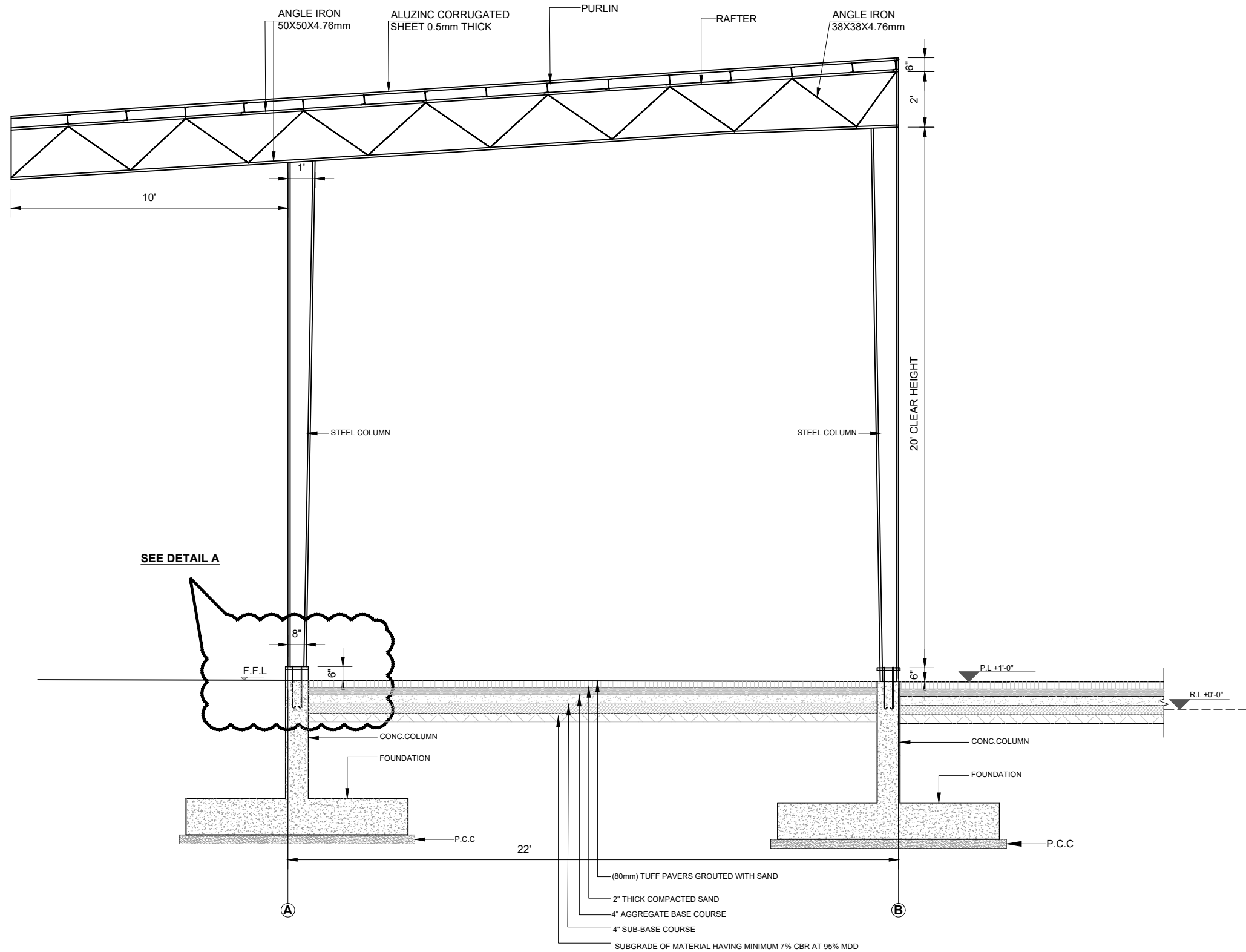
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 219

DRAWING TITLE:  
**ROOF LAYOUT PLAN  
 PARKING SHED -1  
 (KAMALIA CITY)**

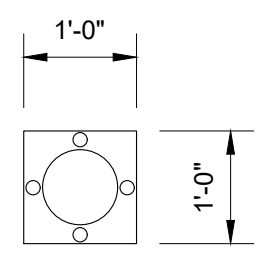
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June,2022

DRAWING NO:  
**PS-06**  
 SCALE:  
1"=120"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01





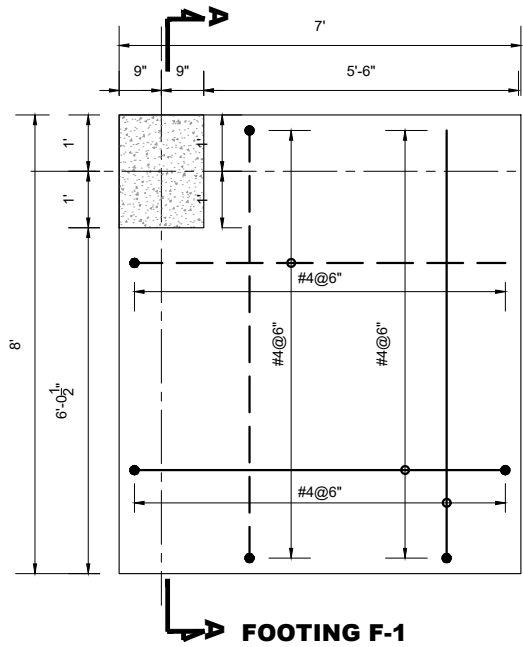
**DETAIL A**



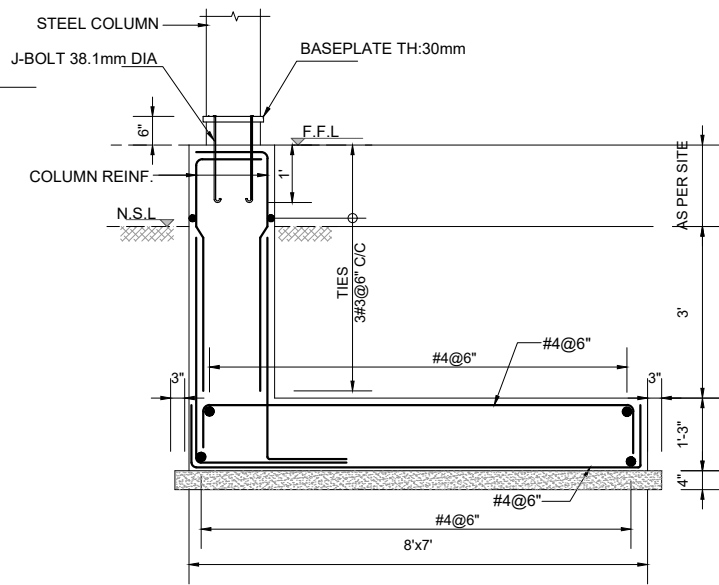
**BASEPLATE**

**RIGID FRAME SECTIONAL ELEVATION A-A**

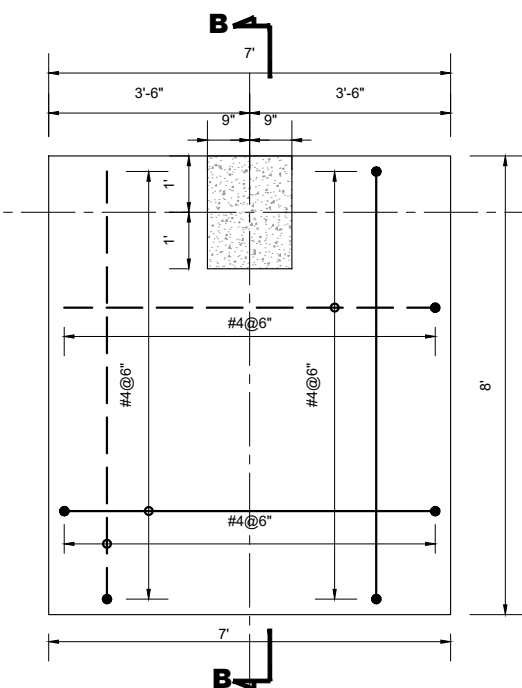
CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 220	DRAWING TITLE: <b>RIGID FRAME ELEVATION          PARKING SHED -1          (KAMALIA CITY)</b>	DRAWN BY: Munir	DRAWING NO: <b>PS-07</b>
				CHECKED BY: Sadat Waleed	
REV. DATE DESCRIPTION				DATE: June,2022	



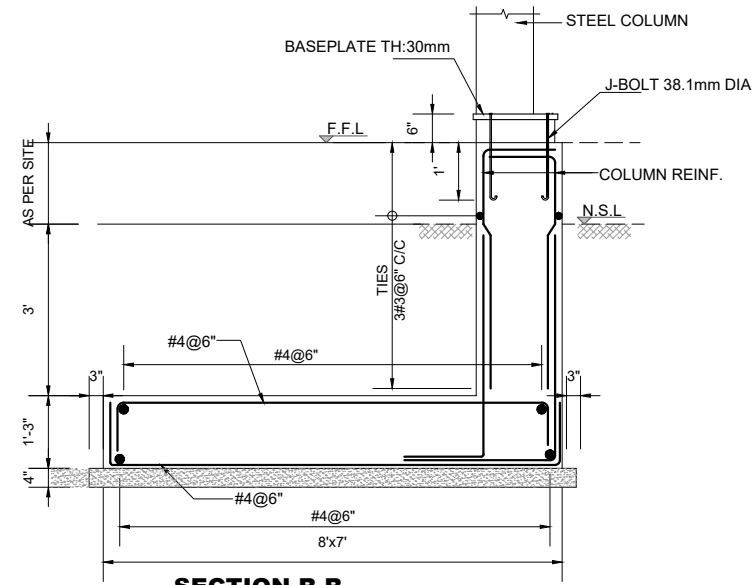
**FOOTING F-1**



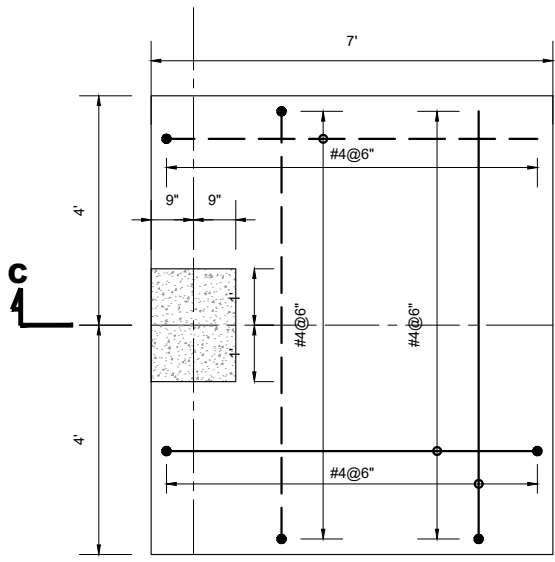
**SECTION A-A**



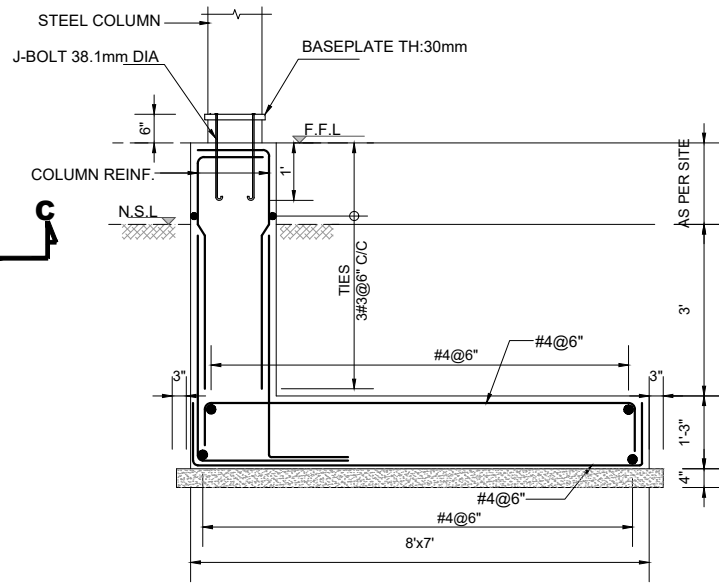
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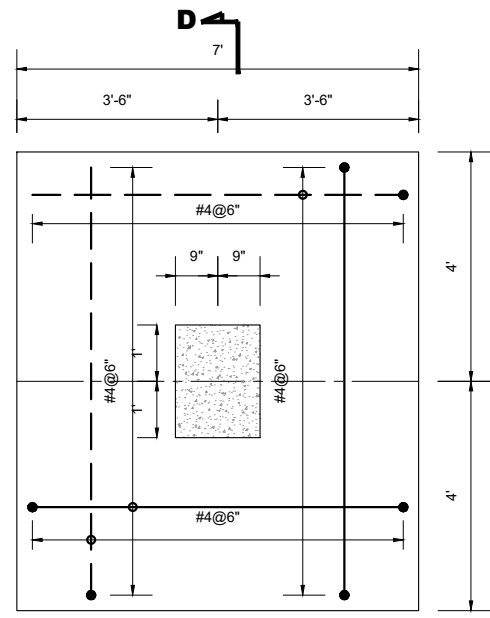
**SECTION B-B**



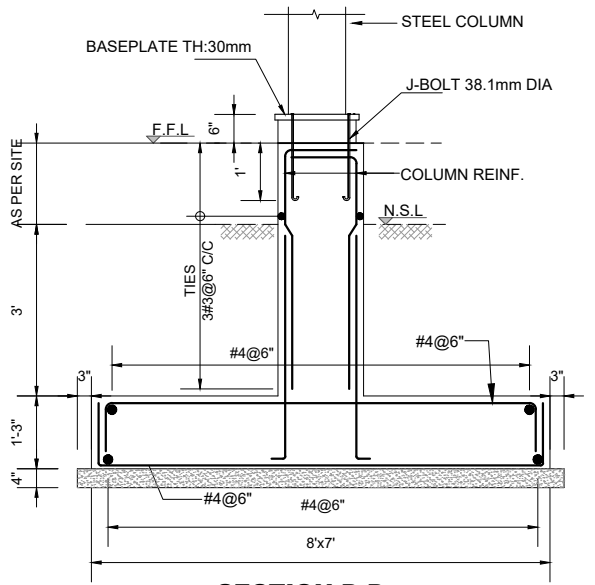
**FOOTING F-3**



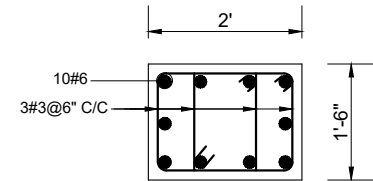
**SECTION C-C**



**FOOTING F-4**



**SECTION D-D**



**TYPICAL COLUMN C-1**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

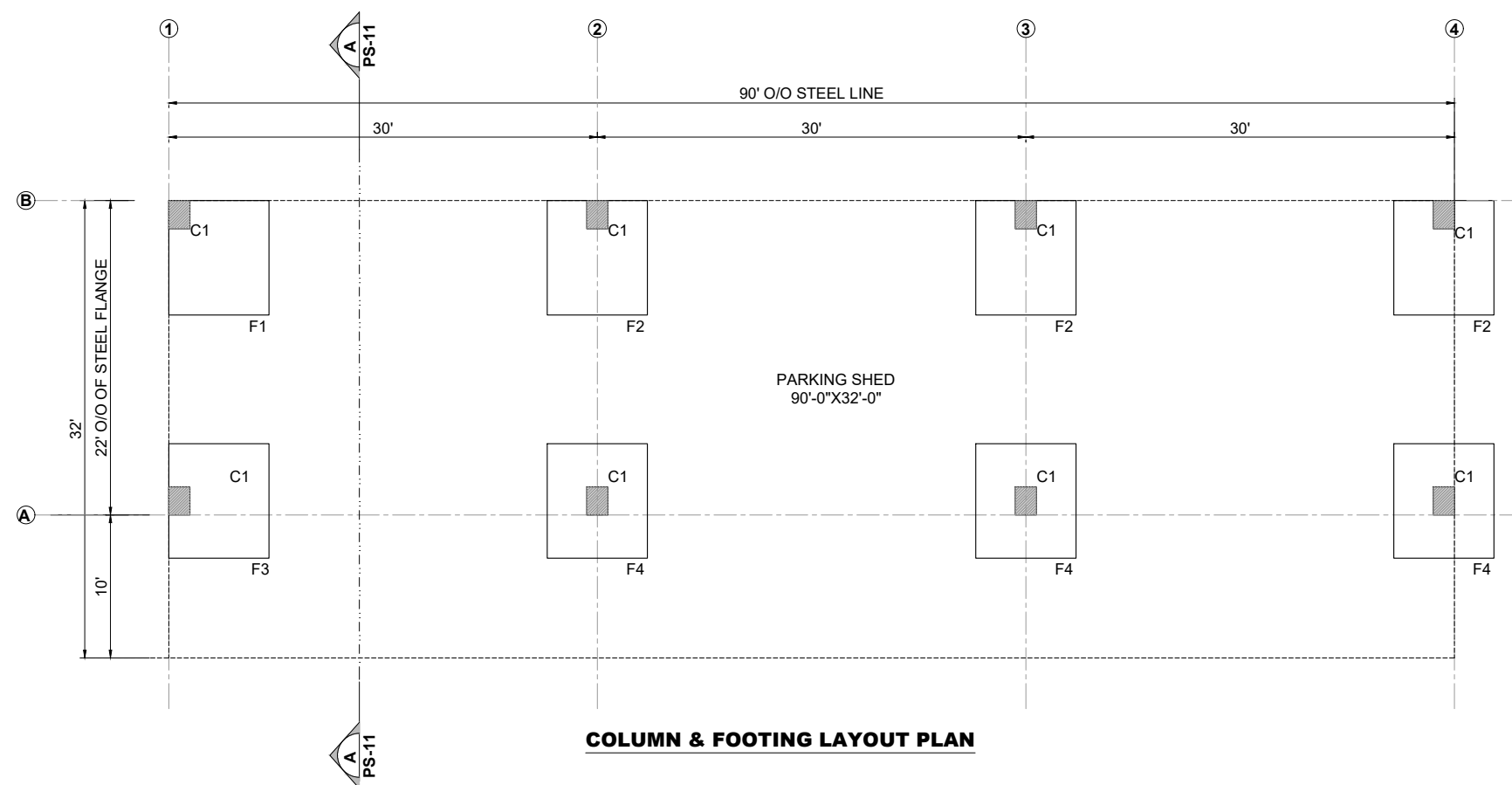
CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 221

DRAWING TITLE:  
**FOOTING DETAILS  
 PARKING SHED -1  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION

DRAWN BY: Munir	DRAWING NO: <b>PS-08</b>
CHECKED BY: Sadat Waleed	SCALE: 1"=40'
DATE: June,2022	SHEET: 1 OF 1
	JOB NO: 488-01



**COLUMN & FOOTING LAYOUT PLAN**

CLIENT:

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:

**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:

**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 222

DRAWING TITLE:

**GROUND FLOOR PLAN  
 PARKING SHED-2  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir

CHECKED BY:  
Sadat Waleed

DATE:  
June, 2022

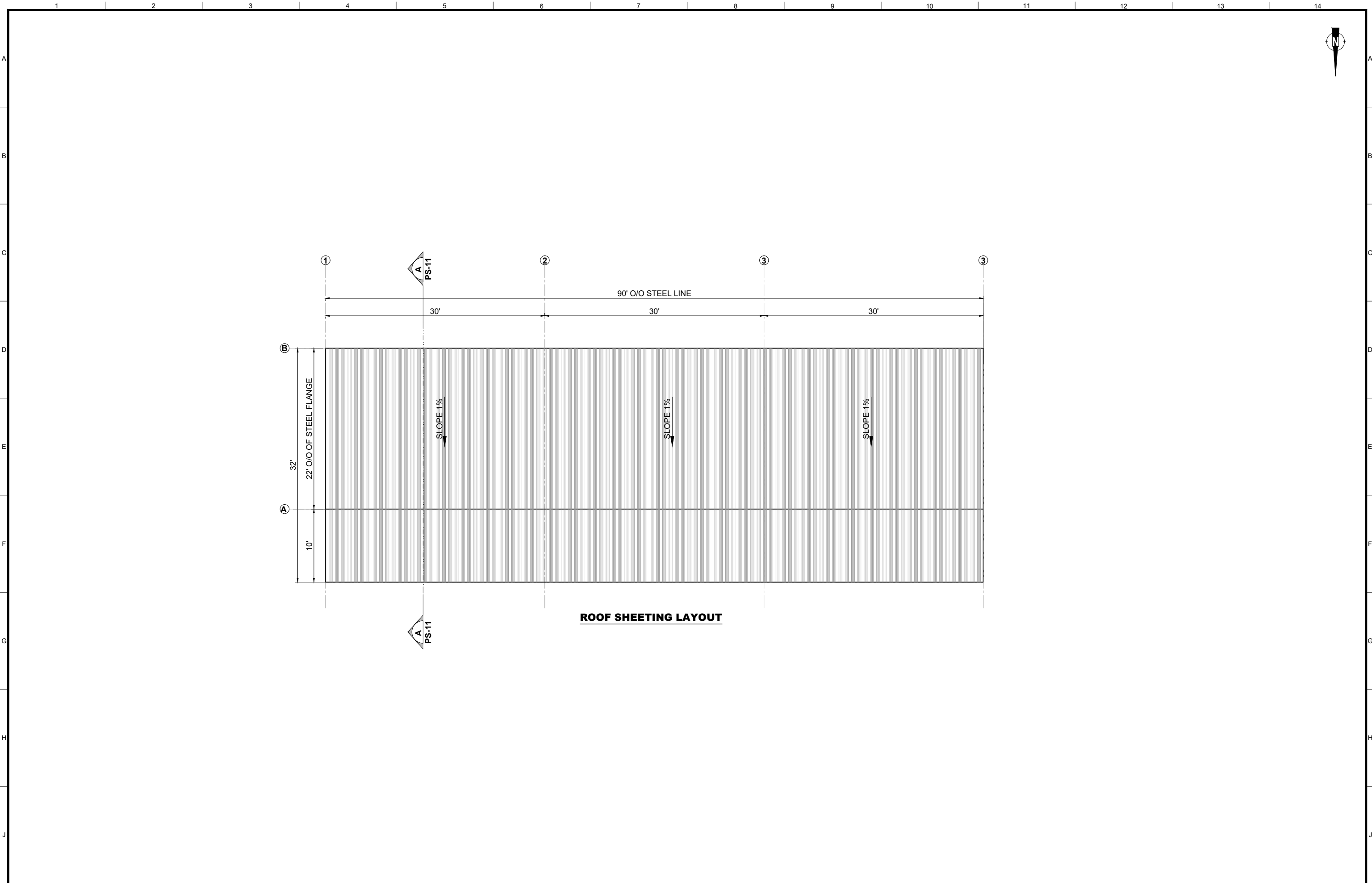
DRAWING NO:  
**PS-09**


SCALE:  
1"=120'

SHEET:  
1 OF 1

JOB NO:  
488-01





CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

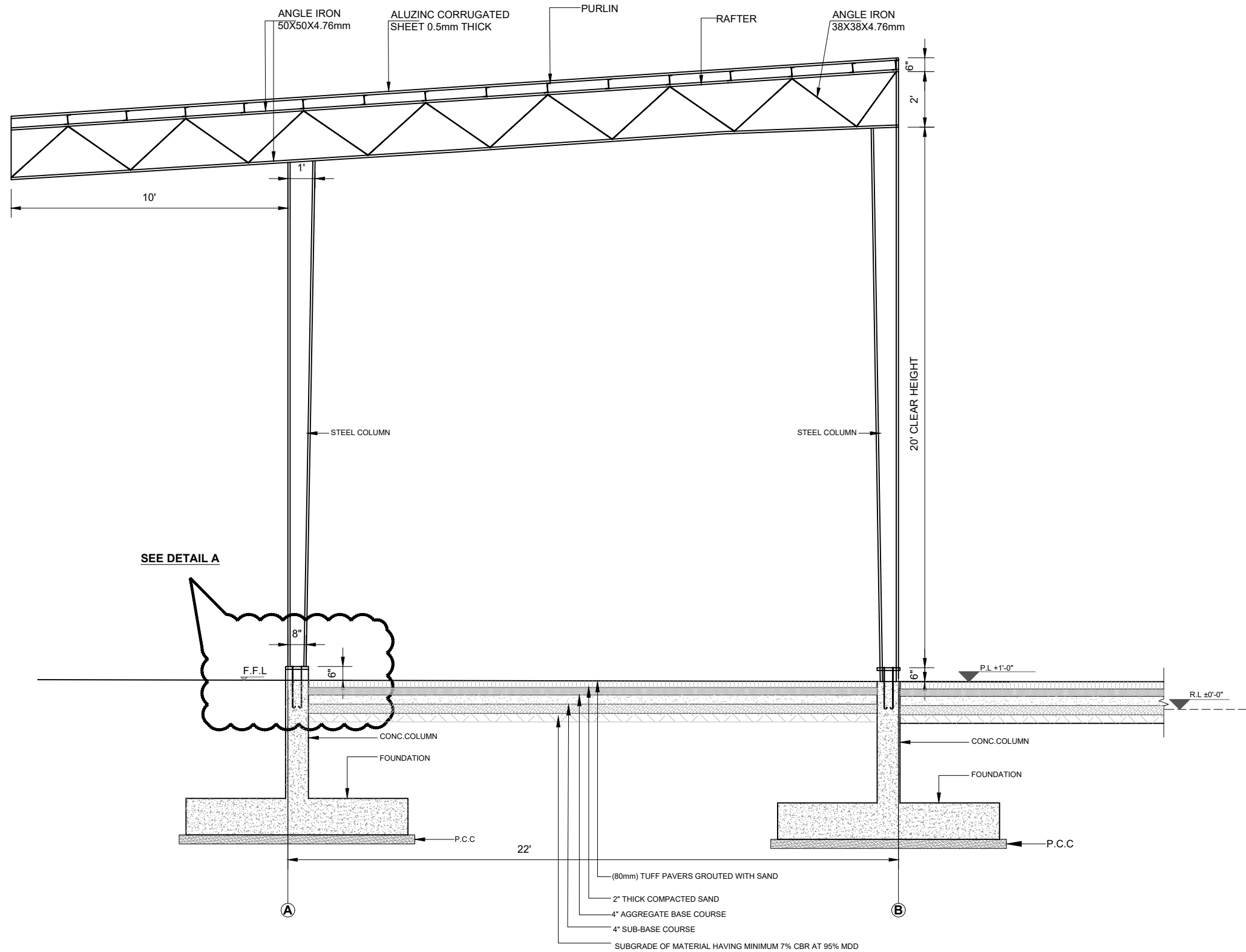
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 223

DRAWING TITLE:  
**ROOF PLAN  
 PARKING SHED-2  
 (KAMALIA CITY)**

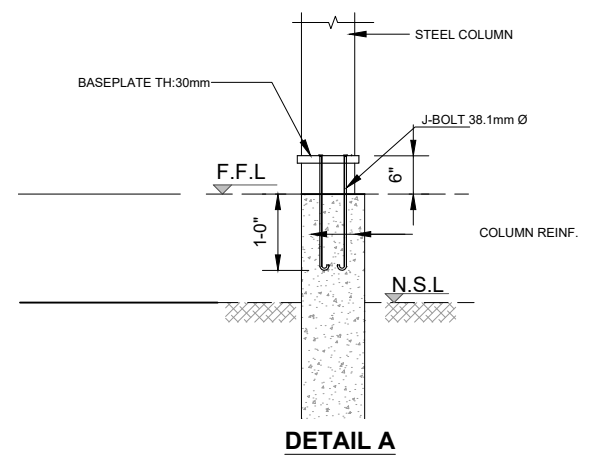
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

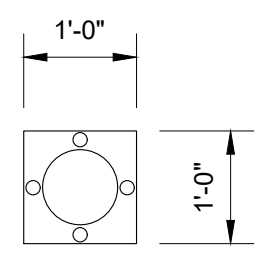
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**PS-10**  
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1 OF 1  
 JOB NO:  
488-01





**RIGID FRAME SECTIONAL ELEVATION A-A**

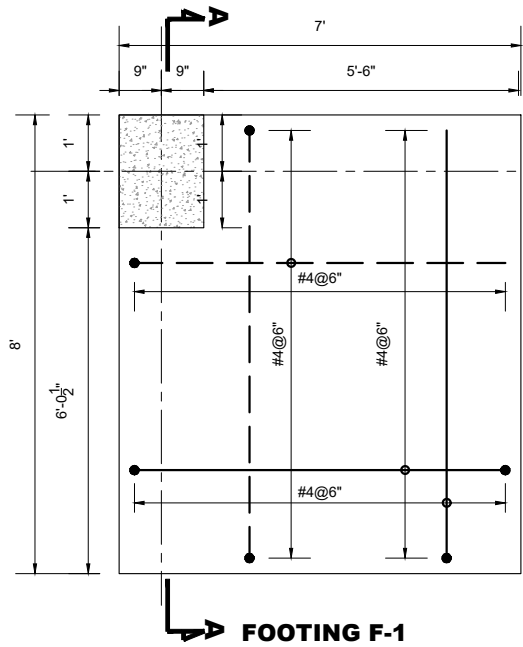


**DETAIL A**

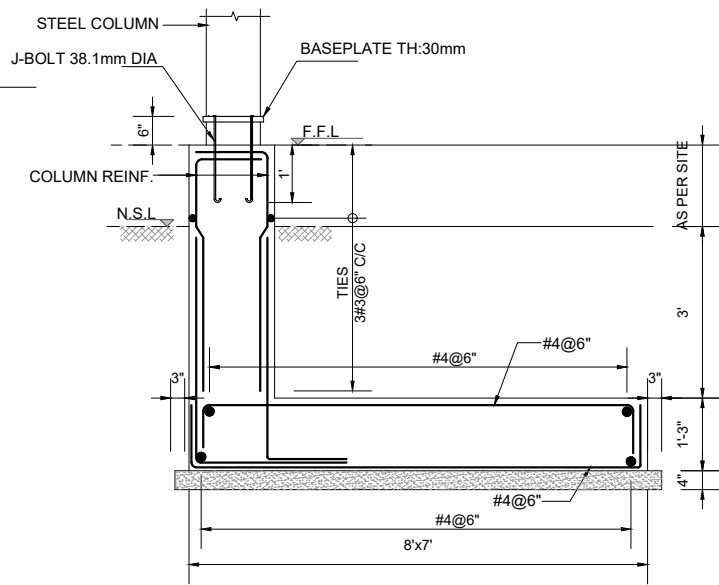


**BASEPLATE**

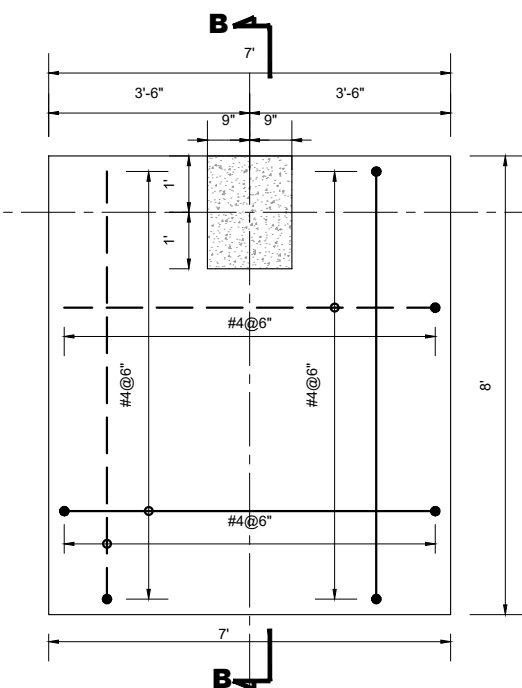
CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 224	DRAWING TITLE: <b>RIGID FRAME ELEVATION          PARKING SHED-2          (KAMALIA CITY)</b>	DRAWN BY: Munir	DRAWING NO: <b>PS-11</b>
				CHECKED BY: Sadat Waleed	
REV. DATE DESCRIPTION				DATE: June,2022	



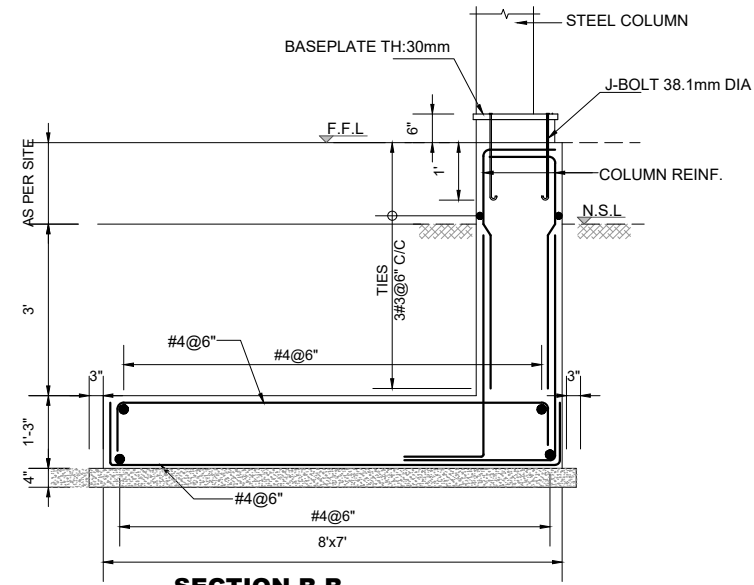
**FOOTING F-1**



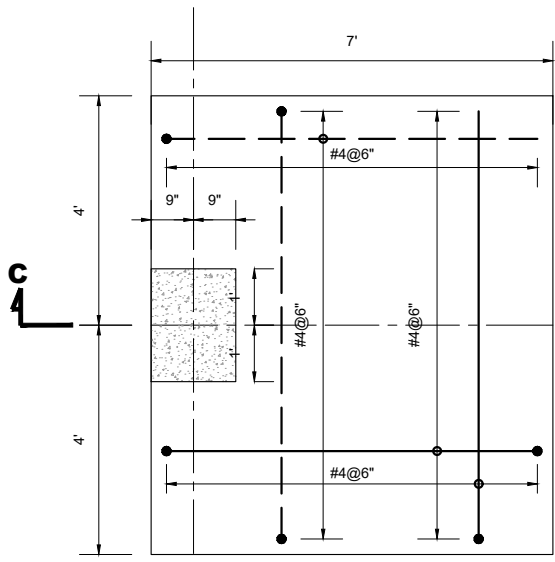
**SECTION A-A**



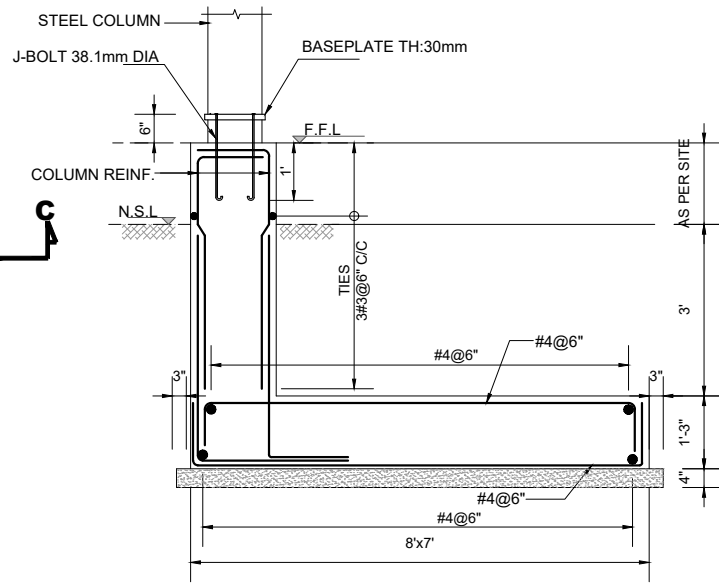
**FOOTING F-2**



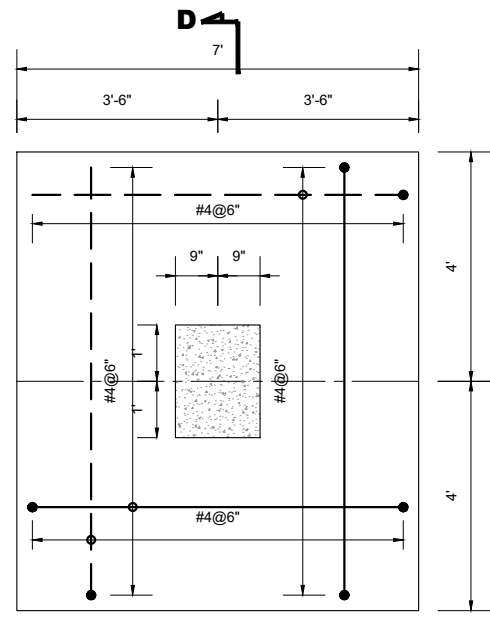
**SECTION B-B**



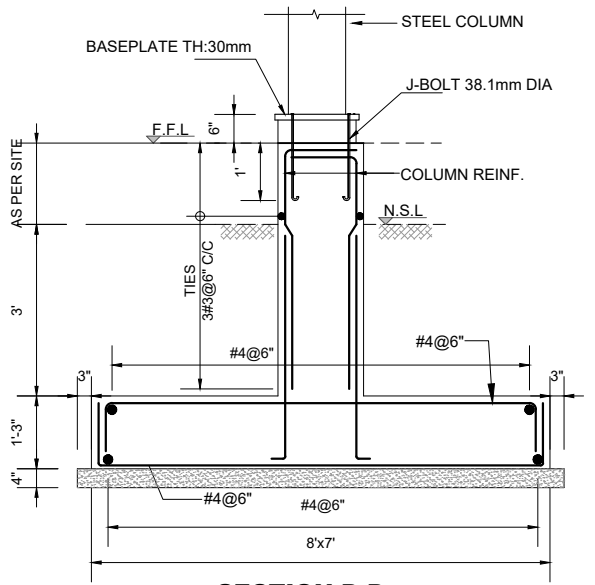
**FOOTING F-3**



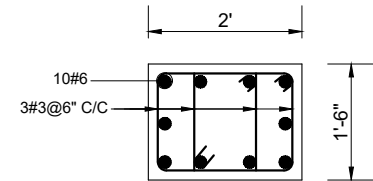
**SECTION C-C**



**FOOTING F-4**



**SECTION D-D**



**TYPICAL COLUMN C-1**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

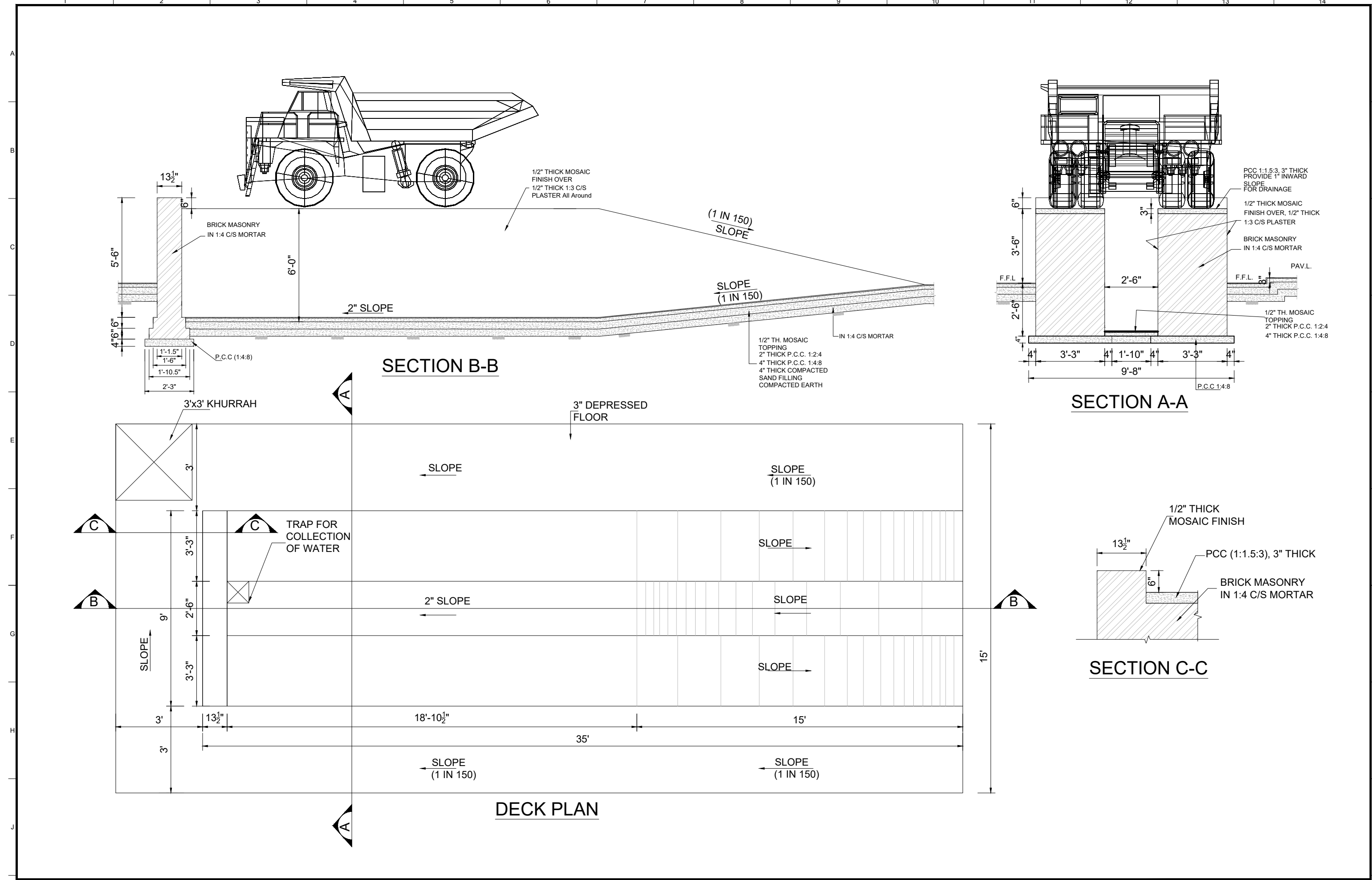
CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 225

DRAWING TITLE:  
**FOOTING DETAILS  
 PARKING SHED -2  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION

DRAWN BY: Munir	DRAWING NO: <b>PS-12</b>
CHECKED BY: Sadat Waleed	SCALE: 1"=40'
DATE: June,2022	SHEET: 1 OF 1
	JOB NO: 488-01



CLIENT:

**PMDFC** PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

**JERS CONSULTANCY (PVT) LTD**  
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
Tel: +92 42 35113123, +92 42 35113124  
Fax: +92 42 35113125  
E-mail: info@jers.com.pk, mail@jers.com.pk  
Web: http://www.jers.com.pk

PROJECT:

**PUNJAB CITIES PROGRAM (PCP)**  
DETAILED DESIGN OF INFRASTRUCTURE  
SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
16 CITIES OF PUNJAB. 226

DRAWING TITLE:

**WASHING PIT DETAIL (KAMALIA)**

REV.	DATE	DESCRIPTION

DRAWN BY: Asif

CHECKED BY: Sadat Waleed

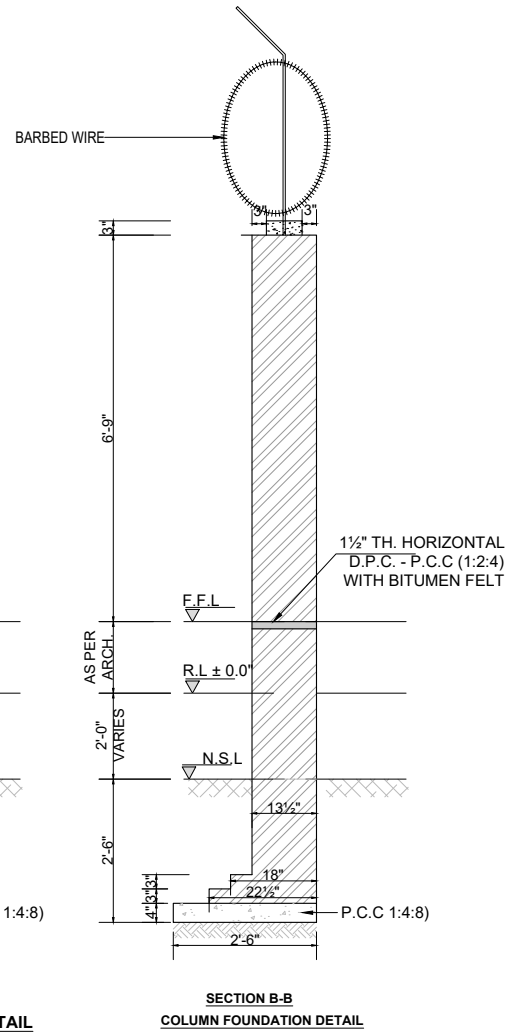
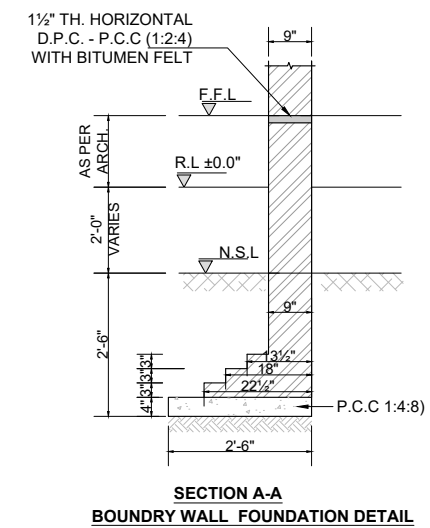
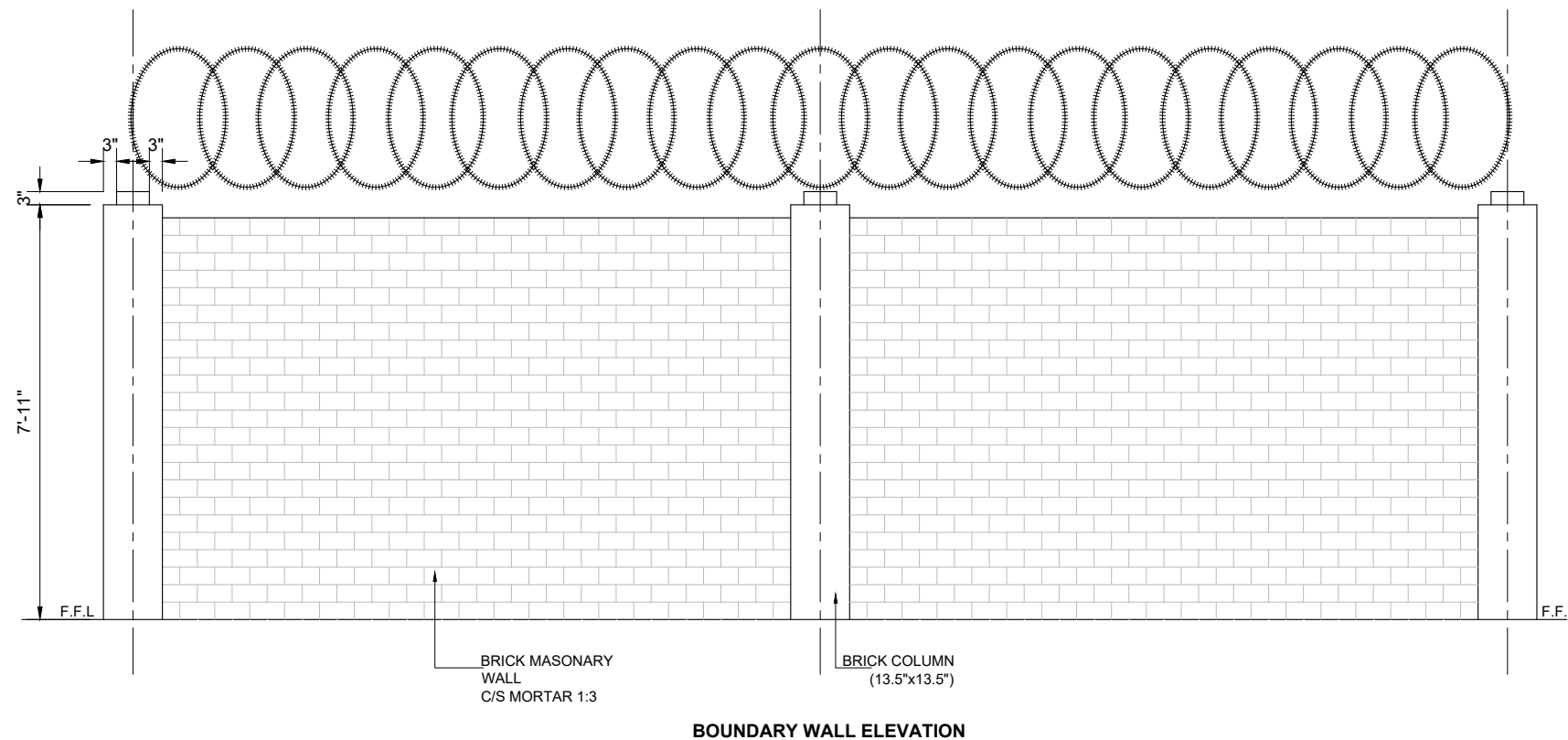
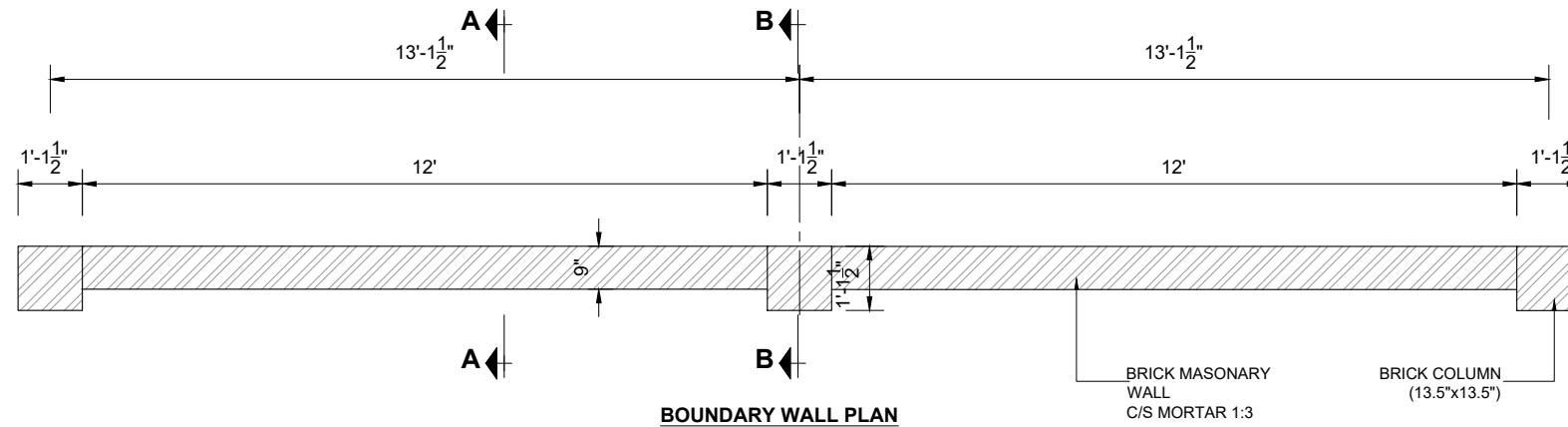
DATE: July, 2022

DRAWING NO: **PS-13**

SCALE: 1=40

SHEET: 1 OF 1

JOB NO: 488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 227

DRAWING TITLE:  
**BOUNDARY WALL DETAIL  
(KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir

CHECKED BY:  
Sadat Waleed

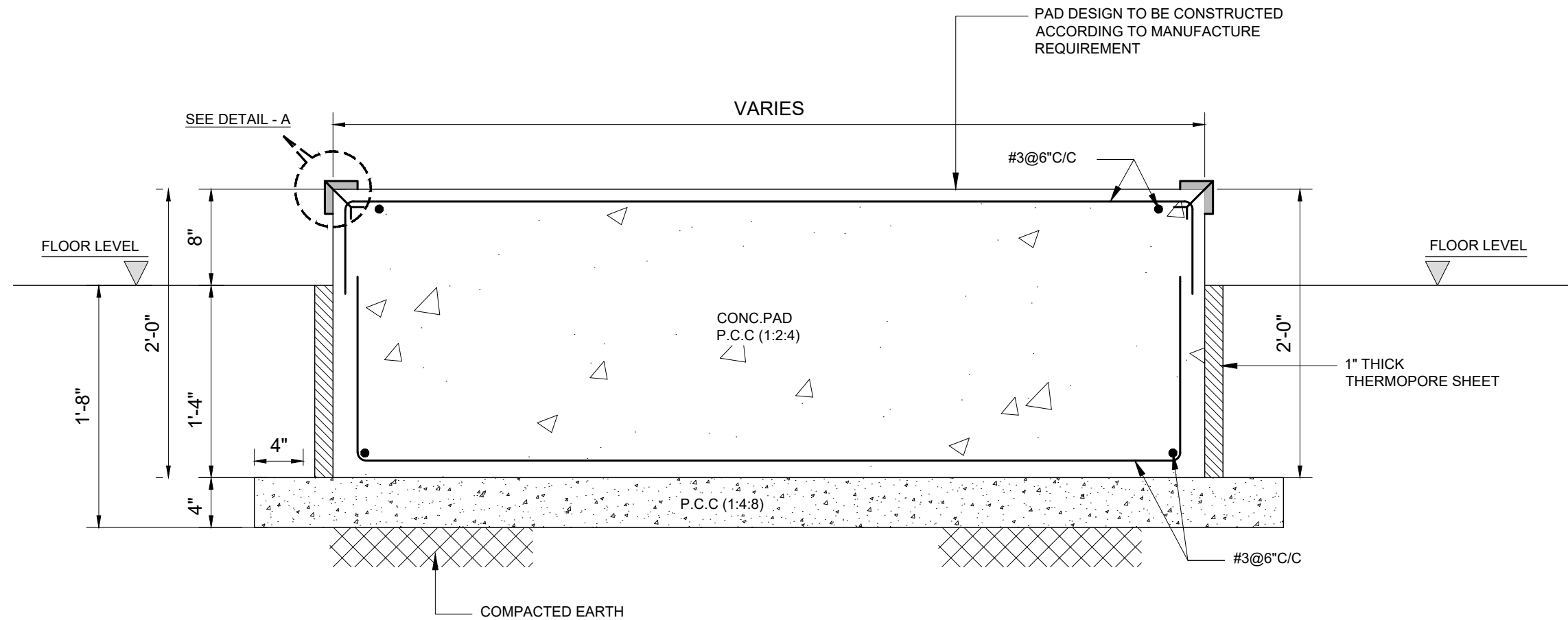
DATE:  
July, 2022

DRAWING NO:  
**PS-14**

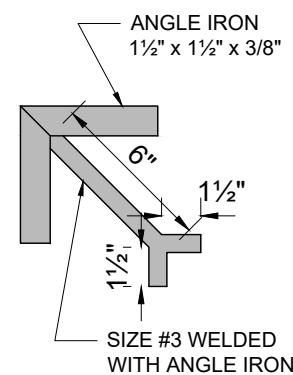
SCALE:  
1"=40'

SHEET:  
1 OF 1

JOB NO:  
488-01



TYP. DETAIL OF PAD FOUNDATION  
FOR GENERATOR



DETAIL - A

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

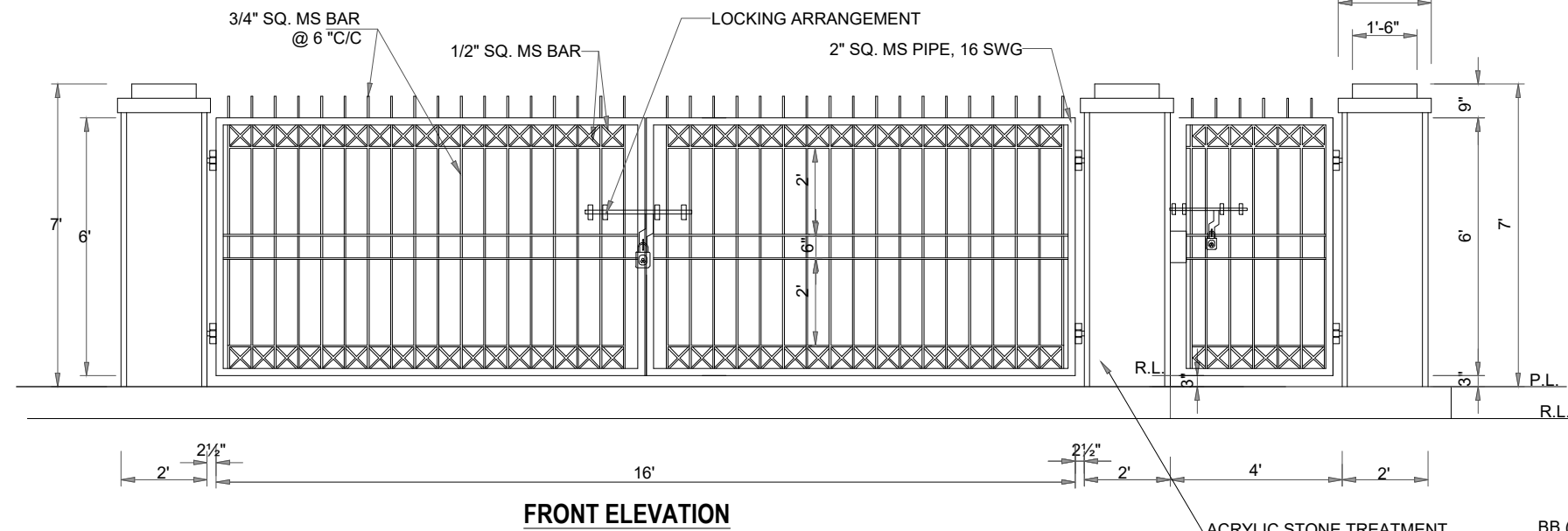
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 228

DRAWING TITLE:  
**GENERATOR PAD FOUNDATION DETAIL (KAMALIA)**

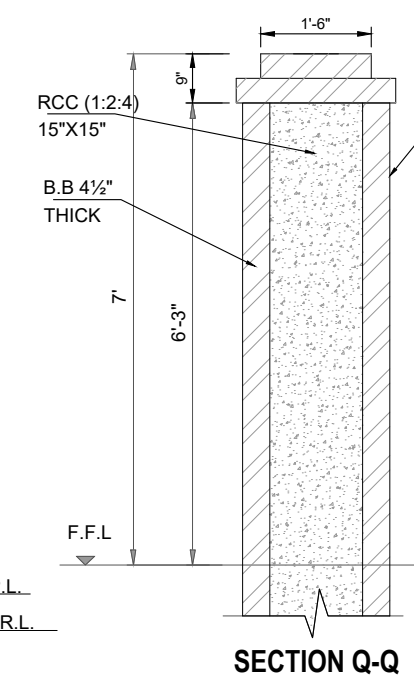
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
July, 2022

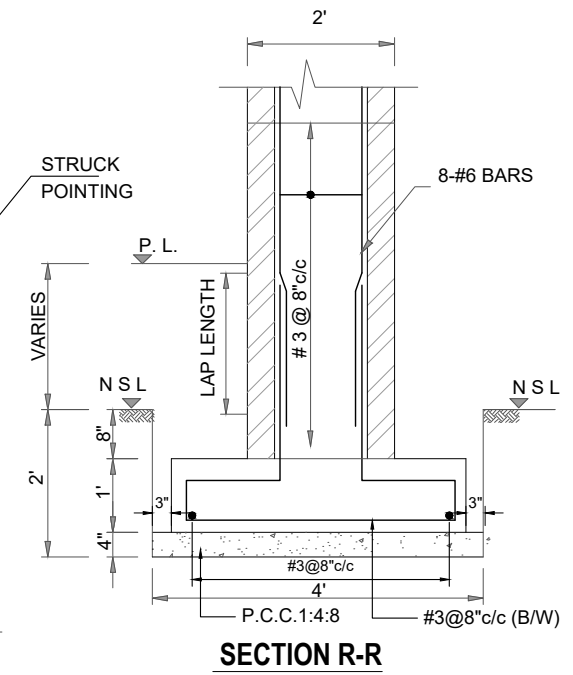
DRAWING NO:  
**PS-15**  
 SCALE:  
3/8"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



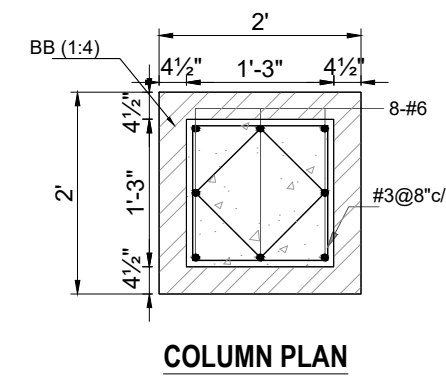
**FRONT ELEVATION**



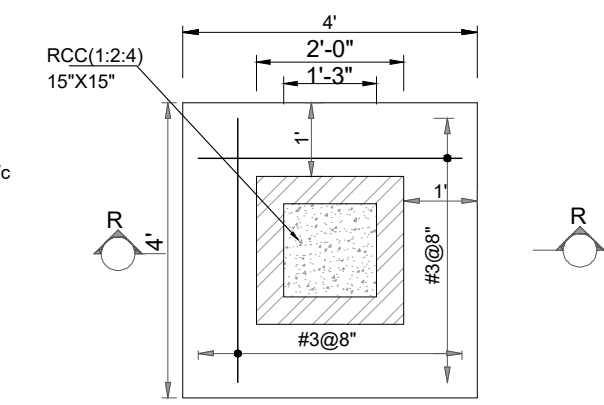
**SECTION Q-Q**



**SECTION R-R**



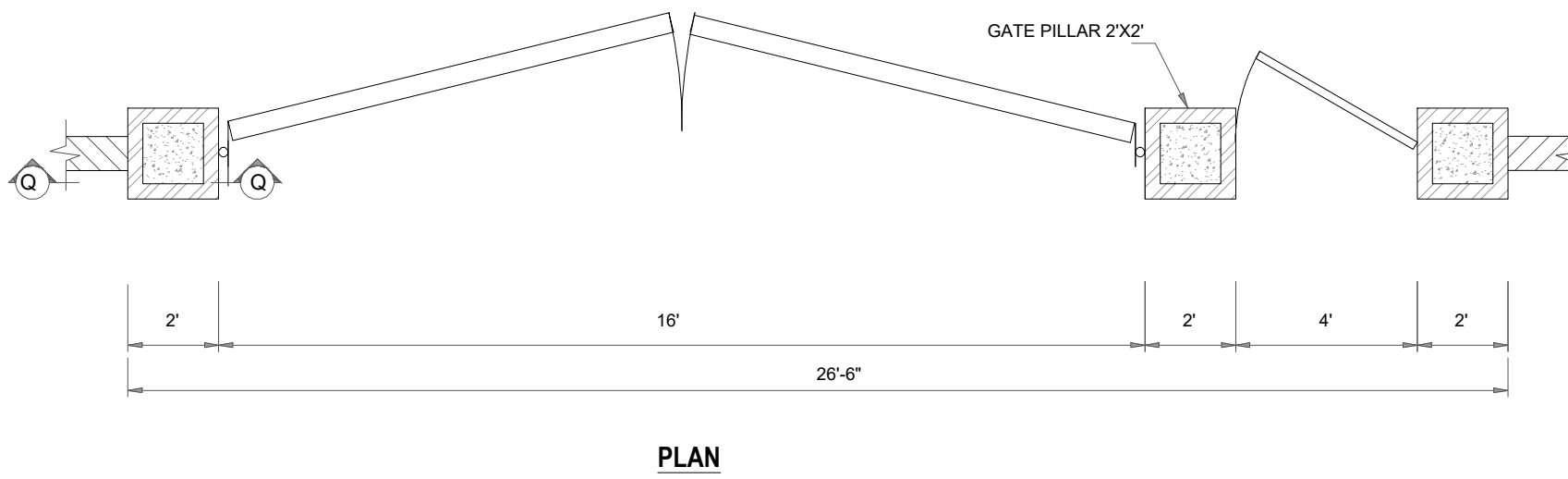
**COLUMN PLAN**



**COLUMN FOOTING**

**NOTES**

1. FOUNDATION HAS BEEN DESIGNED WITH A BEARING CAPACITY OF 0.75 TON/SFT. AT A DEPTH OF 3 FEET FROM N.S.L.
2. USE CONCRETE HAVING MINIMUM CUBE STRENGTH OF 3,000 PSI (NOMINAL MIX 1:2:4) FOR ALL CONCRETE WORKS.
3. USE DEFORMED STEEL HAVING MINIMUM YIELD STRENGTH OF 60,000 PSI.
4. ALL STEEL STRUCTURAL SURFACES TO BE TREATED WITH ONE COAT OF PRIMER (RED OXIDE) AND TWO COATS OF ENAMEL PAINT OF APPROVED BRAND & SPECIFICATIONS. THE COST OF PAINTING SHOULD BE INCLUDED IN CONTRACTOR'S APPROVED/BID RATE.
5. HORIZONTAL DPC IS OF CEMENT CONCRETE (1:2:4), 2" THICK WITH ONE COAT OF BITUMEN AND A LAYER OF POLYTHENE SHEET OF 500 GAUGE.



**PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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 E-mail: info@jers.com.pk, mail@jers.com.pk  
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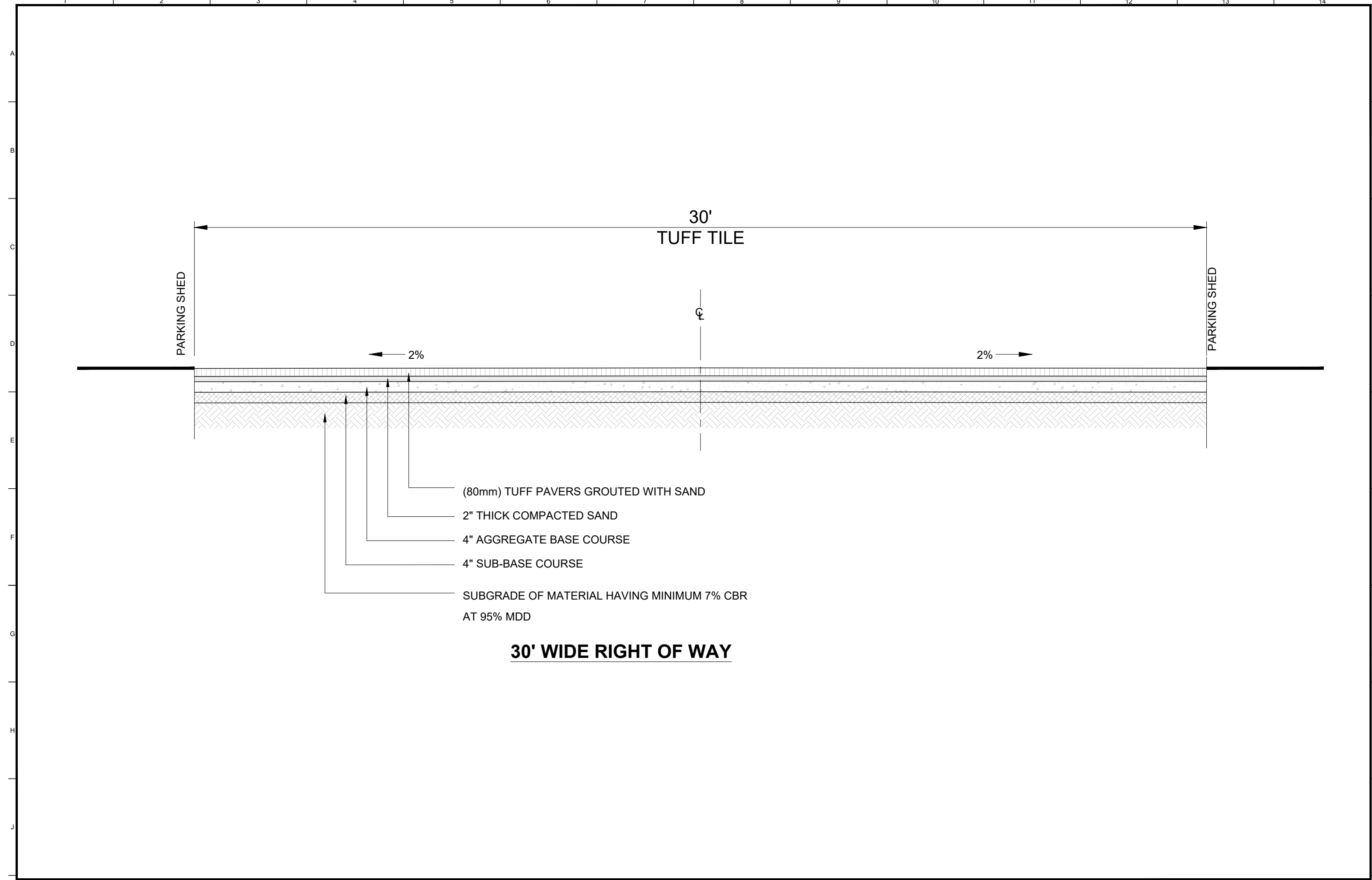
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 229

DRAWING TITLE:  
**PROPOSED ENTERANCE GATE (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

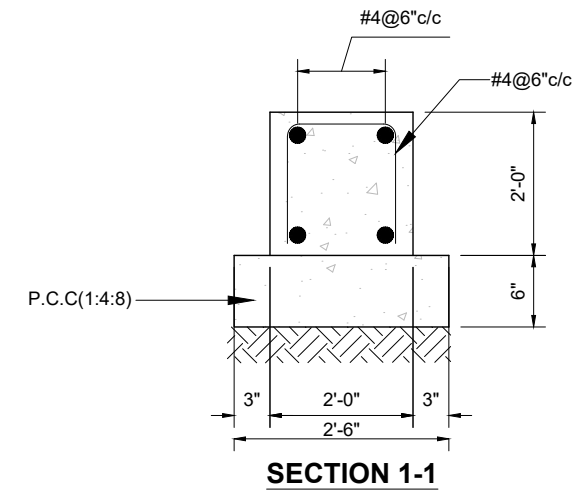
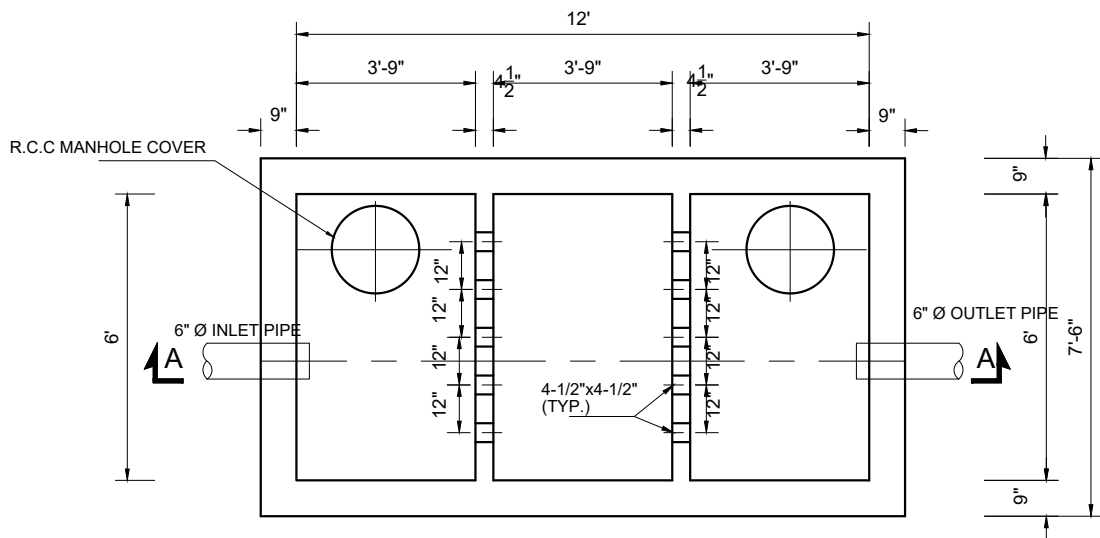
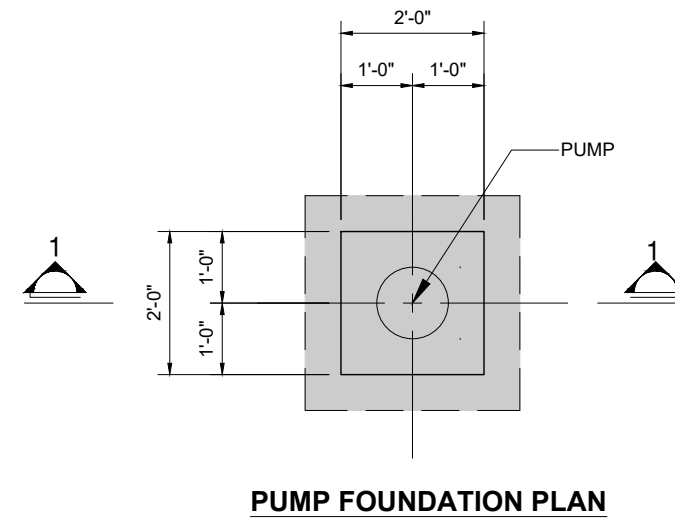
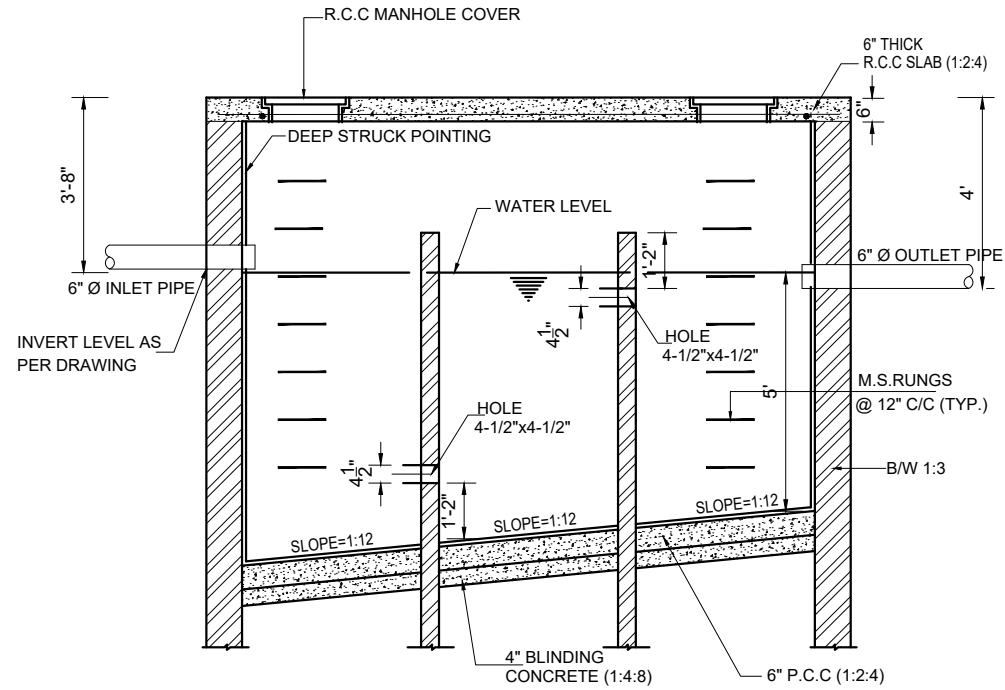
DRAWN BY:  
Asif  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
July, 2022

DRAWING NO:  
**PS-16**  
 SCALE:  
 UNIT=FEET  
 SHEET:  
 JOB NO:  
488-01



CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 230	DRAWING TITLE: <b>TYPICAL ROAD CROSS SECTION (KAMALIA)</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>REV.</td><td>DATE</td><td>DESCRIPTION</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	REV.	DATE	DESCRIPTION													DRAWN BY: Munir CHECKED BY: Sadat Waleed DATE: July, 2022	DRAWING NO: <b>PS-17</b> SCALE: 3/8"=1'-0" SHEET: 1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION																			





CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

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 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 231

DRAWING TITLE:  
**PUMP PAD FOUNDATION & SEPTIC TANK DETAIL (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

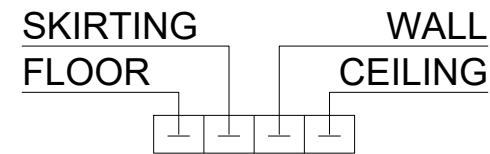
DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
July, 2022

DRAWING NO:  
**PS-18**  
 SCALE:  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01

# **ARCHITECTURAL DRAWINGS**

## SCHEDULE OF INTERNAL FINISHES

### LEGEND



- ① PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
- ② CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR  
7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.  
(MATT FINISH ON FLOOR & GLAZED ON WALL)
- ③ PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
- ④ DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
- ⑤ DISTAMPER PAINT
- ⑥ P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
- ⑦ 4" HIGH PORCELAIN TILES SKIRTING

## SCHEDULE OF EXTERNAL FINISHES

- ⑧ DEEP STRUCK POINTING
- ⑨ 9"X4½"X1½" TH. TILES

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

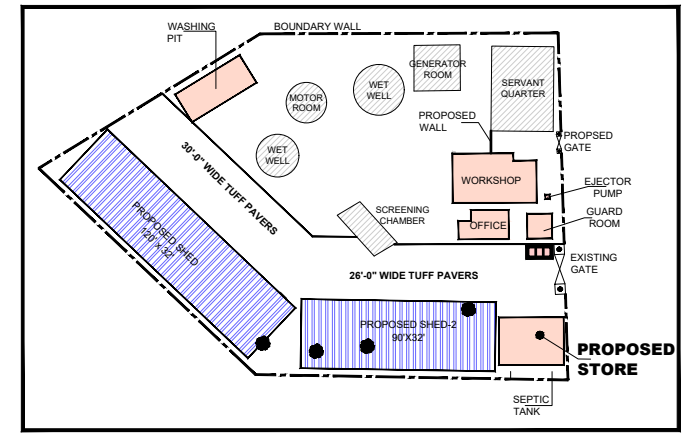
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 233

DRAWING TITLE:  
**LEGEND & NOTES  
 PROPOSED STORE  
 (KAMALIA)**

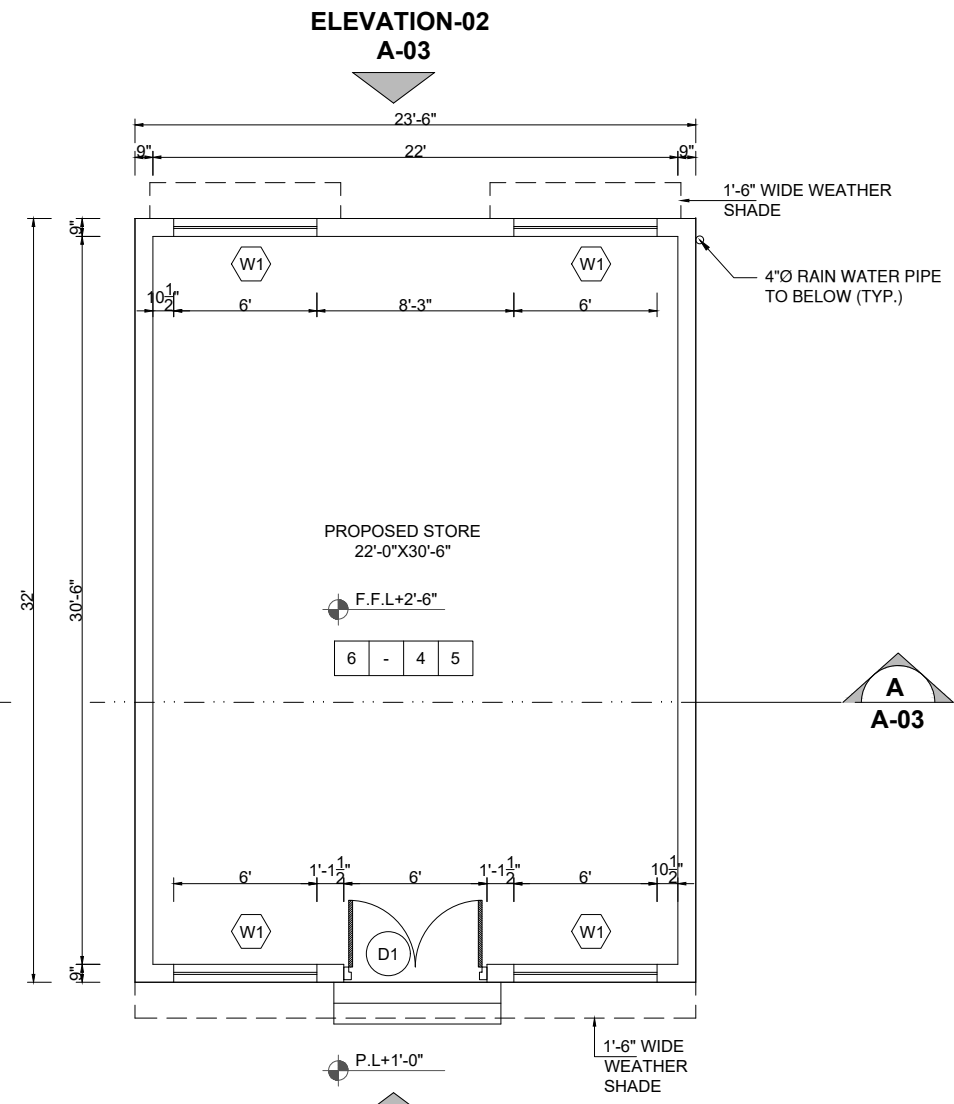
REV.	DATE	DESCRIPTION
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DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June,2022

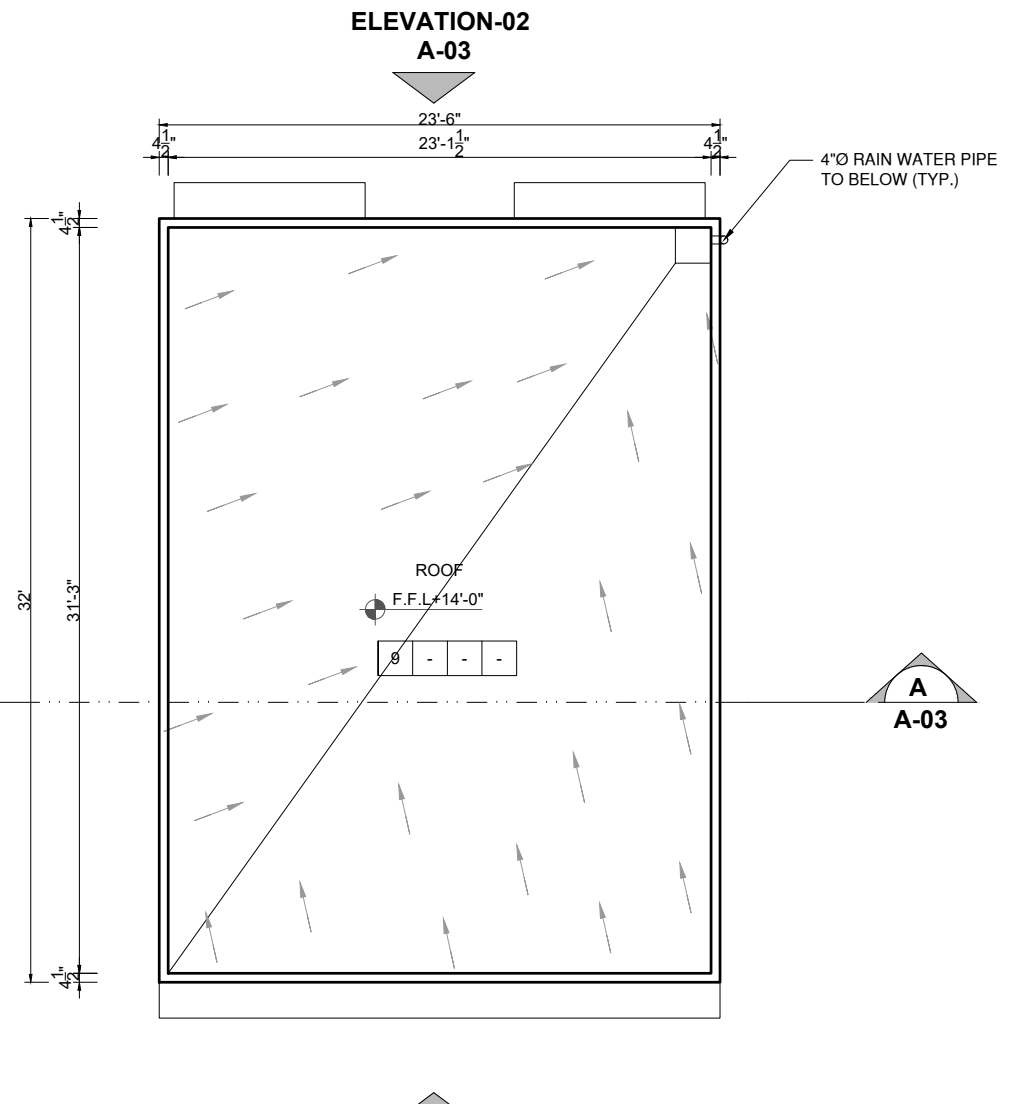
DRAWING NO:  
**A-01**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**KEY PLAN**



**ELEVATION-01  
A-03  
GROUND FLOOR PLAN**



**ELEVATION-01  
A-03  
ROOF PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

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 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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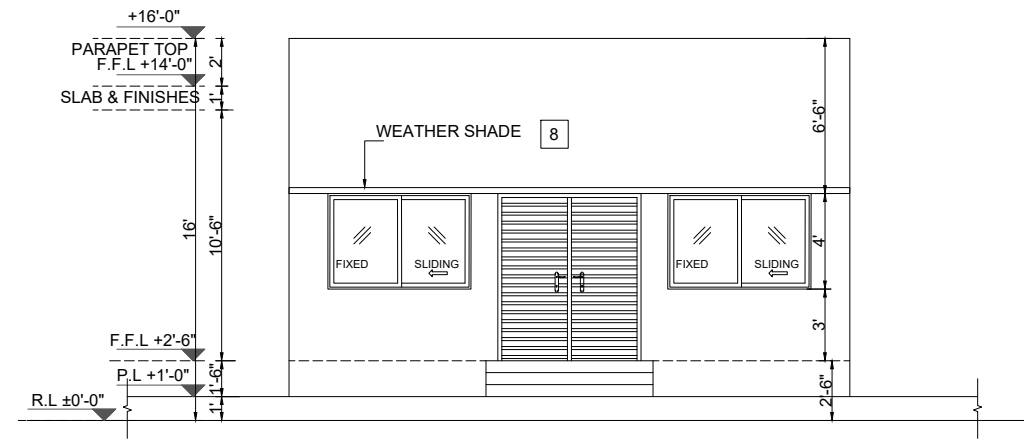
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 234

DRAWING TITLE:  
**GROUND FLOOR & ROOF PLAN  
 PROPOSED STORE  
 (KAMALIA)**

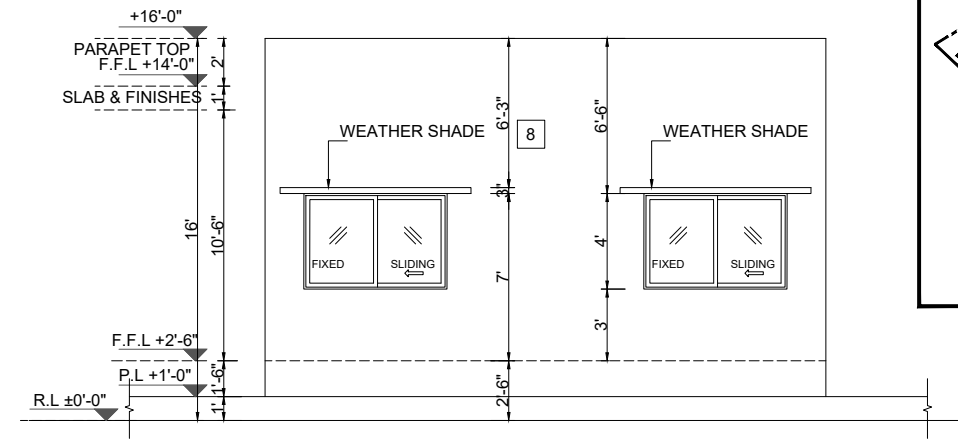
REV.	DATE	DESCRIPTION

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

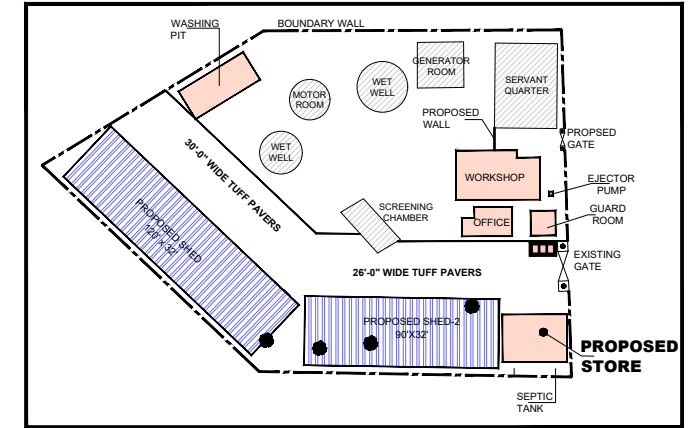
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 SHEET:  
1 OF 1  
 JOB NO:  
488-01



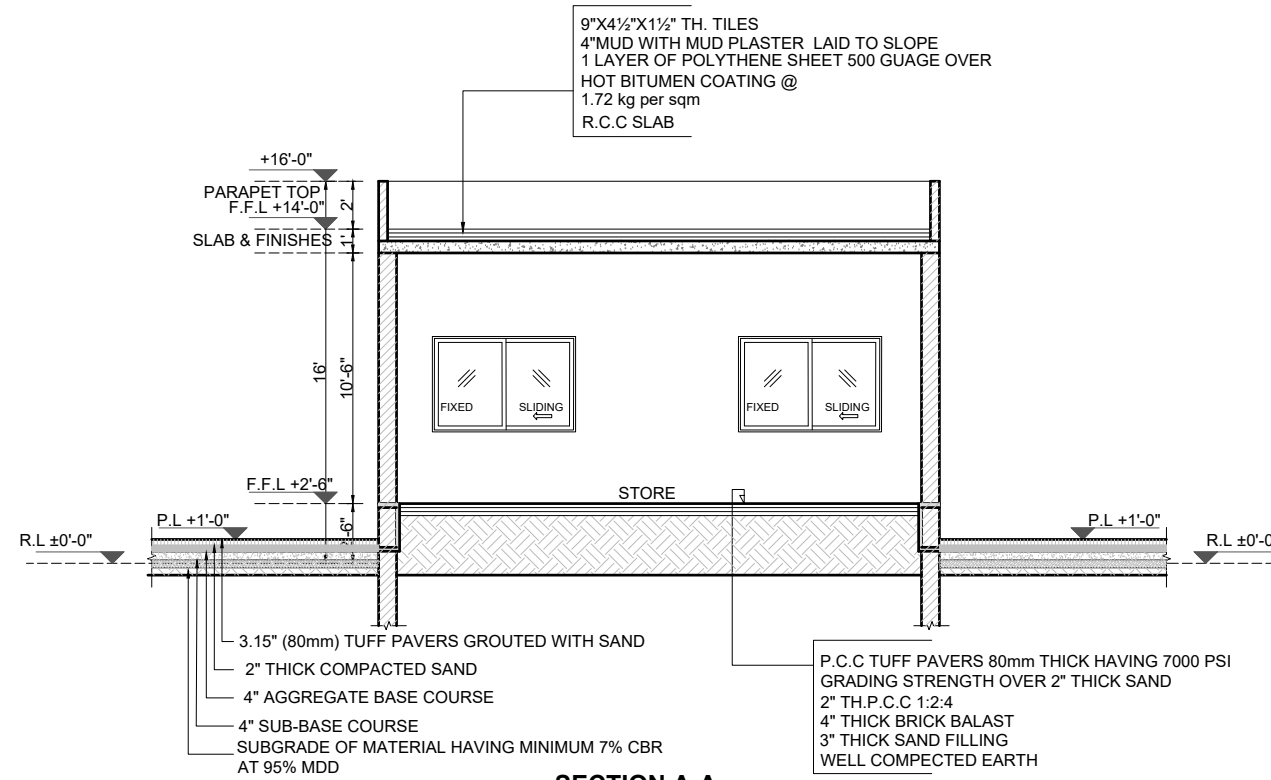
**ELEVATION-01**



**ELEVATION-02**



**KEY PLAN**



**SECTION A-A**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
 FUND COMPANY  
 (PMDFC)**

CONSULTANTS:  

**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

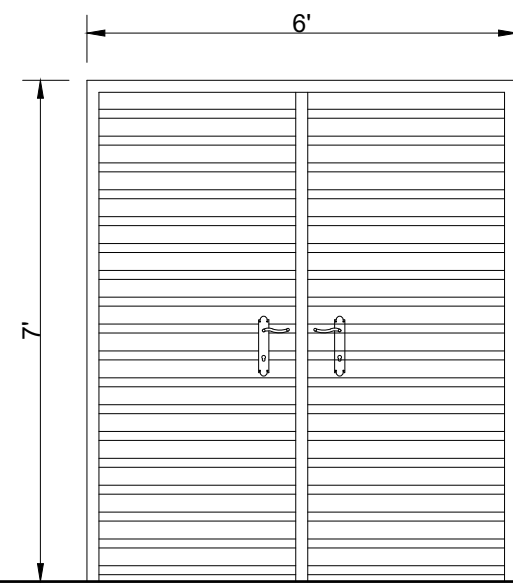
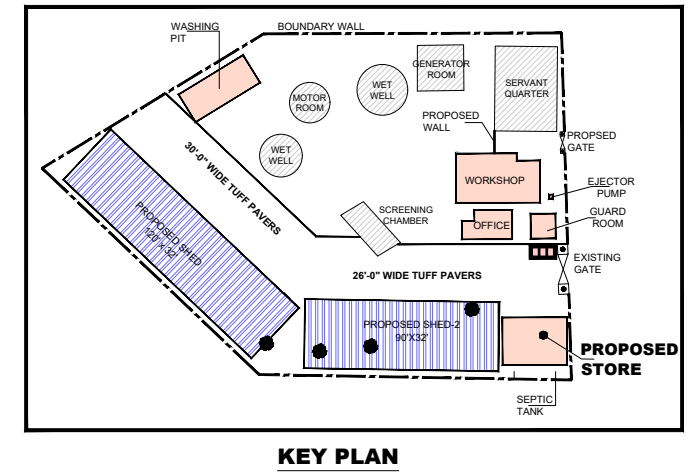
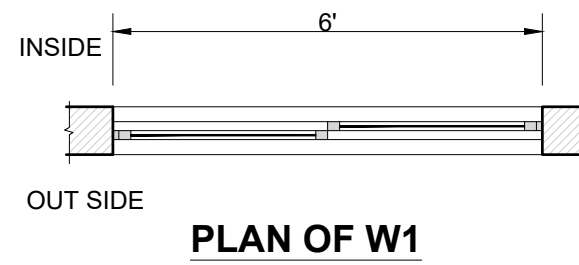
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 235

DRAWING TITLE:  
**ELEVATION-01,02& SECTION A-A  
 PROPOSED STORE  
 (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

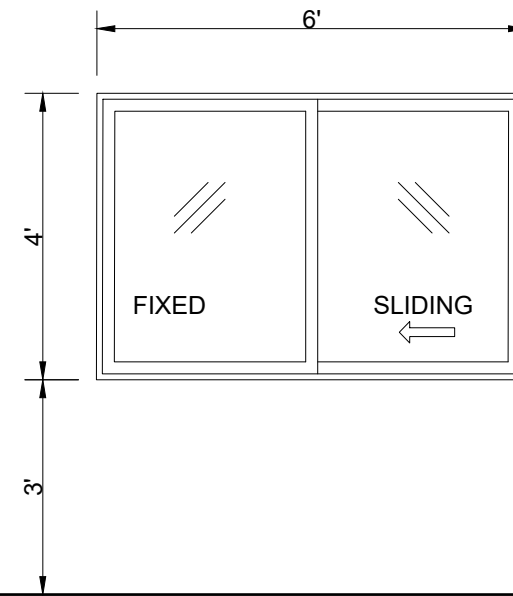
DRAWN BY:  
 Munir  
 CHECKED BY:  
 Sadat Waleed  
 DATE:  
 June, 2022

DRAWING NO:  
**A-03**  
 SCALE:  
 1/8"=1'-0"  
 SHEET:  
 1 OF 1  
 JOB NO:  
 488-01



**ELEVATION OF D1**

SIZE=6'-0"x7'-0"  
 QUANTITY= 01 NOS. HOLLOW  
 FLUSH DOOR WITH COMMERCIAL  
 PLY(3 PLY)



**ELEVATION OF W1**

SIZE=6'-0"x4'-0"  
 QUANTITY= 04 NOS.  
 STEEL SLIDING WINDOW,  
 FIXED WITH 5MM THICK GLASS  
 INCLUDING WIRE GAUZE

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
 FUND COMPANY  
 (PMDFC)**

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 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 236

DRAWING TITLE:  
**DOOR WINDOW SCHEDULE  
 PROPOSED STORE  
 (KAMALIA)**

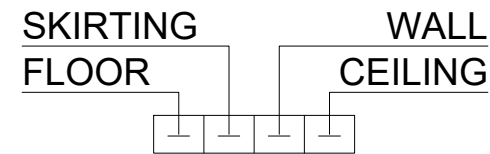
REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

DRAWING NO:  
**A-04**  
 SCALE:  
3/8"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01

## SCHEDULE OF INTERNAL FINISHES

### LEGEND



- ① PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
- ② CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR  
7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.  
(MATT FINISH ON FLOOR & GLAZED ON WALL)
- ③ PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
- ④ DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
- ⑤ DISTAMPER PAINT
- ⑥ P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
- ⑦ 4" HIGH PORCELAIN TILES SKIRTING

## SCHEDULE OF EXTERNAL FINISHES

- ⑧ DEEP STRUCK POINTING
- ⑨ 9"X4½"X1½" TH. TILES

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
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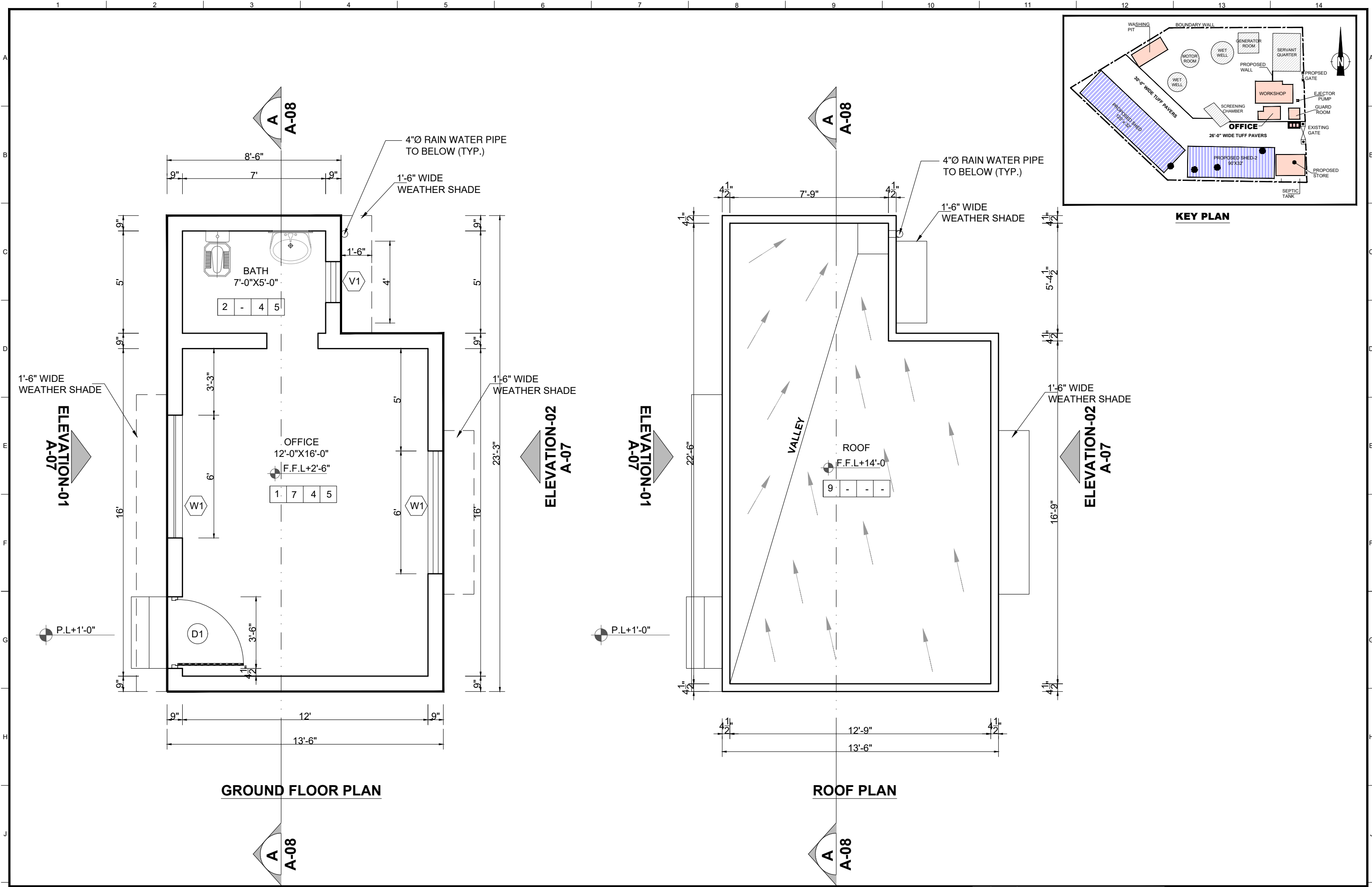
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 237

DRAWING TITLE:  
**LEGEND & NOTES**  
**OFFICE BLOCK**  
**(KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

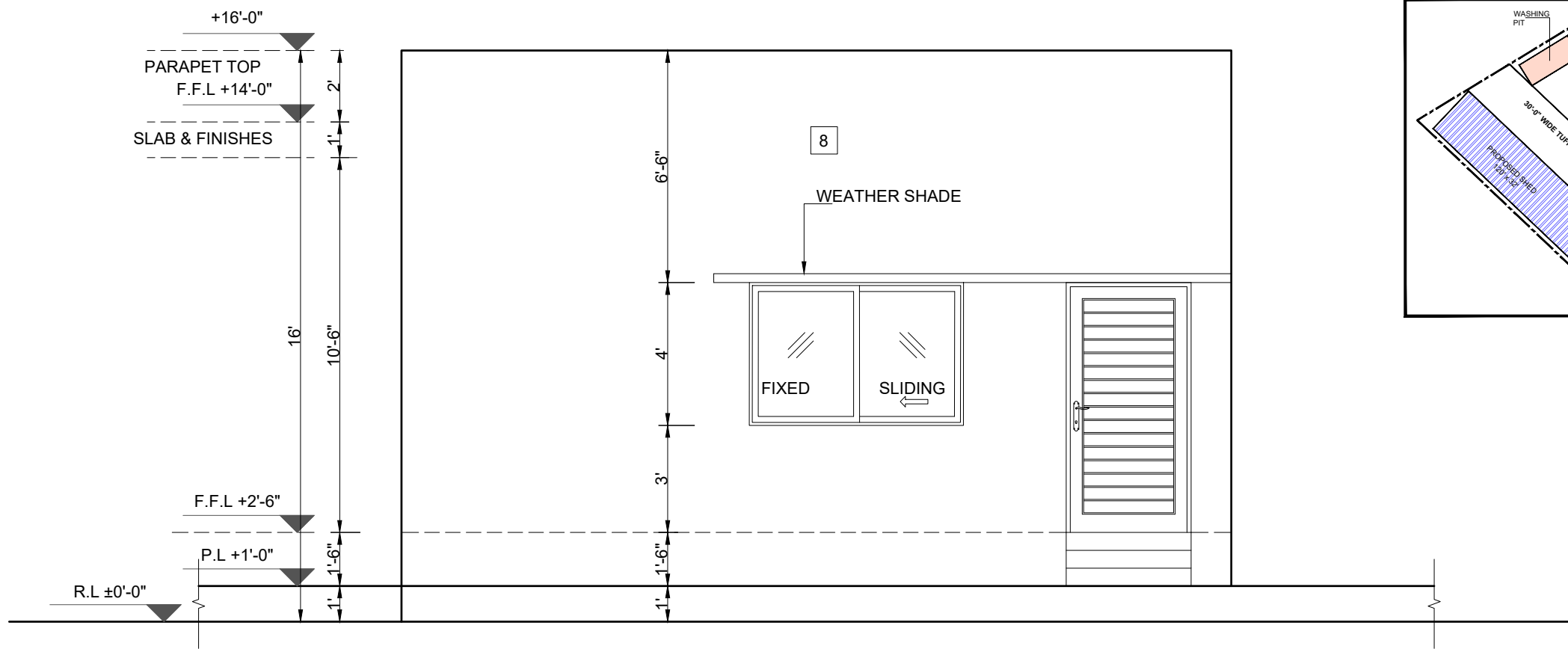
DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June,2022

DRAWING NO:  
**A-05**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01

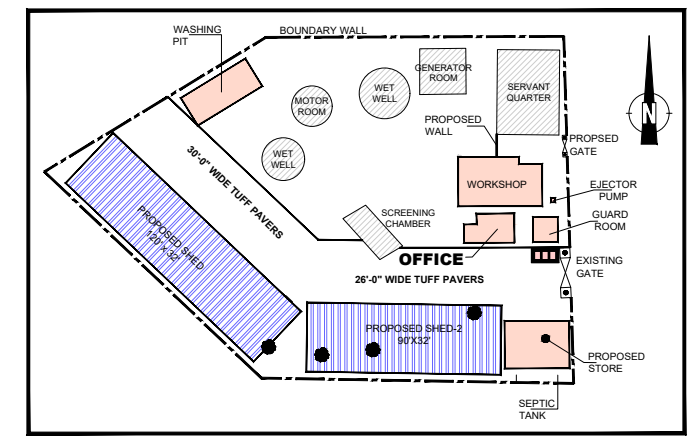


CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 238	DRAWING TITLE: <b>GROUND FLOOR &amp; ROOF PLAN          OFFICE BLOCK          (KAMALIA)</b>	DRAWN BY: Munir	DRAWING NO: <b>A-06</b>												
				CHECKED BY: Sadat Waleed		SCALE: UNIT=FEET 1/4"=1'-0"	SHEET: 1 OF 1 JOB NO: 488-01										
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REV.	DATE	DESCRIPTION															

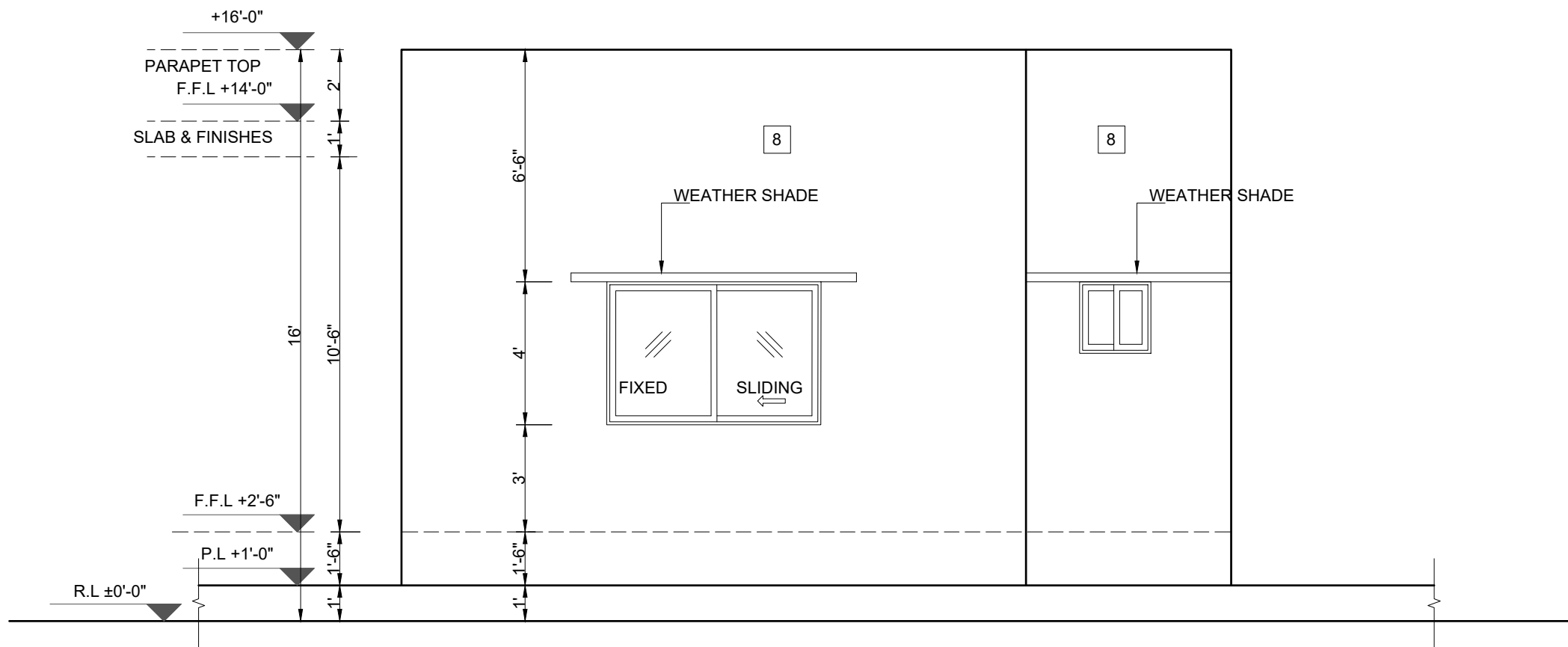




**ELEVATION-01**



**KEY PLAN**



**ELEVATION-02**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

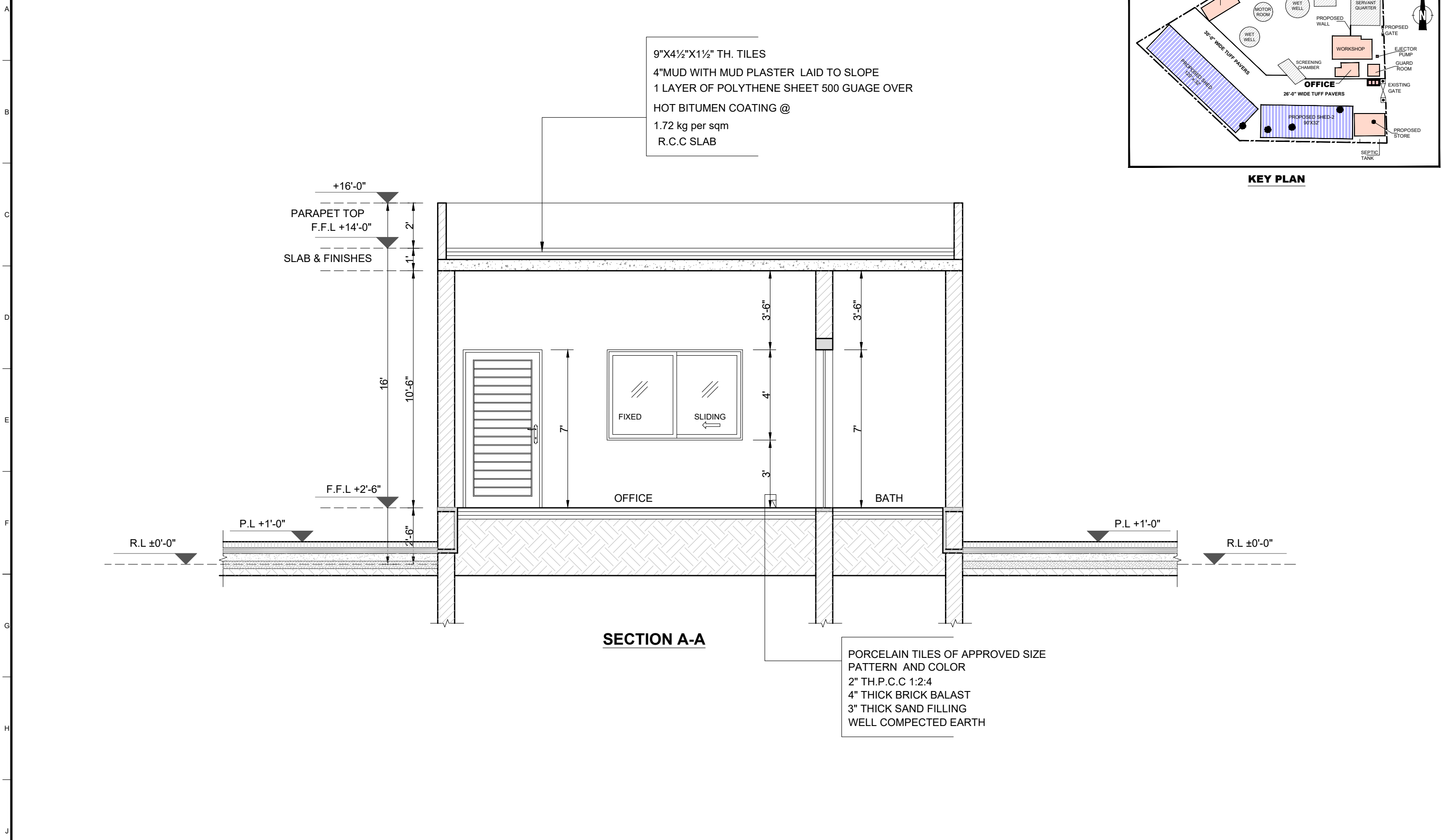
CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 239

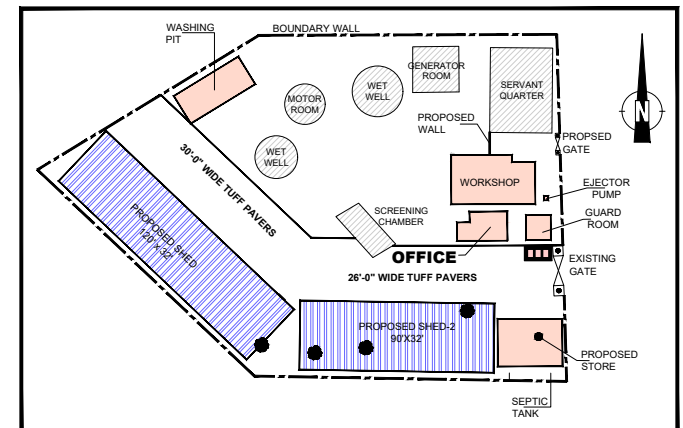
DRAWING TITLE:  
**ELEVATION-01,02**  
**OFFICE BLOCK**  
**(KAMALIA)**

REV.	DATE	DESCRIPTION

DRAWN BY: Munir	DRAWING NO: <b>A-07</b>
CHECKED BY: Sadat Waleed	
DATE: June, 2022	SCALE: 1/4"=1'-0"
	SHEET: 1 OF 1
	JOB NO: 488-01



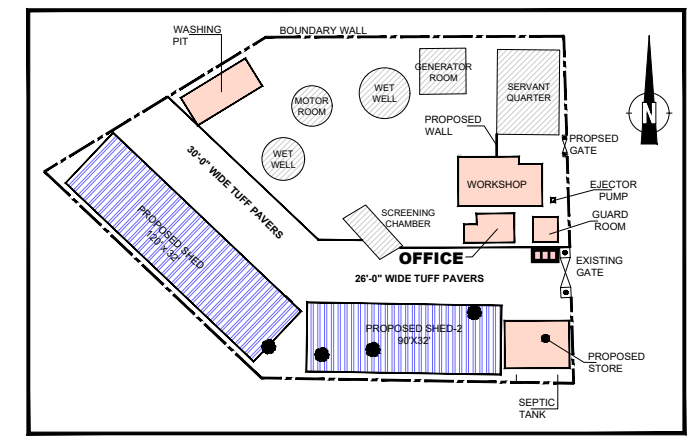
9"X4½"X1½" TH. TILES  
 4" MUD WITH MUD PLASTER LAID TO SLOPE  
 1 LAYER OF POLYTHENE SHEET 500 GAUGE OVER  
 HOT BITUMEN COATING @  
 1.72 kg per sqm  
 R.C.C SLAB



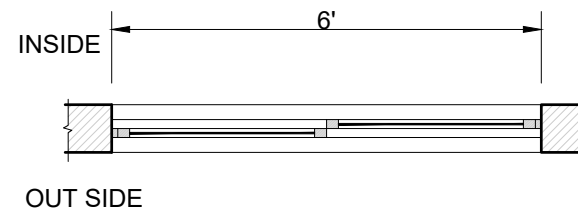
**KEY PLAN**

**SECTION A-A**

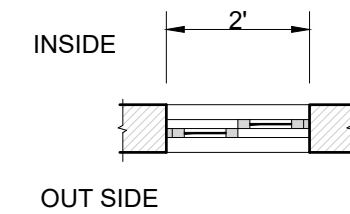
PORCELAIN TILES OF APPROVED SIZE  
 PATTERN AND COLOR  
 2" TH. P.C.C 1:2:4  
 4" THICK BRICK BALAST  
 3" THICK SAND FILLING  
 WELL COMPECTED EARTH



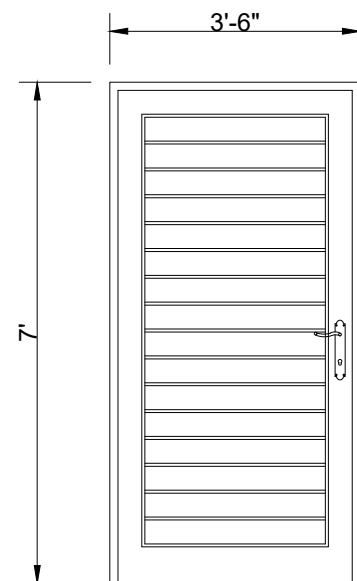
**KEY PLAN**



**PLAN OF W1**

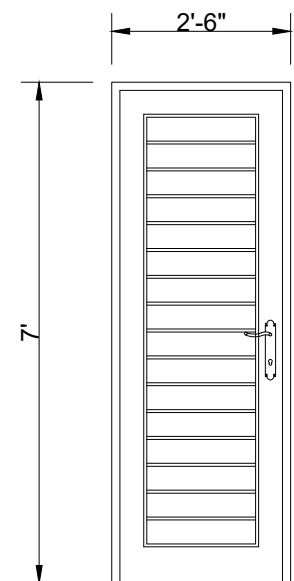


**PLAN OF V1**



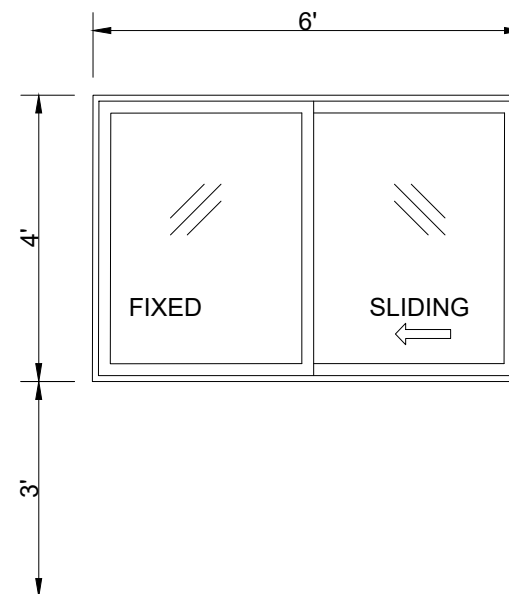
**ELEVATION OF D1**

SIZE=3'-6"x7'-0"  
 QUANTITY= 01 NOS. HOLLOW  
 FLUSH DOOR WITH COMMERCIAL  
 PLY(3 PLY)



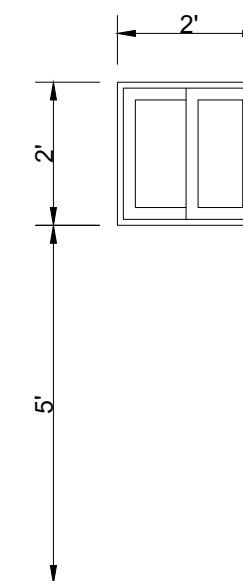
**ELEVATION OF D2**

SIZE=2'-6"x7'-0"  
 QUANTITY= 01 NOS. HOLLOW  
 FLUSH DOOR WITH COMMERCIAL  
 PLY(3 PLY)



**ELEVATION OF W1**

SIZE=6'-0"x4'-0"  
 QUANTITY= 02 NOS.  
 STEEL SLIDING WINDOW,  
 FIXED WITH 5MM THICK GLASS  
 INCLUDING WIRE GAUZE



**ELEVATION OF V1**

SIZE=2'-0"x2'-0"  
 QUANTITY= 01 NOS.  
 STEEL SLIDING WINDOW,  
 FIXED WITH 5MM THICK GLASS  
 INCLUDING WIRE GAUZE

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT  
 FUND COMPANY  
 (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 241

DRAWING TITLE:  
**DOOR WINDOW SCHEDULE  
 OFFICE BLOCK  
 (KAMALIA)**

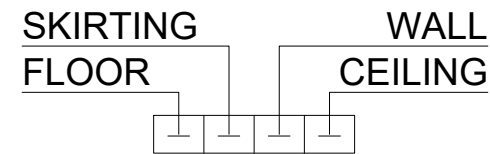
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
 Munir  
 CHECKED BY:  
 Sadat Waleed  
 DATE:  
 June, 2022

DRAWING NO:  
**A-09**  
 SCALE:  
 3/8"=1'-0"  
 SHEET:  
 1 OF 1  
 JOB NO:  
 488-01

## SCHEDULE OF INTERNAL FINISHES

### LEGEND



- ① PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
- ② CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR  
7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.  
(MATT FINISH ON FLOOR & GLAZED ON WALL)
- ③ PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
- ④ DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
- ⑤ DISTAMPER PAINT
- ⑥ P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
- ⑦ 4" HIGH PORCELAIN TILES SKIRTING

## SCHEDULE OF EXTERNAL FINISHES

- ⑧ DEEP STRUCK POINTING
- ⑨ 9"X4½"X1½" TH. TILES

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

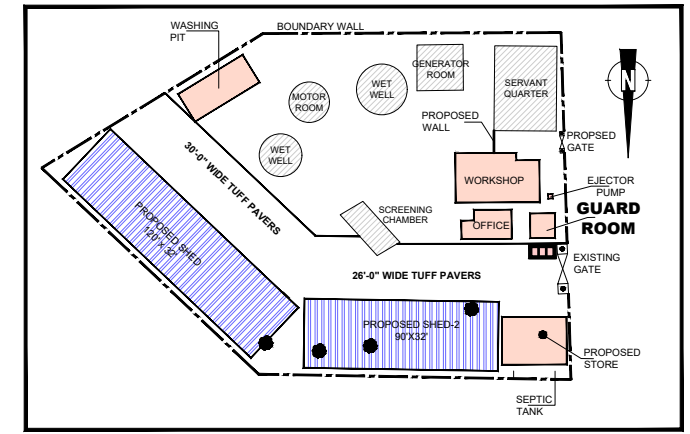
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 242

DRAWING TITLE:  
**LEGEND & NOTES  
 GUARD ROOM  
 (KAMALIA)**

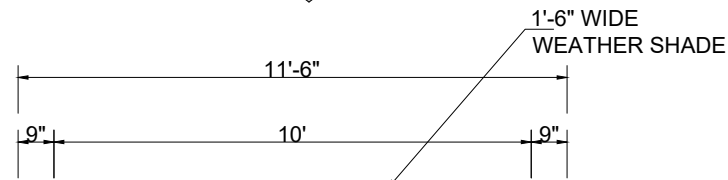
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June,2022

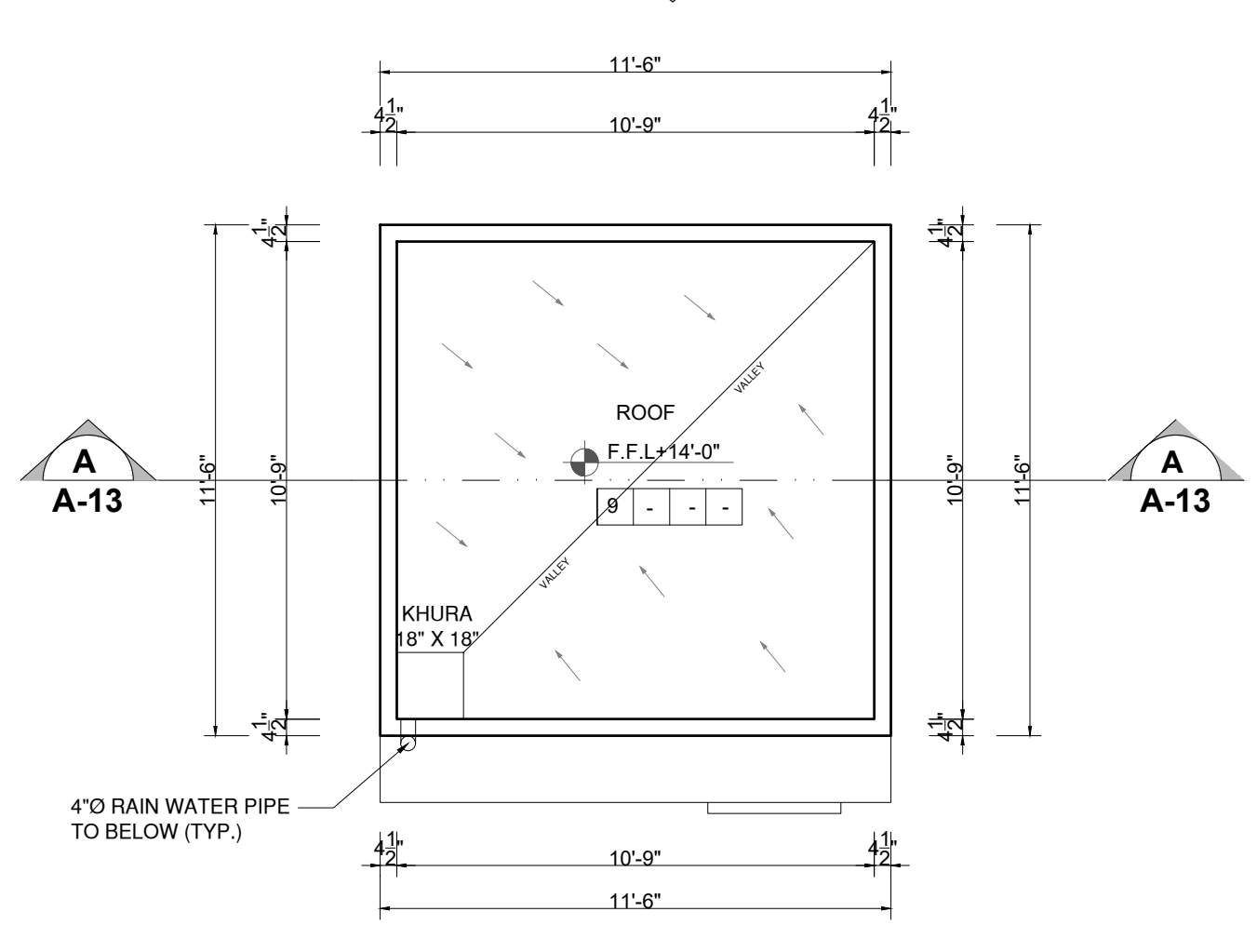
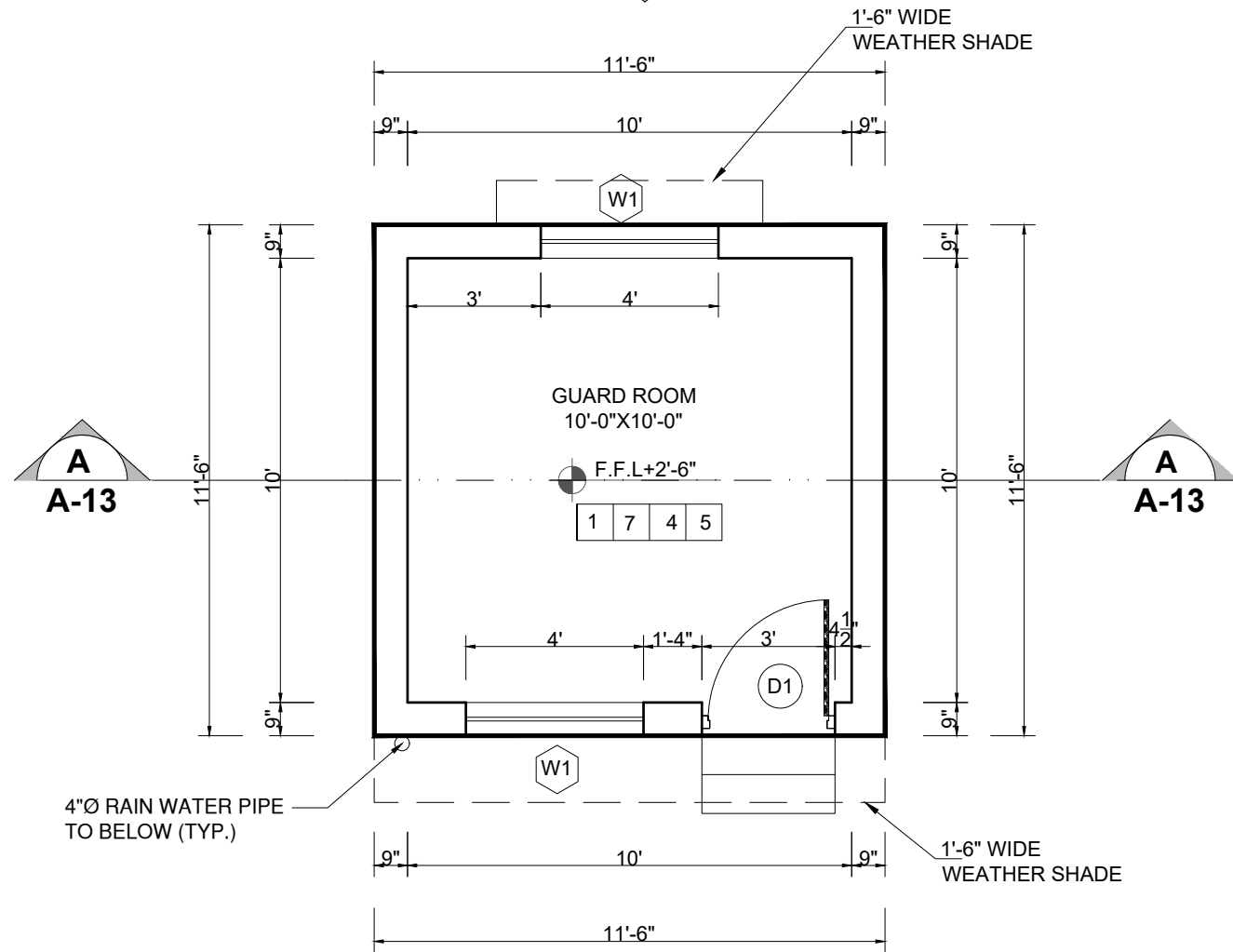
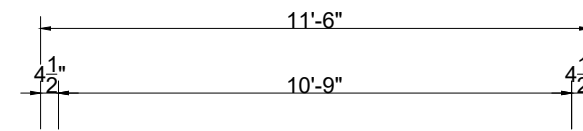
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**A-10**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**ELEVATION-02  
A-12**



**ELEVATION-02  
A-12**



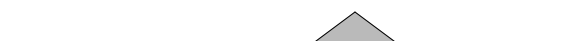
**GROUND FLOOR PLAN**

**ROOF PLAN**

**ELEVATION-01  
A-12**



**ELEVATION-01  
A-12**



CLIENT:  
**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

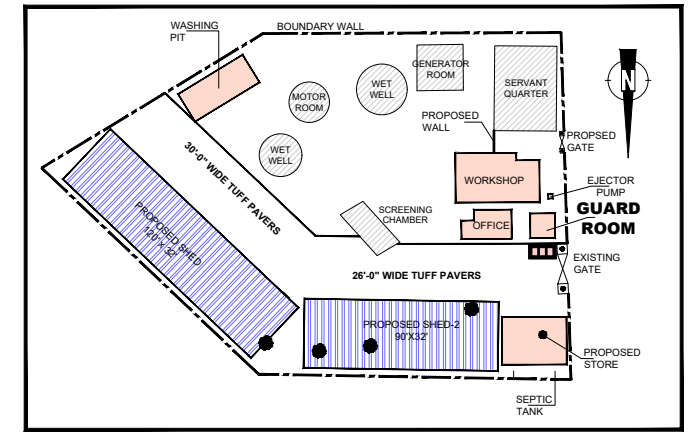
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 243

DRAWING TITLE:  
**GROUND FLOOR & ROOF PLAN  
 GUARD ROOM  
 (KAMALIA)**

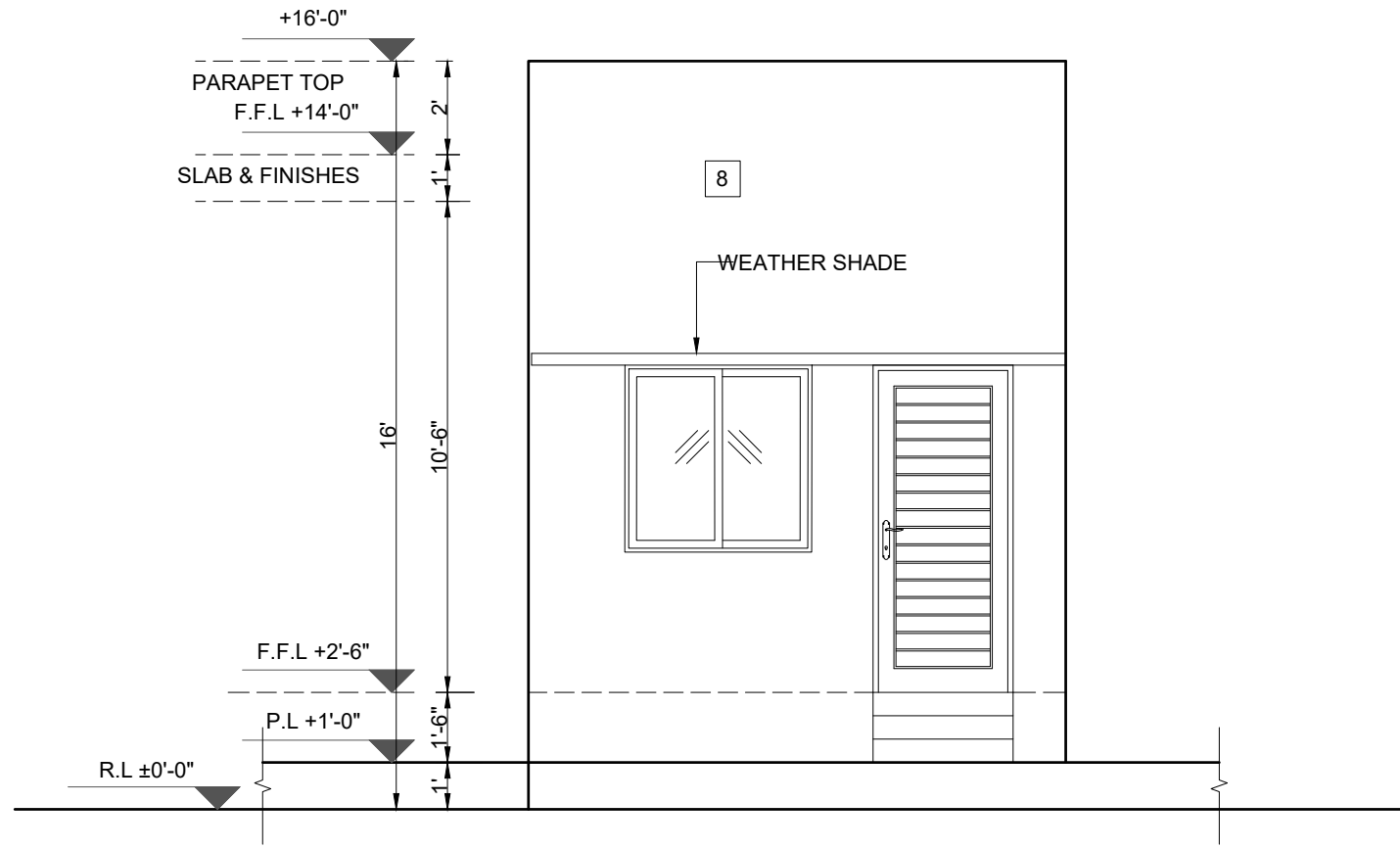
REV.	DATE	DESCRIPTION

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

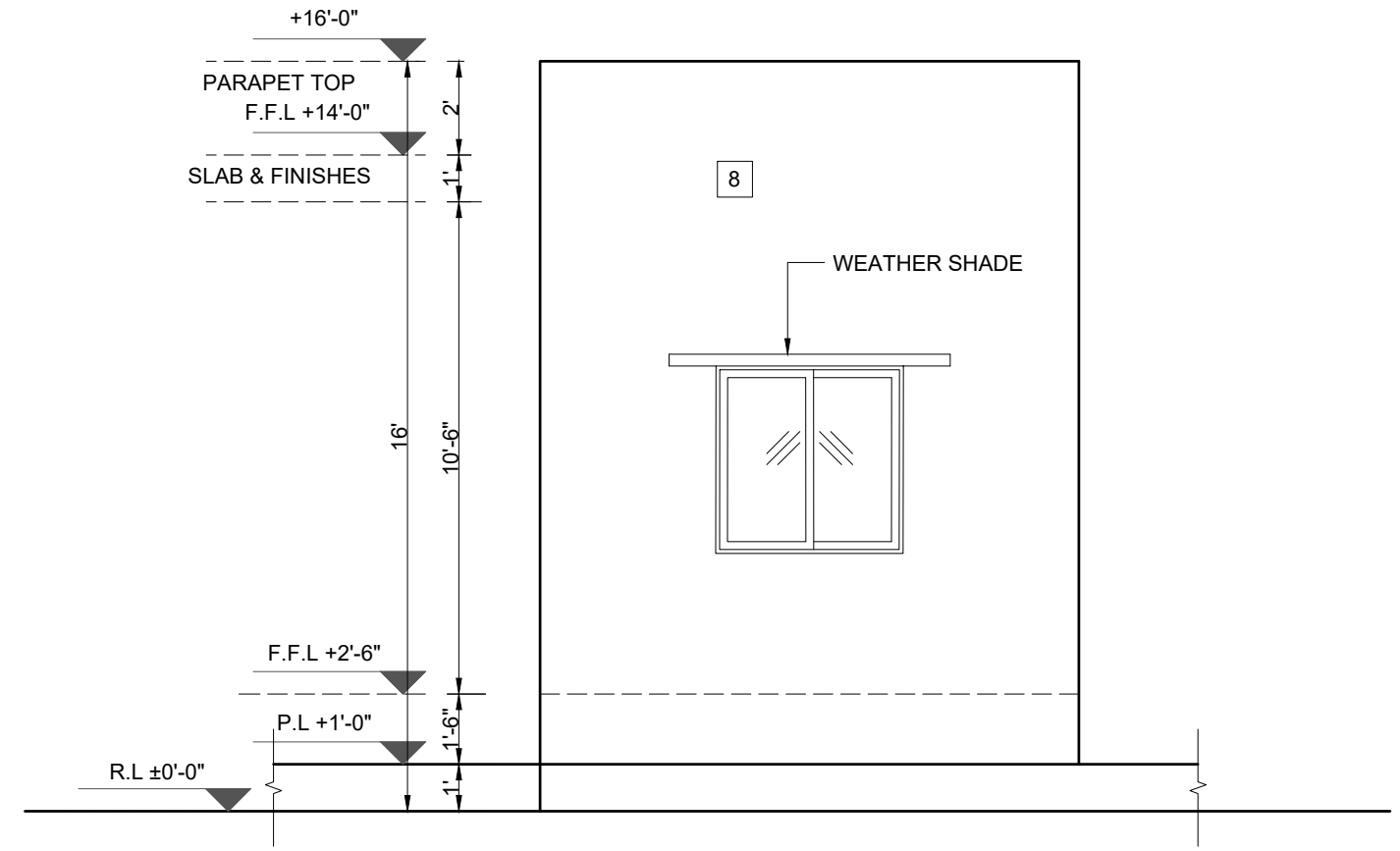
DRAWING NO:  
**A-11**  
 SCALE:  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**KEY PLAN**



**ELEVATION-01**



**ELEVATION-02**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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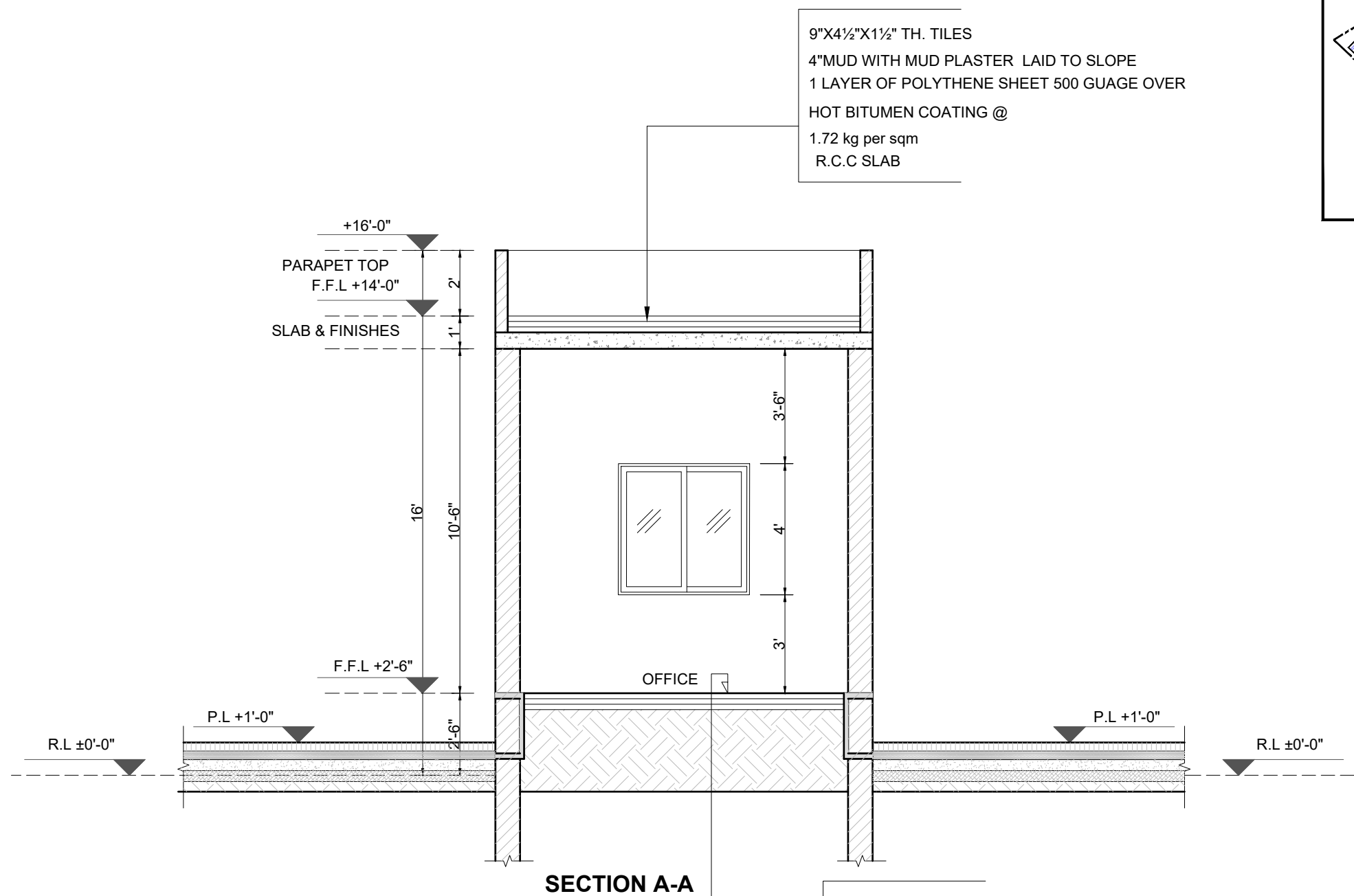
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 244

DRAWING TITLE:  
**ELEVATION-01 & 02  
 GUARD ROOM  
 (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

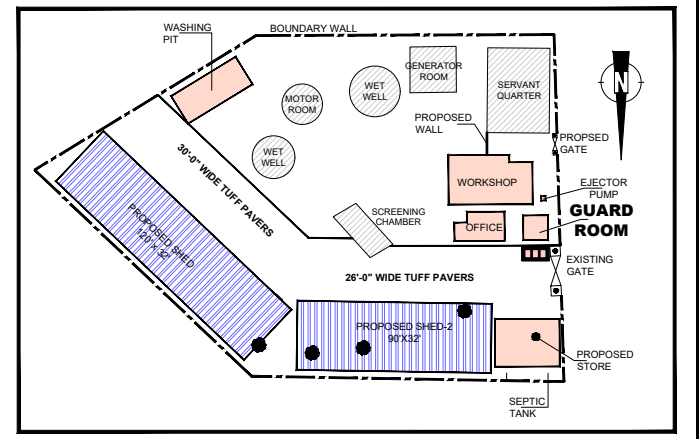
DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

DRAWING NO:  
**A-12**  
 SCALE:  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



9"X4½"X1½" TH. TILES  
 4" MUD WITH MUD PLASTER LAID TO SLOPE  
 1 LAYER OF POLYTHENE SHEET 500 GAUGE OVER  
 HOT BITUMEN COATING @  
 1.72 kg per sqm  
 R.C.C SLAB

PORCELAIN TILES OF APPROVED SIZE  
 PATTERN AND COLOR  
 2" TH.P.C.C 1:2:4  
 4" THICK BRICK BALAST  
 3" THICK SAND FILLING  
 WELL COMPECTED EARTH



**KEY PLAN**

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A

B

C

D

E

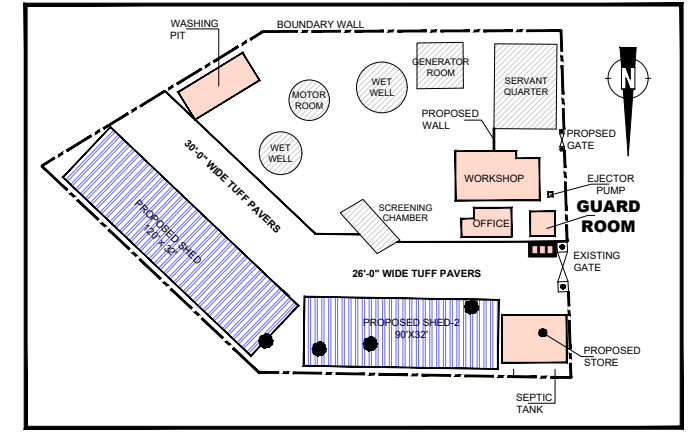
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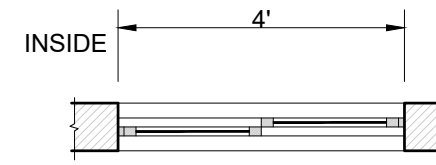
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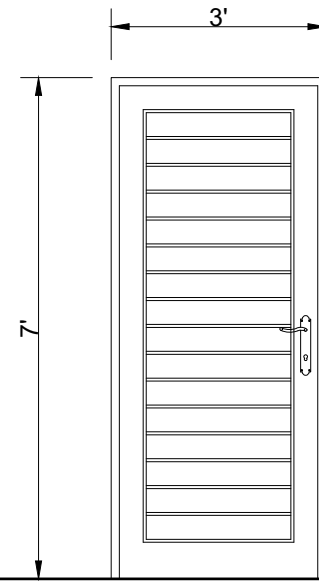
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**KEY PLAN**

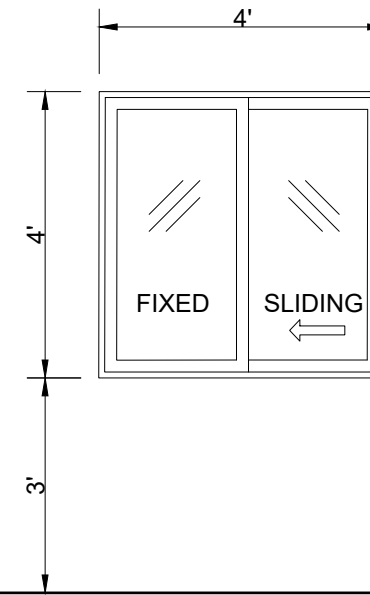


**PLAN OF W1**



**ELEVATION OF D1**

SIZE=3'-0"x7'-0"  
 QUANTITY= 01 NOS. HOLLOW  
 FLUSH DOOR WITH COMMERCIAL  
 PLY(3 PLY)



**ELEVATION OF W1**

SIZE=4'-0"x4'-0"  
 QUANTITY= 02 NOS.  
 STEEL SLIDING WINDOW,  
 FIXED WITH 5MM THICK GLASS  
 INCLUDING WIRE GAUZE

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 246

DRAWING TITLE:  
**DOOR WINDOW SCHEDULE  
 GUARD ROOM  
 (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June, 2022

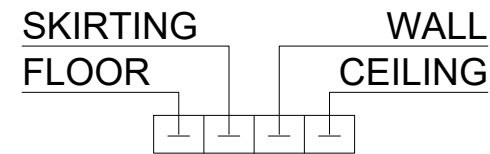
DRAWING NO:  
**A-14**  
 SCALE:  
3/8"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01

1 2 3 4 5 6 7 8 9 10 11 12 13 14



## SCHEDULE OF INTERNAL FINISHES

### LEGEND



- ① PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
- ② CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR  
7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.  
(MATT FINISH ON FLOOR & GLAZED ON WALL)
- ③ PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
- ④ DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
- ⑤ DISTAMPER PAINT
- ⑥ P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
- ⑦ 4" HIGH PORCELAIN TILES SKIRTING

## SCHEDULE OF EXTERNAL FINISHES

- ⑧ DEEP STRUCK POINTING
- ⑨ 9"X4½"X1½" TH. TILES

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

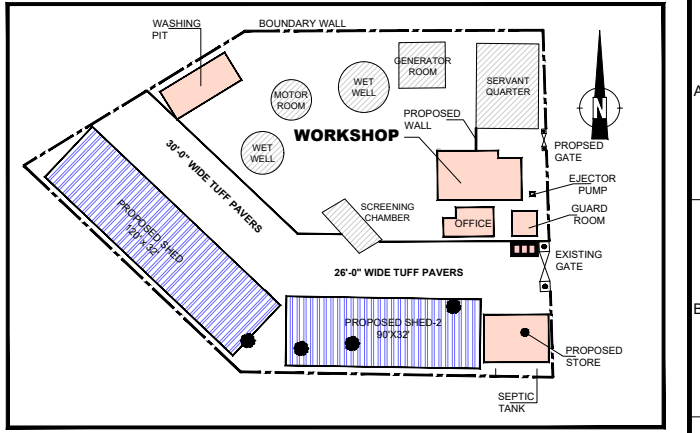
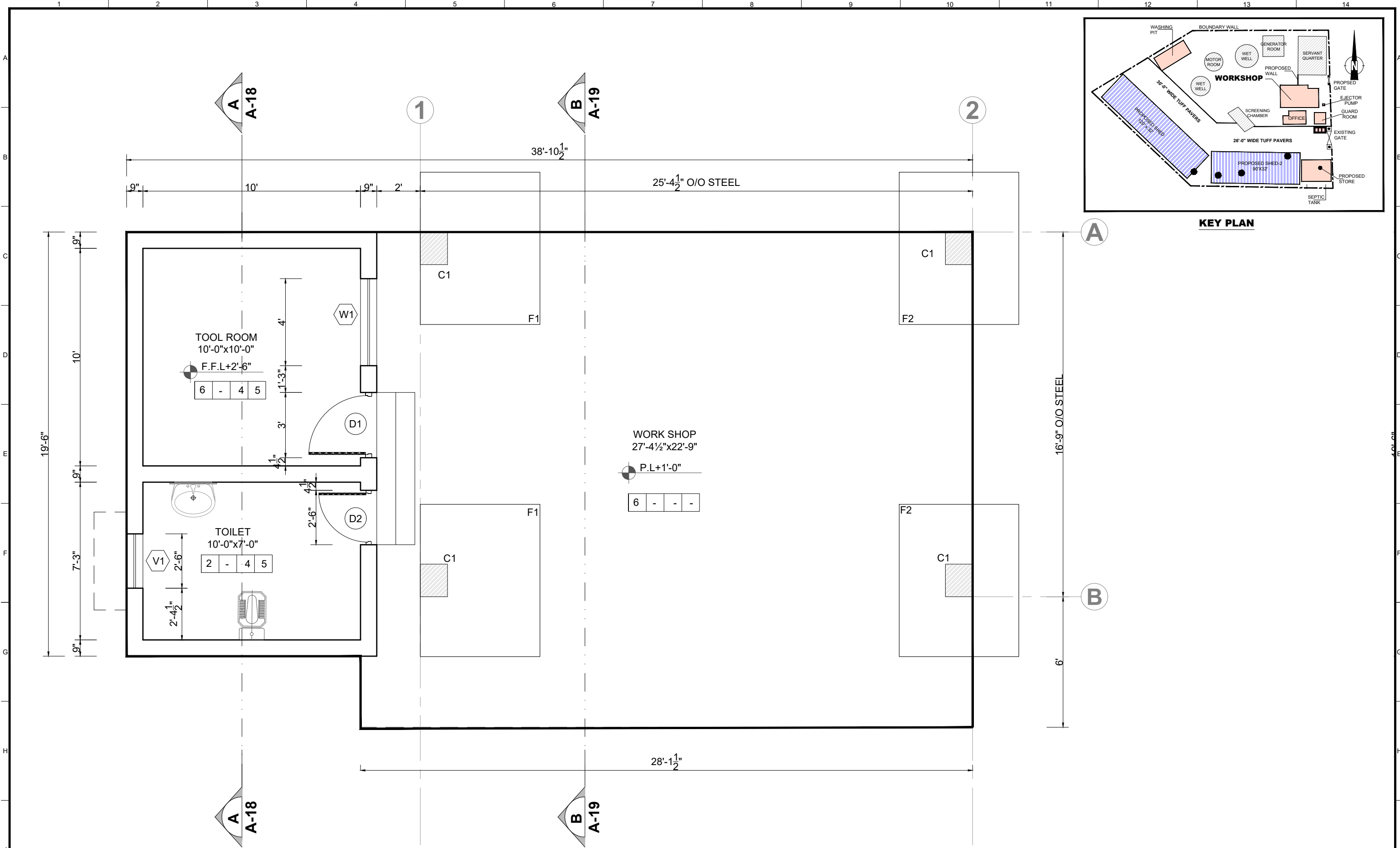
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 247

DRAWING TITLE:  
**LEGEND & NOTES WORKSHOP (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-



DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
June,2022

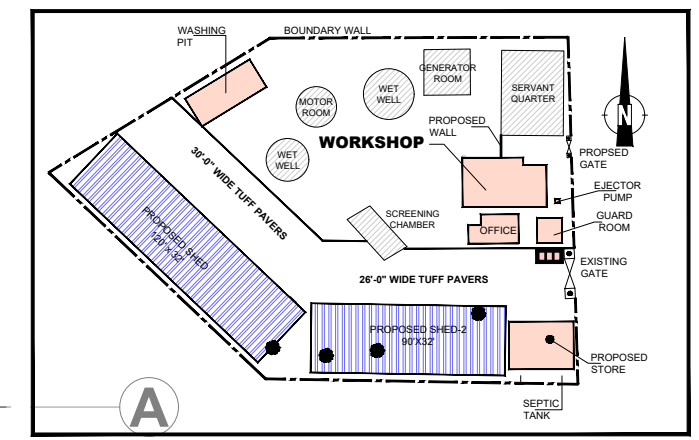
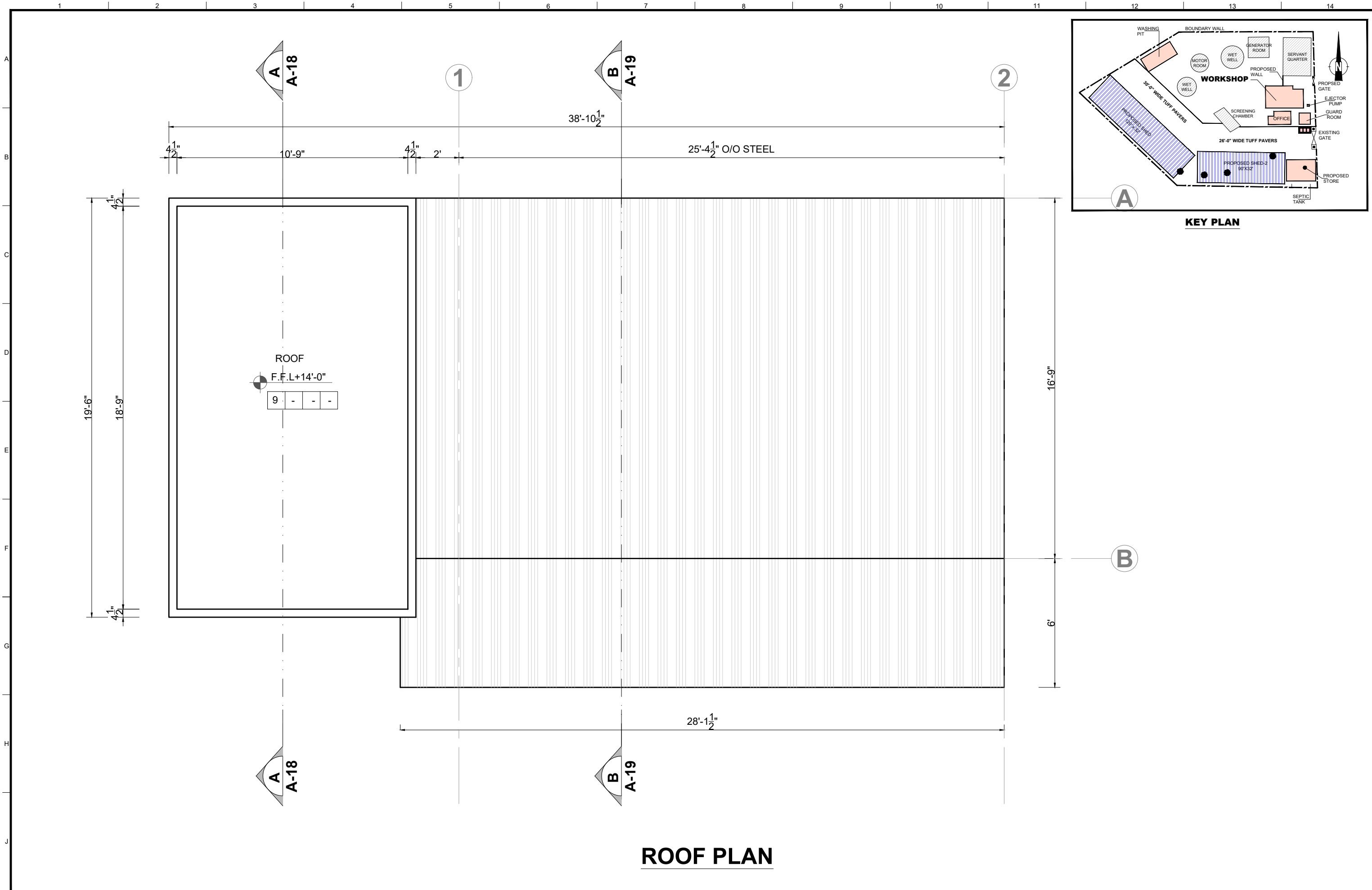
DRAWING NO:  
**A-15**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**KEY PLAN**



**GROUND FLOOR PLAN**

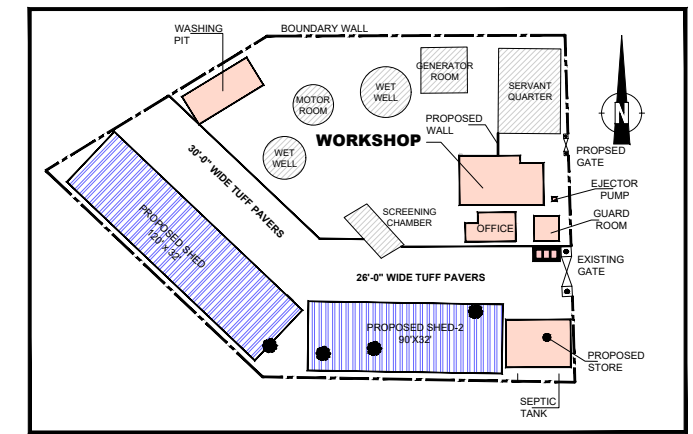
CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 248	DRAWING TITLE: <b>GROUND FLOOR PLAN          WORKSHOP          (KAMALIA)</b>	DRAWN BY: Munir	DRAWING NO: <b>A-16</b>												
				CHECKED BY: Sadat Waleed		SCALE: UNIT=FEET 1/4"=1'-0"	SHEET: 1 OF 1 JOB NO: 488-01										
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REV.	DATE	DESCRIPTION															



**KEY PLAN**

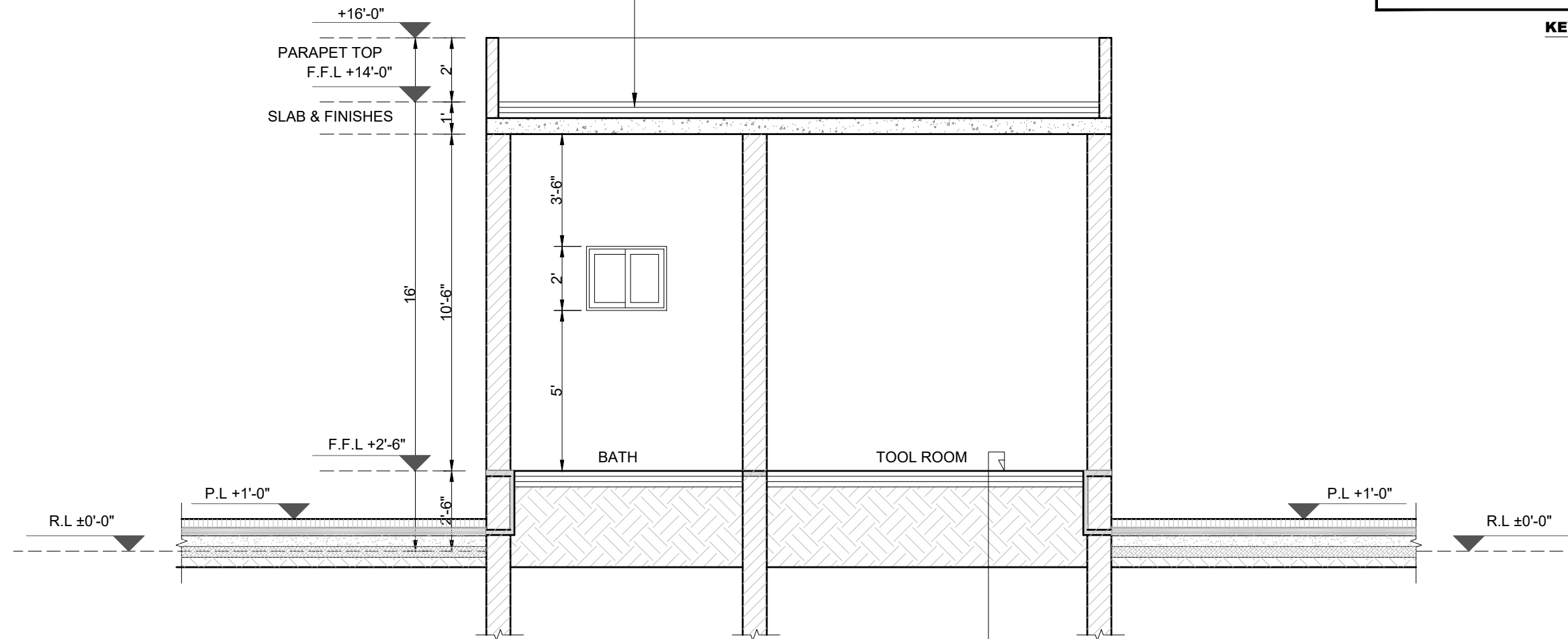
# ROOF PLAN

CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 249	DRAWING TITLE: <b>ROOF PLAN WORKSHOP (KAMALIA)</b>	REV.	DATE	DESCRIPTION	DRAWN BY: Munir	DRAWING NO: <b>A-17</b>
							CHECKED BY: Sadat Waleed	
							DATE: June, 2022	



**KEY PLAN**

9"X4½"X1½" TH. TILES  
 4" MUD WITH MUD PLASTER LAID TO SLOPE  
 1 LAYER OF POLYTHENE SHEET 500 GAUGE OVER  
 HOT BITUMEN COATING @  
 1.72 kg per sqm  
 R.C.C SLAB



**SECTION A-A**

P.C.C TUFF PAVERS 80mm THICK  
 HAVING 7000 PSI GRADING STRENGTH  
 OVER 2" THICK SAND  
 2" TH.P.C.C 1:2:4  
 4" THICK BRICK BALAST  
 3" THICK SAND FILLING  
 WELL COMPECTED EARTH

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

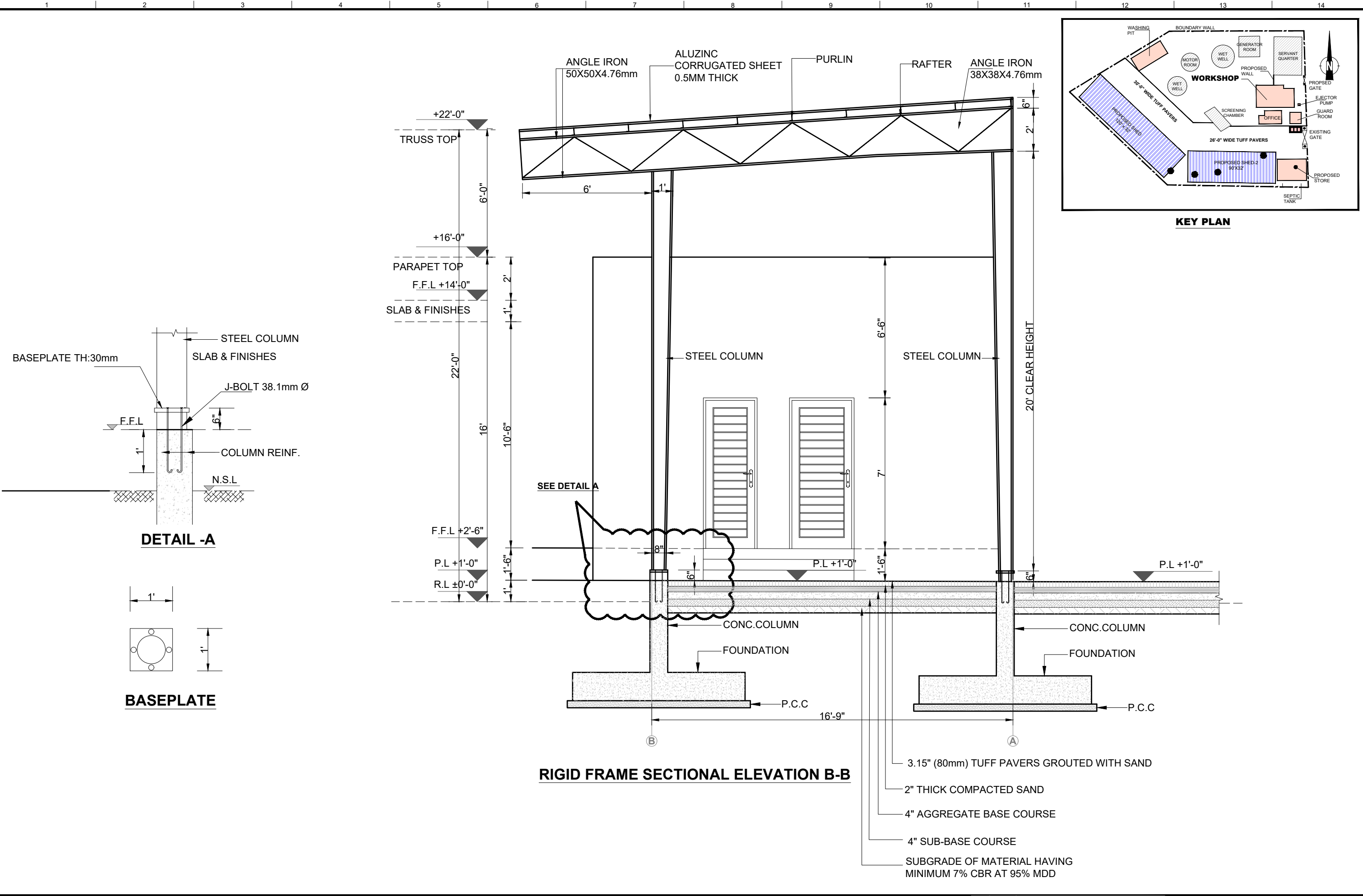
CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk


PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 250

DRAWING TITLE:  
**SECTION A-A  
 WORKSHOP  
 (KAMALIA)**

REV.	DATE	DESCRIPTION

DRAWN BY: Munir	DRAWING NO: <b>A-18</b>
CHECKED BY: Sadat Waleed	
DATE: June, 2022	SCALE: 1/4"=1'-0"
	SHEET: 1 OF 1 JOB NO: 488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 251

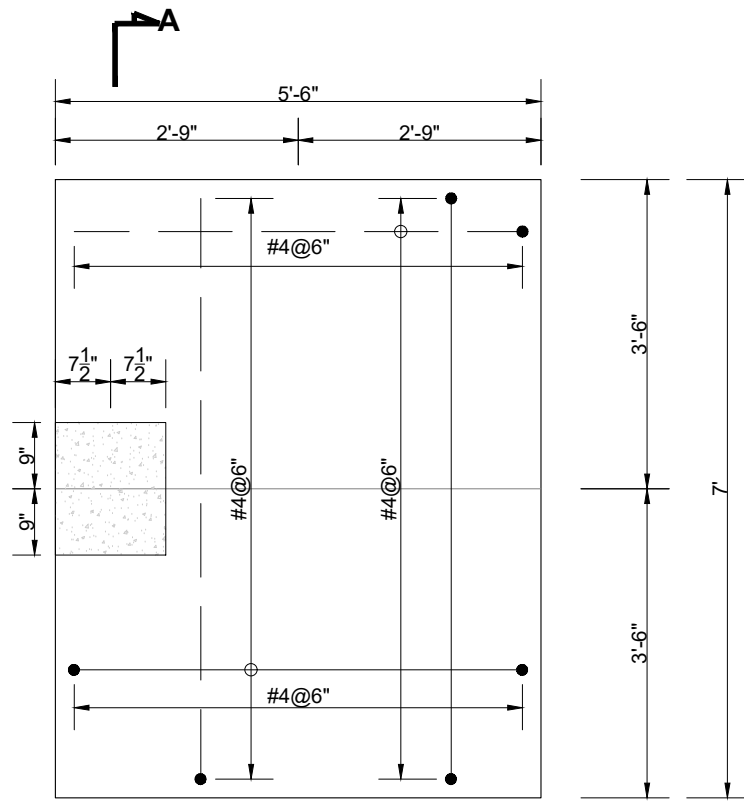
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**SECTION B-B WORKSHOP (KAMALIA)**

REV.	DATE	DESCRIPTION

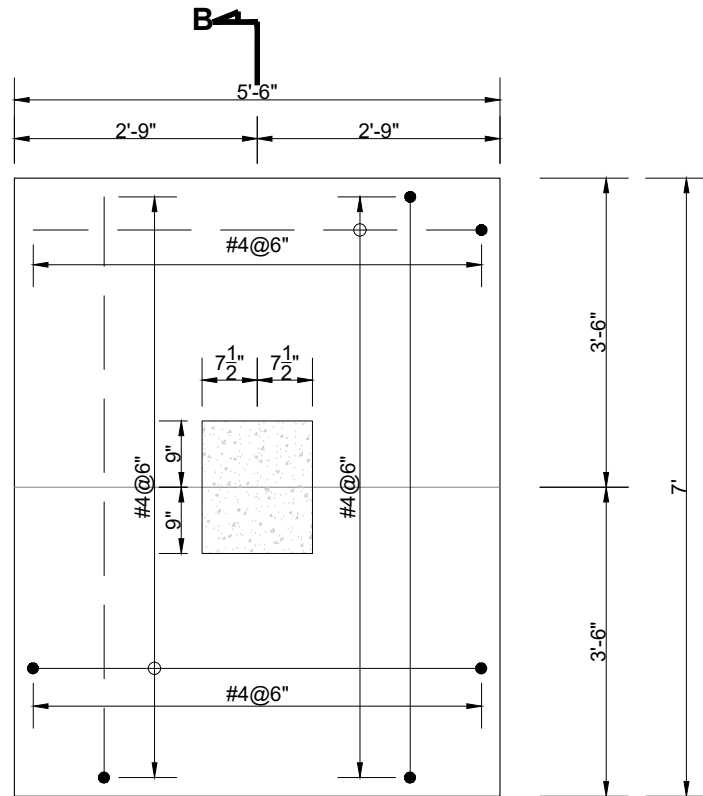
DRAWN BY: Munir  
 CHECKED BY: Sadat Waleed  
 DATE: June, 2022

DRAWING NO: **A-19**

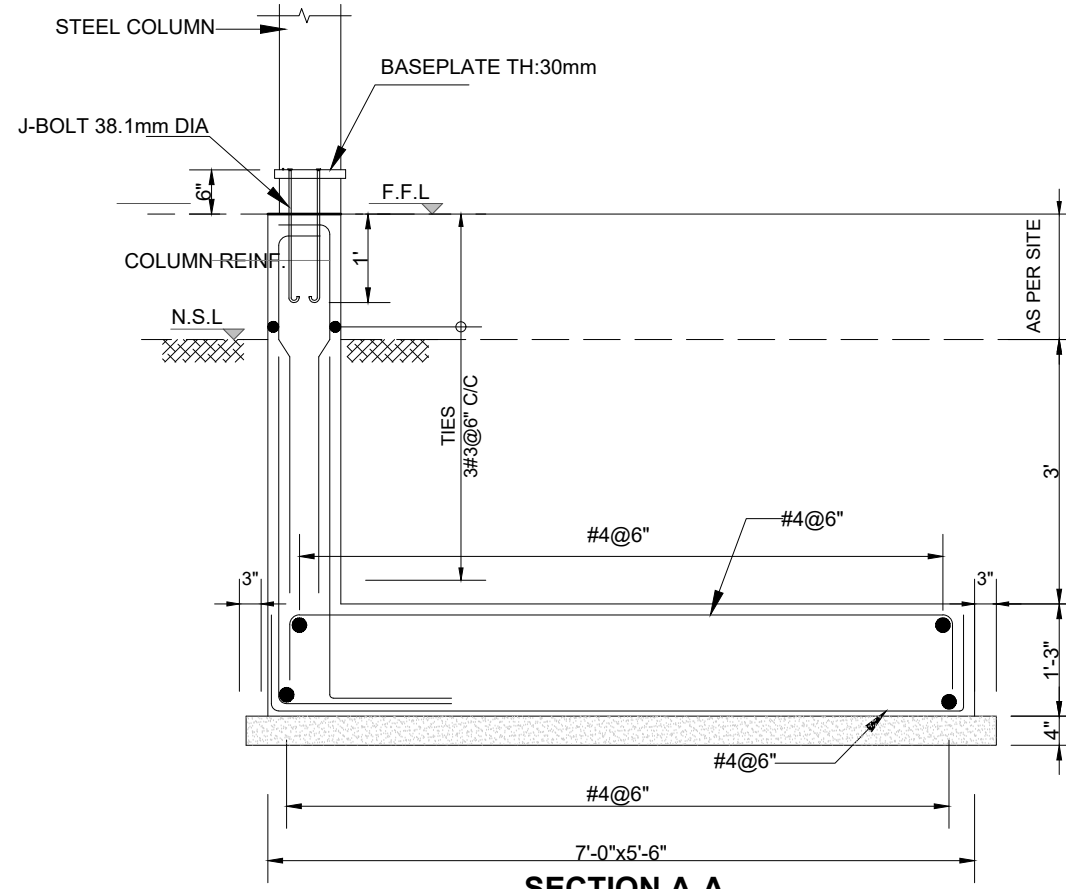
SCALE: 1/4"=1'-0"  
 SHEET: 1 OF 1  
 JOB NO: 488-01



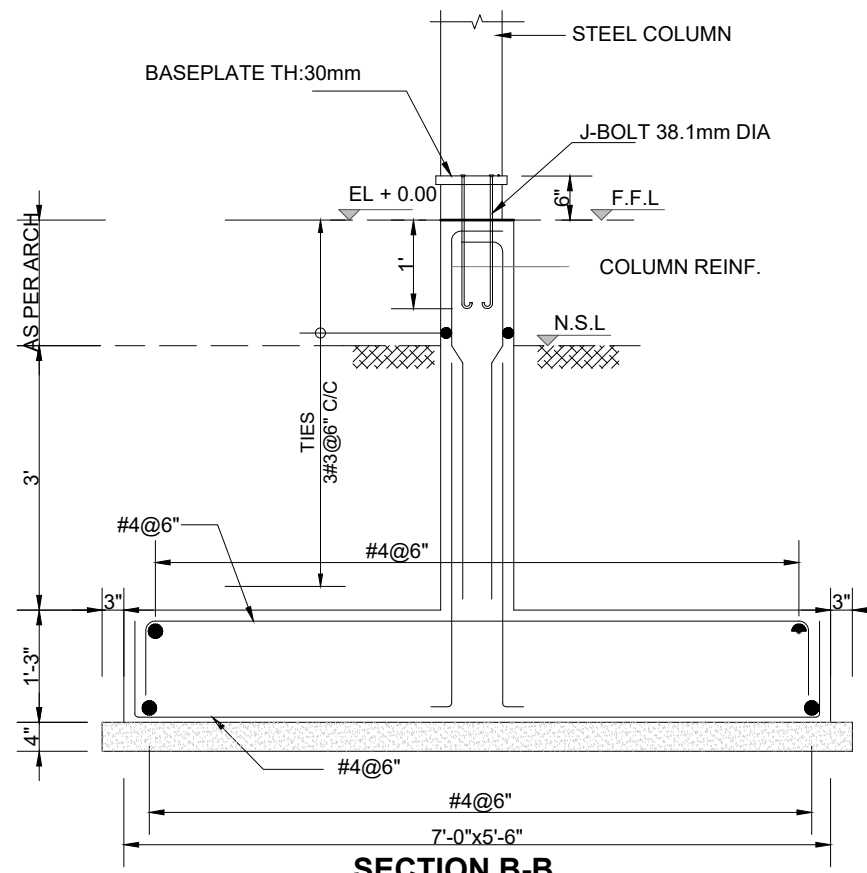
**FOOTING F-1**



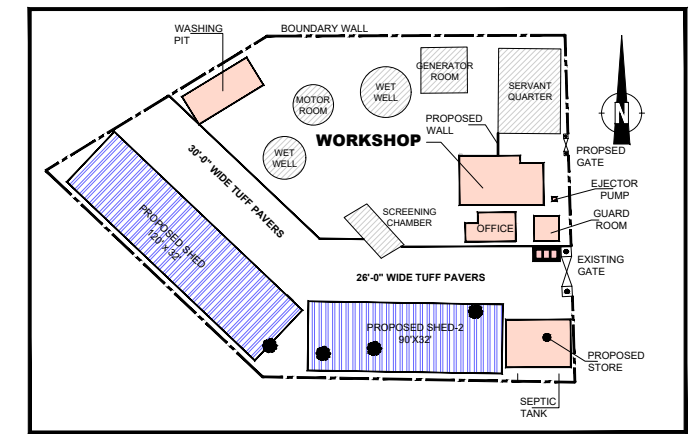
**FOOTING F-2**



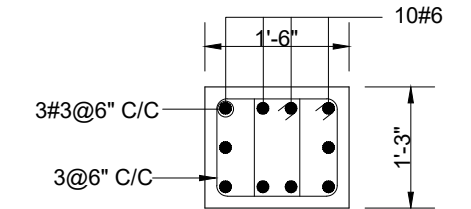
**SECTION A-A**



**SECTION B-B**



**KEY PLAN**



**TYPICAL COLUMN C-1**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

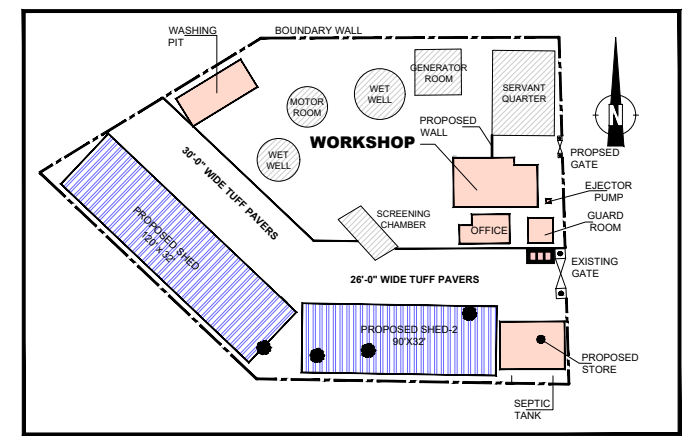
CONSULTANTS:  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 252

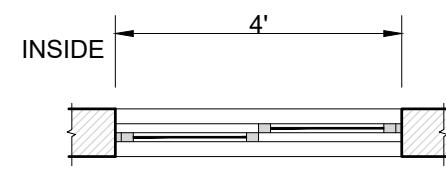
DRAWING TITLE:  
**FOUNDATION DETAIL  
 WORKSHOP  
 (KAMALIA)**

REV.	DATE	DESCRIPTION

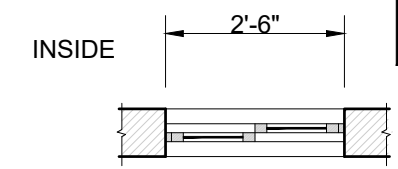
DRAWN BY: Munir	DRAWING NO: <b>A-20</b>
CHECKED BY: Sadat Waleed	SCALE: UNIT=FEET 1/2"=1'-0"
DATE: June, 2022	SHEET: 1 OF 1 JOB NO: 488-01



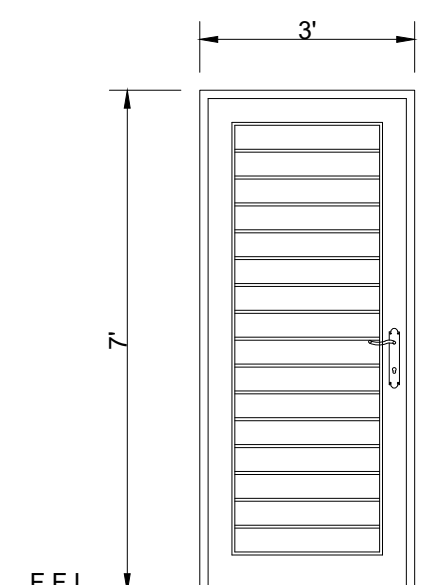
**KEY PLAN**



INSIDE 4'  
OUT SIDE  
**PLAN OF W1**

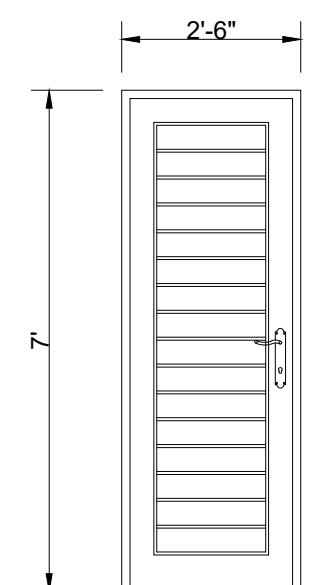


INSIDE 2'-6"  
OUT SIDE  
**PLAN OF V1**



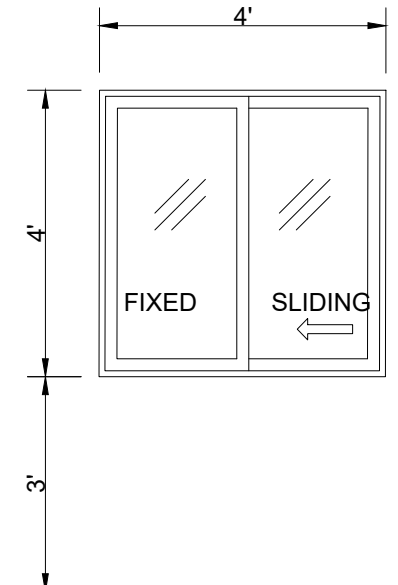
**ELEVATION OF D1**

SIZE=3'-0"x7'-0"  
QUANTITY= 01 NOS. HOLLOW  
FLUSH DOOR WITH COMMERCIAL  
PLY(3 PLY)



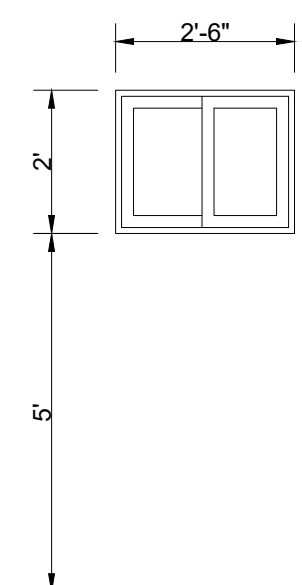
**ELEVATION OF D2**

SIZE=2'-6"x7'-0"  
QUANTITY= 01 NOS. HOLLOW  
FLUSH DOOR WITH COMMERCIAL  
PLY(3 PLY)





**ELEVATION OF W1**

SIZE=4'-0"x4'-0"  
QUANTITY= 01 NOS.  
STEEL SLIDING WINDOW,  
FIXED WITH 5MM THICK GLASS  
INCLUDING WIRE GAUZE



**ELEVATION OF V1**

SIZE=2'-6"x2'-0"  
QUANTITY= 01 NOS.  
STEEL SLIDING WINDOW,  
FIXED WITH 5MM THICK GLASS  
INCLUDING WIRE GAUZE

CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 253	DRAWING TITLE: <b>DOOR WINDOW SCHEDULE          WORKSHOP          (KAMALIA)</b>	REV.	DATE	DESCRIPTION	DRAWN BY: Munir	DRAWING NO: <b>A-21</b>
							CHECKED BY: Sadat Waleed	
							DATE: June,2022	

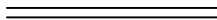
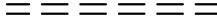

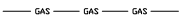

# PLUMBING DRAWING



## LEGEND & NOTES:

### WATER SUPPLY

#### LEGEND


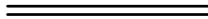




COLD WATER PIPE (C.W)	
HOT WATER PIPE (H.W)	
HOT WATER RETURN PIPE (H.W.R)	
GAS SUPPLY PIPE	
ISOLATION VALVE	

#### NOTES

- ALL WATER SUPPLY PIPE DIAMETERS MENTIONED ARE EXTERNAL DIAMETERS UNLESS OTHERWISE MENTIONED
- PROVIDE ISOLATION (GATE) VALVE ON ALL COLD & HOT WATER SUPPLY LINES AT THE INLET TO EACH TOILET. VALVES SHALL BE INSTALLED AT ACCESSIBLE LOCATIONS
- ALL WATER SUPPLY PIPES ARE POLYPROPYLENE RANDOM PIPE (PPR-PN 20) UNLESS OTHERWISE MENTIONED
- ALL WATER SUPPLY PIPES FITTINGS SUCH AS BENDS, TEES, SOCKETS, ARE PPR (PN 25) UNLESS OTHERWISE MENTIONED
- PROVIDE THERMAL INSULATION ON ALL HOT WATER & HOT WATER RETURN PIPES
- ALL WATER SUPPLY PIPES ARE SUSPENDED ALONG CEILING OR CONCEALED IN WALLS.
- ALL WATER SUPPLY PIPES WITHIN THE BUILDING SHALL RUN AT HIGH LEVEL UNLESS OTHERWISE SPECIFIED
- ALL WCs, WASH BASINS AND SINKS TO BE PROVIDED WITH T STOP COCKS
- CONTRACTOR SHALL VERIFY THE PUMPING FOR ALL PUMPS AS PER THE SITE CONDITION AND SHALL INFORM TO THE ENGINEER FOR ANY VARIATION
- ALL PUMP SHALL BE PROVIDED WITH FLEXIBLE CONNECTOR AT SUCTION AND DISCHARGE
- PROVIDE ISOLATION / STOP COCKS AT ALL GAS CONNECTIONS BURNERS
- PROVIDE PRESSURE REDUCING VALVES (PRV) ON HOT & COLD WATER PIPES ABOVE FALSE CEILING IN EACH BATHROOM, KITCHEN, etc WITH INLET PRESSURE AT 120 PSI AND OUT PRESSURE UPTO 30 PSI.

### SEWERAGE SYSTEM

#### LEGEND

WASTE WATER PIPE	
SOIL PIPE	
SEWER PIPE	
4"Ø FLOOR DRAIN WITH P- TRAP	
GULLY TRAP	
MANHOLE (3'x3')	

#### NOTES

- ALL SOIL, WASTE, VENT & DRAINAGE PIPES DIAMETERS MENTIONED ARE NOMINAL DIAMETERS UNLESS OTHERWISE MENTIONED
- ALL SOIL, WASTE AND VENT PIPES ARE uPVC (UNPLASTICISED POLYVINYL CHLORIDE) CLASS B UNLESS OTHERWISE MENTIONED
- ALL MANHOLE COVERS SHALL BE OF HEAVY DUTY CAST IRON
- INVERT LEVELS WILL BE ADJUSTED AS PER SITE CONDITION
- ALL DIAMETERS MENTIONED ARE NOMINAL DIAMETERS
- ALL VERTICAL WC'S & URINALS WILL BE PROVIDED WITH MUSLIM SHOWER
- ALL RAIN WATER DISPOSAL PIPES SHALL BE OF uPVC CLASS-B & HORIZONTAL (ON LOWER FLOOR) SHALL BE uPVC CLASS D.
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS
- ALL SEWAGE PIPING FROM FIXTURES TO MANHOLES AND GULLY TRAPS SHALL BE OF uPVC
- ALL CLEAN OUTS & FLOOR DRIANS SHALL BE COORDINATE WITH INTERIOR
- MINIMUM SLOPE OF SOIL AND WASTE PIPES ARE AS UNDER

PIPE DIA.	SLOPE
3"	1:50
4"	1:100
6"	1:150
9"	1:200

CLIENT:



CONSULTANTS:



PROJECT:

**PUNJAB CITIES PROGRAM (PCP)**  
DETAILED DESIGN OF INFRASTRUCTURE  
SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
16 CITIES OF PUNJAB. 255

DRAWING TITLE:

**LEGEND & NOTES  
KAMALIA**

DRAWN BY:

Talha

CHECKED BY:

Khadija

DATE:

Oct,2022

DRAWING NO:

**G-00**

SCALE:

1/4"=1'-0"

SHEET:

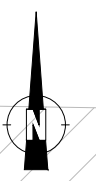
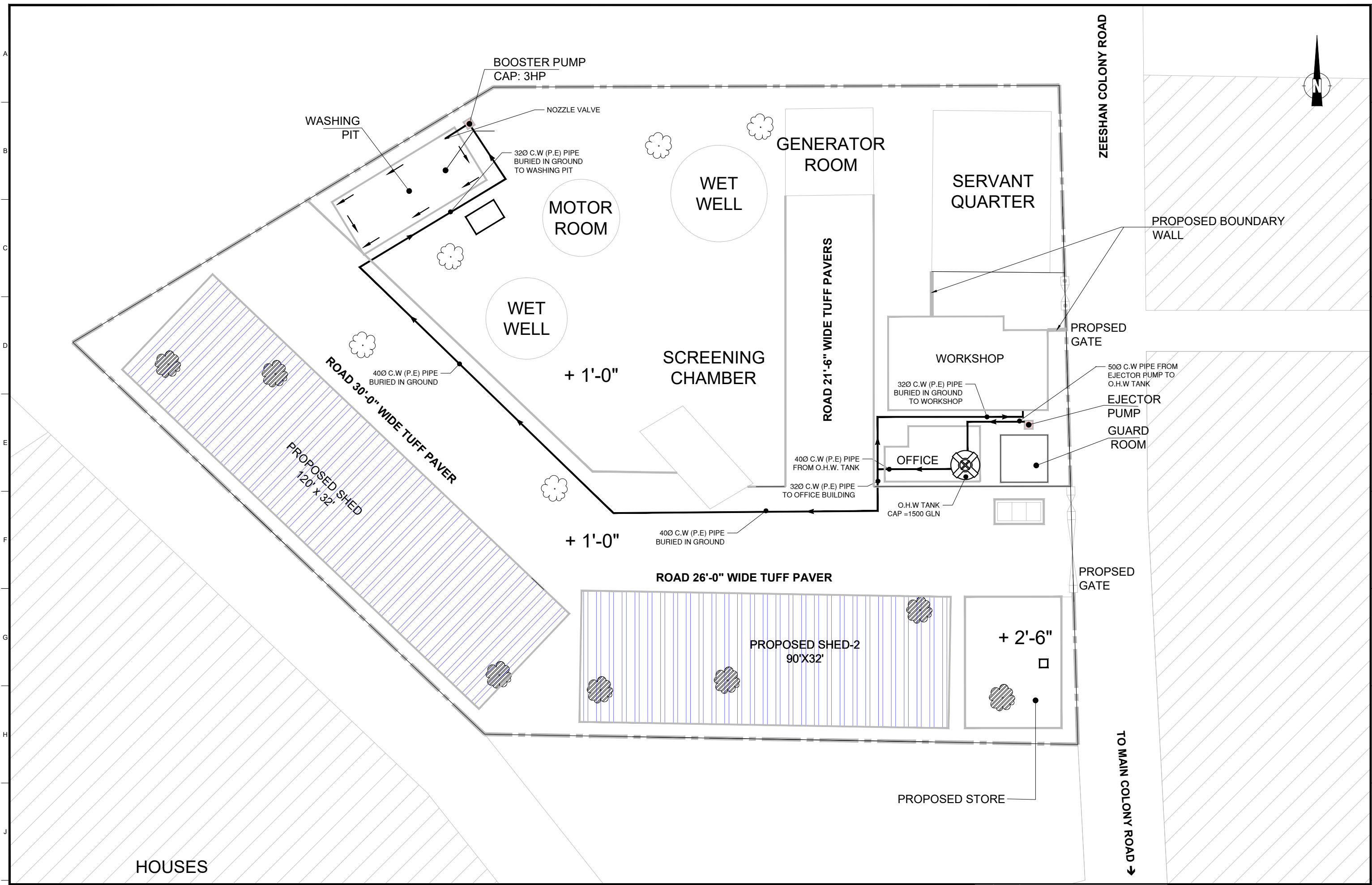
1 OF 1



JOB NO:

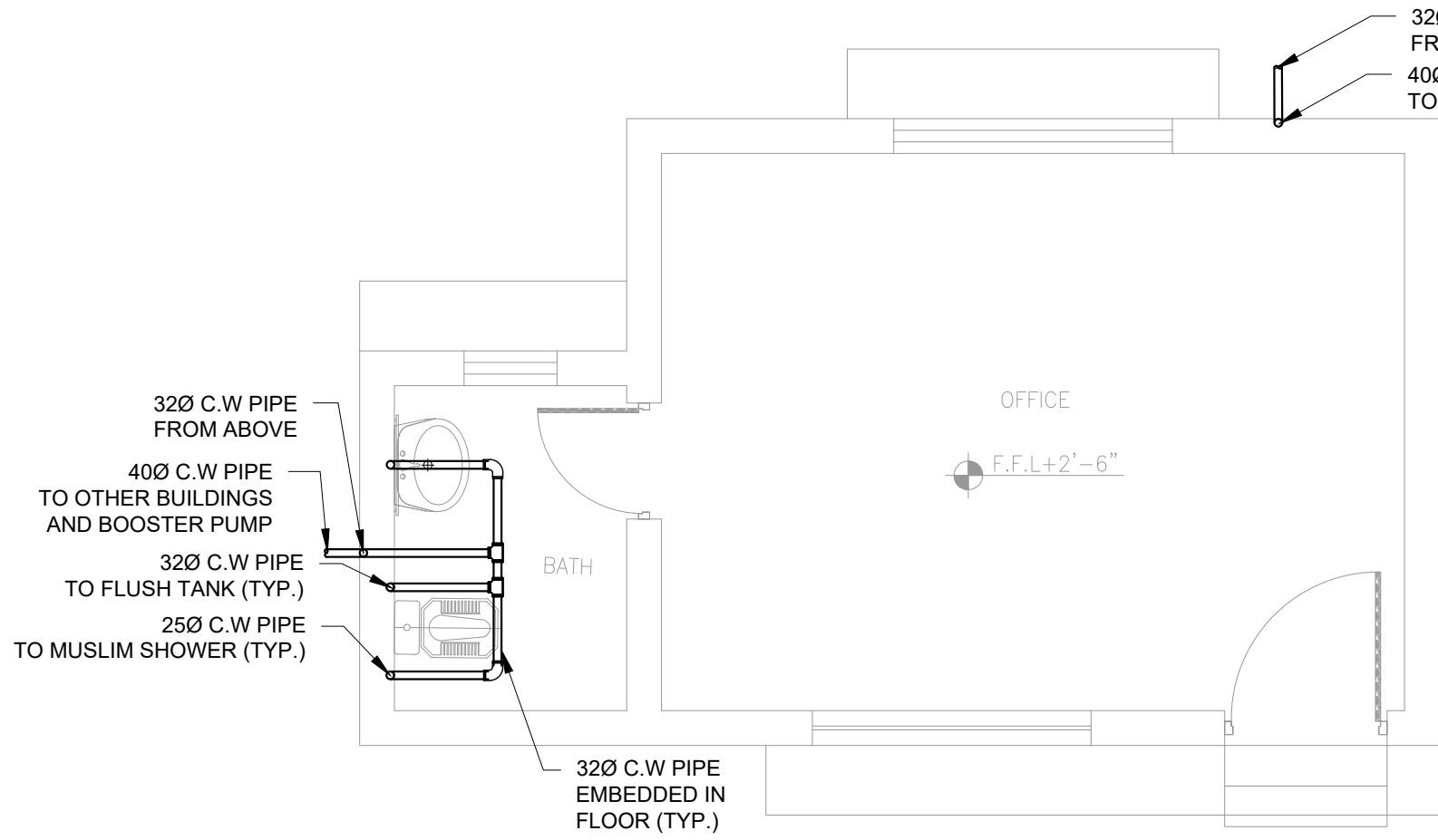
488-01

REV.	DATE	DESCRIPTION
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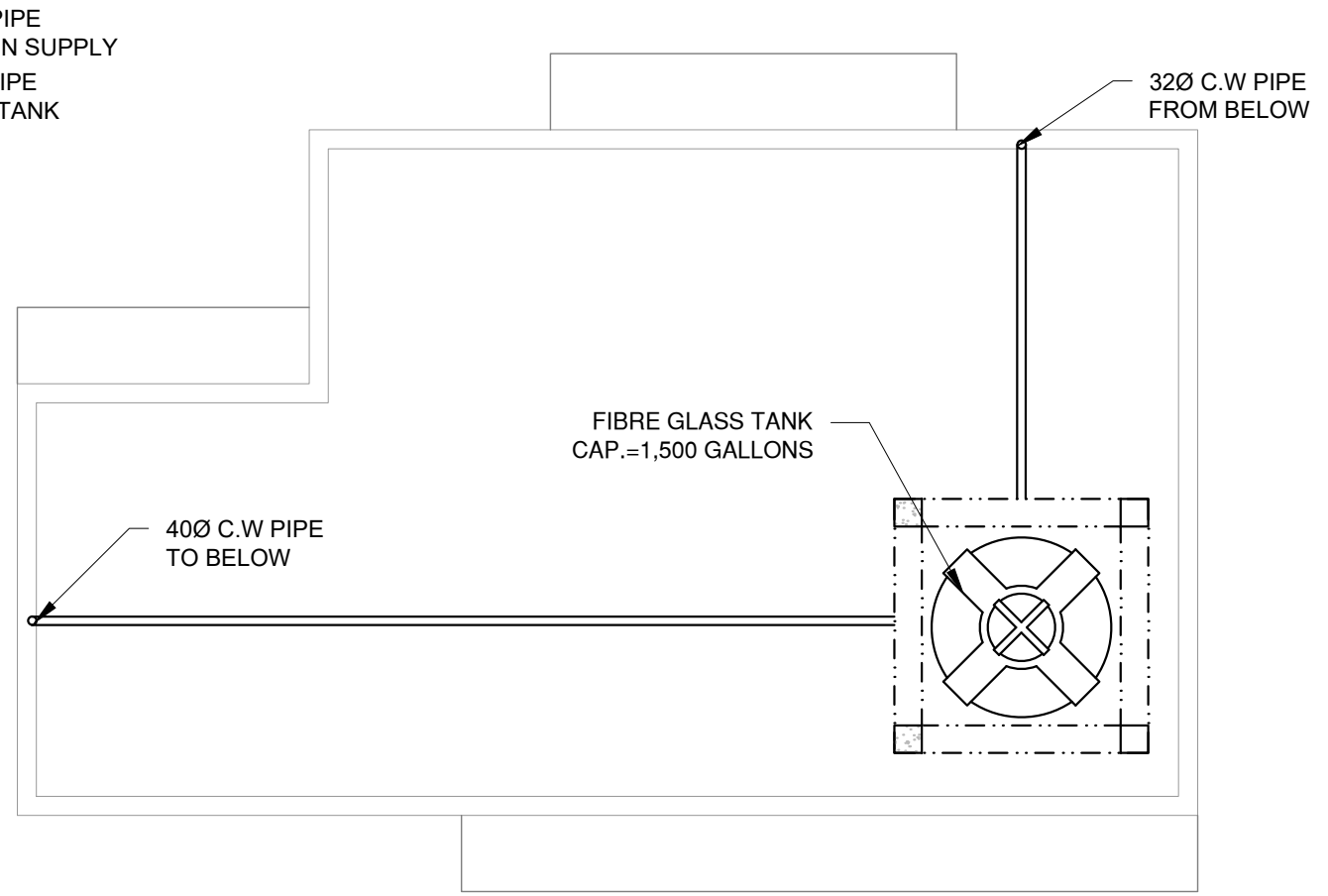
# **WATER SUPPLY DRAWING**



<b>CLIENT:</b>  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>		<b>CONSULTANTS:</b>  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk		<b>PROJECT:</b> <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 257		<b>DRAWING TITLE:</b> <b>PROPOSED WATER SUPPLY LAYOUT</b> <b>SWM PARKING SHED AREA</b> <b>(KAMALIA)</b>		<b>DRAWN BY:</b> Talha <b>CHECKED BY:</b> AHMED <b>DATE:</b> OCT,2022		<b>DRAWING NO:</b> <b>EW-01</b> <b>SCALE:</b> UNIT=FEET 1"=500' <b>SHEET:</b> 1 OF 1 <b>JOB NO:</b> 488-01			
1	2	3	4	5	6	7	8	9	10	11	12	13	14



GROUND FLOOR PLAN



ROOF PLAN

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

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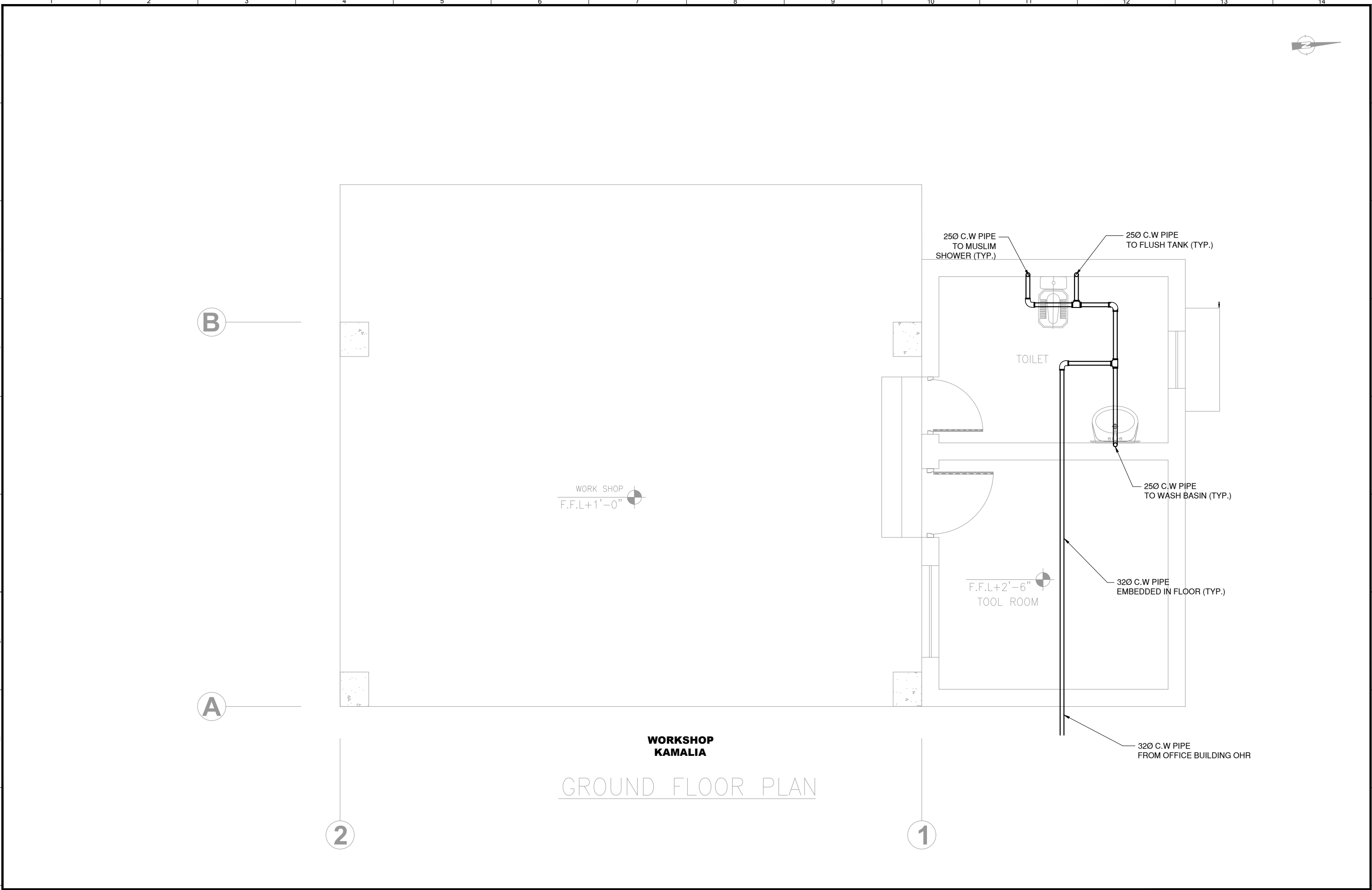
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 258

DRAWING TITLE:  
**PROPOSED WATER SUPPLY LAYOUT PLAN OFFICE BLOCK (KAMALIA)**



REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
TALHA  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
June,2022

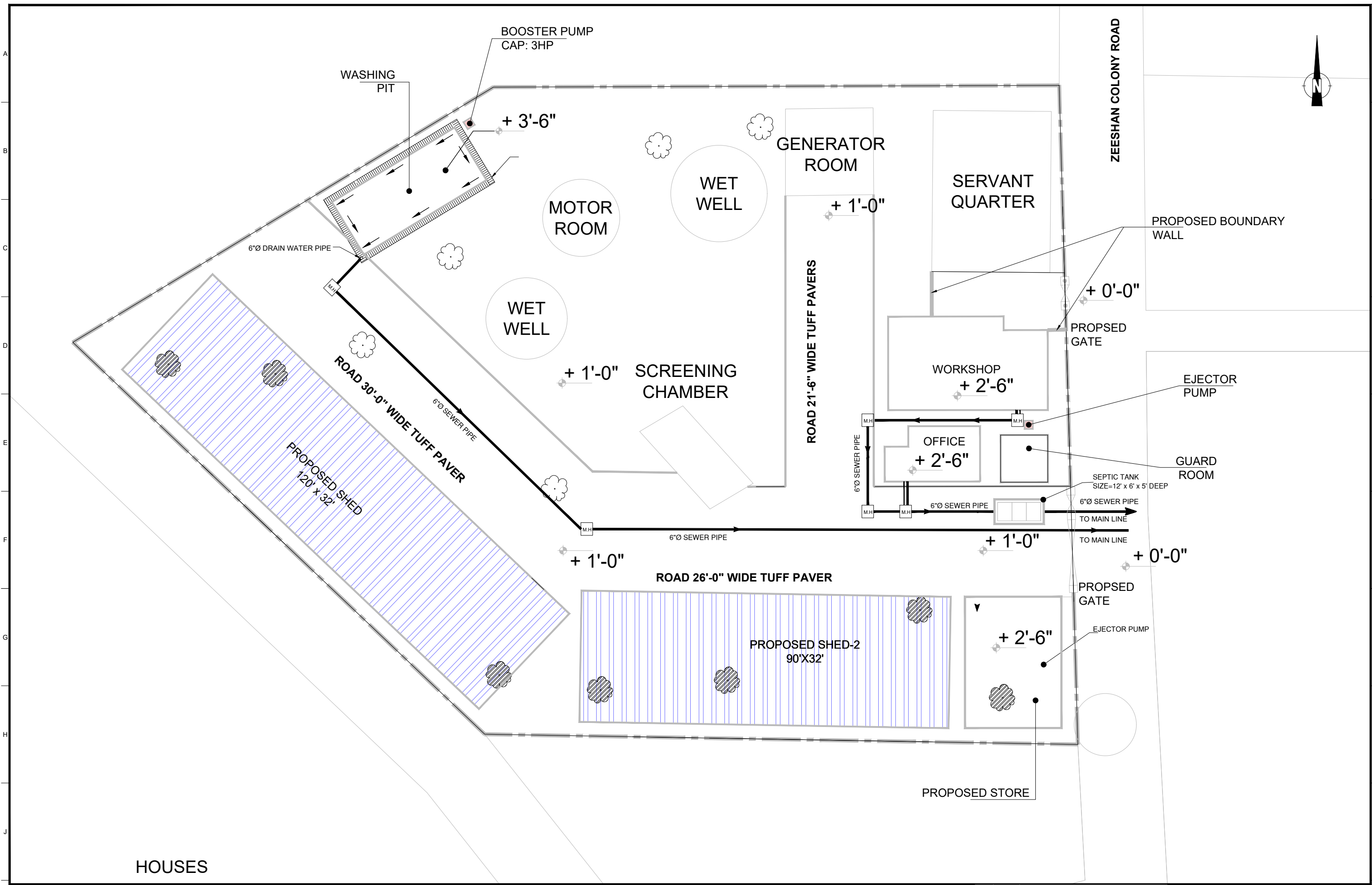
DRAWING NO:  
**W-01**  
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UNIT=FEET  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01





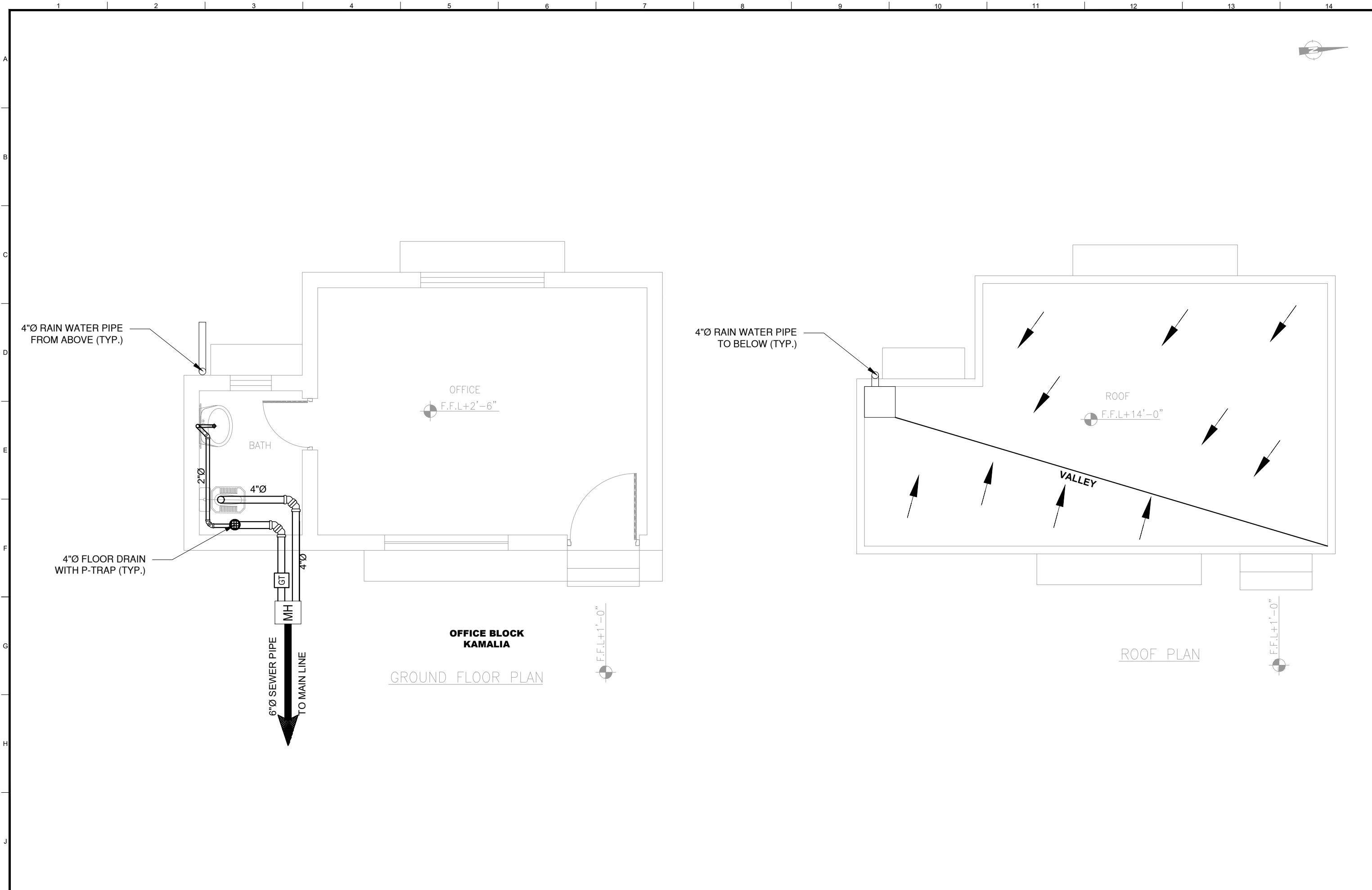
**WORKSHOP  
KAMALIA**  
  
GROUND FLOOR PLAN


CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 259</b>	DRAWING TITLE: <b>GROUND FLOOR WATER SUPPLY LAYOUT WORKSHOP (KAMALIA)</b>	DRAWN BY: Mahad	DRAWING NO: <b>W-02</b>						
				CHECKED BY: Khadija		SCALE: 1/4"=1'-0"	SHEET: 1 OF 1				
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REV.	DATE	DESCRIPTION									
-	-	-									

# **SEWAGE DRAWING**



<b>CLIENT:</b>  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>		<b>CONSULTANTS:</b>  <b>JERS CONSULTANCY (PVT) LTD</b> 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk		<b>PROJECT:</b> <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 261		<b>DRAWING TITLE:</b> <b>PROPOSED SEWER SYSTEM          SWM PARKING SHED AREA          (KAMALIA)</b>		<b>DRAWN BY:</b> Talha <b>CHECKED BY:</b> AHMED <b>DATE:</b> OCT,2022		<b>DRAWING NO:</b> <b>ES-01</b> <b>SCALE:</b> UNIT=FEET 1"=500' <b>SHEET:</b> 1 OF 1 <b>JOB NO:</b> 488-01			
1	2	3	4	5	6	7	8	9	10	11	12	13	14



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PROJECT:  
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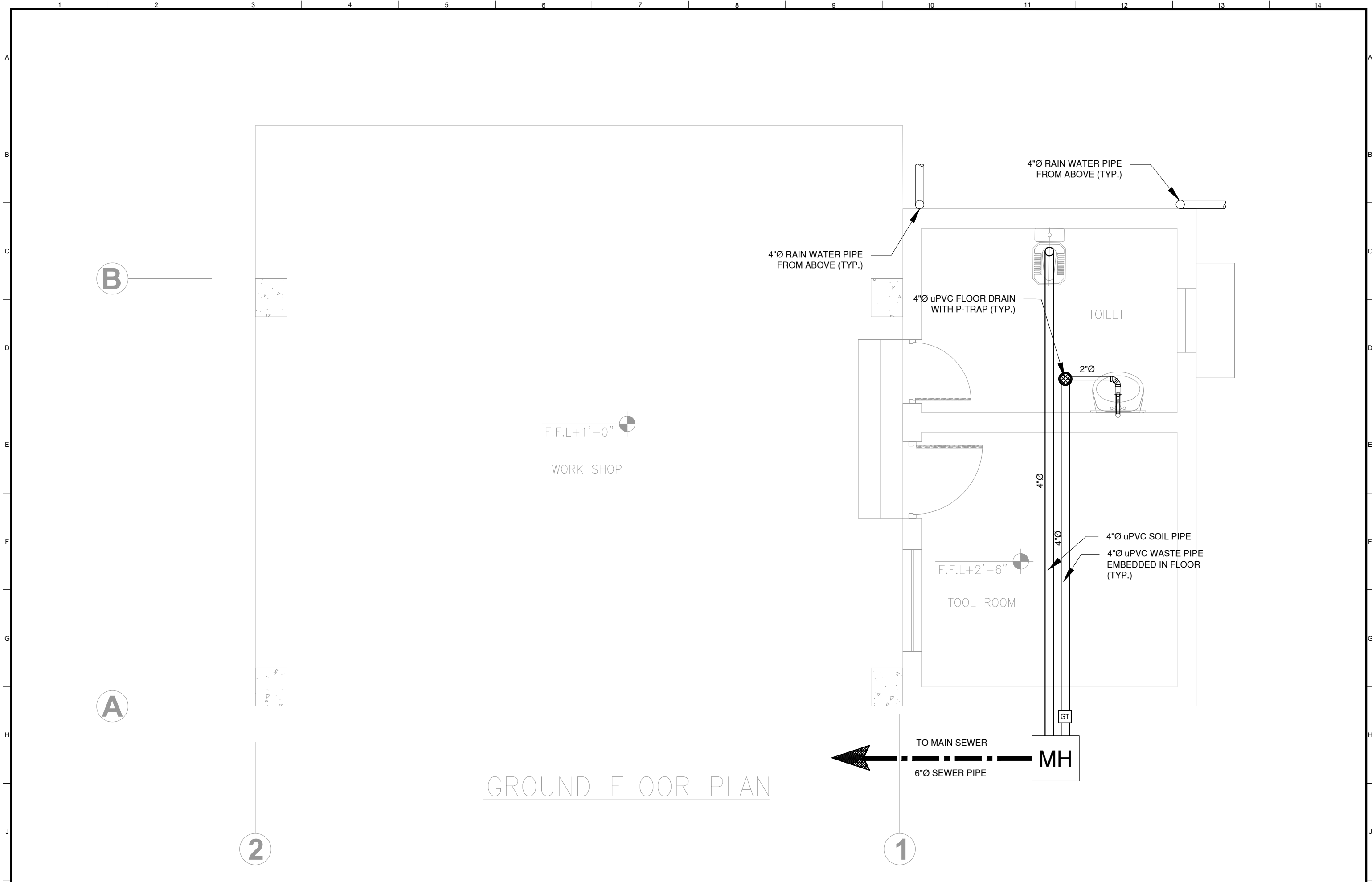
DRAWING TITLE:  
**SEWER SYSTEM GROUND & ROOF LAYOUT PLAN**  
**OFFICE BLOCK KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
TALHA  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
OCT,2022

DRAWING NO:  
**S-01**  
 SCALE:  
UNIT=FEET  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01





GROUND FLOOR PLAN

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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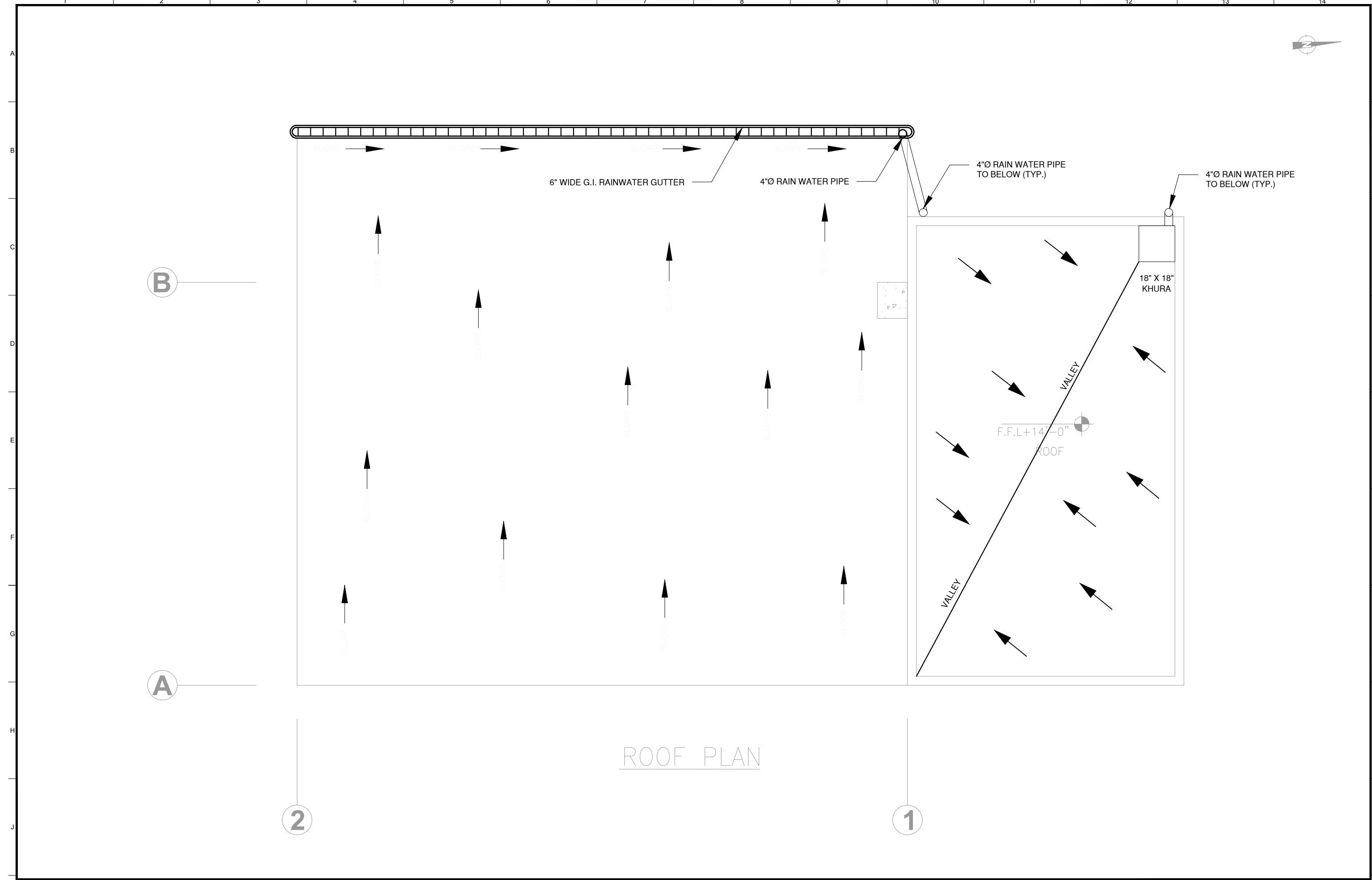
PROJECT:  
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 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 263

DRAWING TITLE:  
**GROUND FLOOR SEWER SYSTEM LAYOUT  
 WORKSHOP  
 KAMALIA**



REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

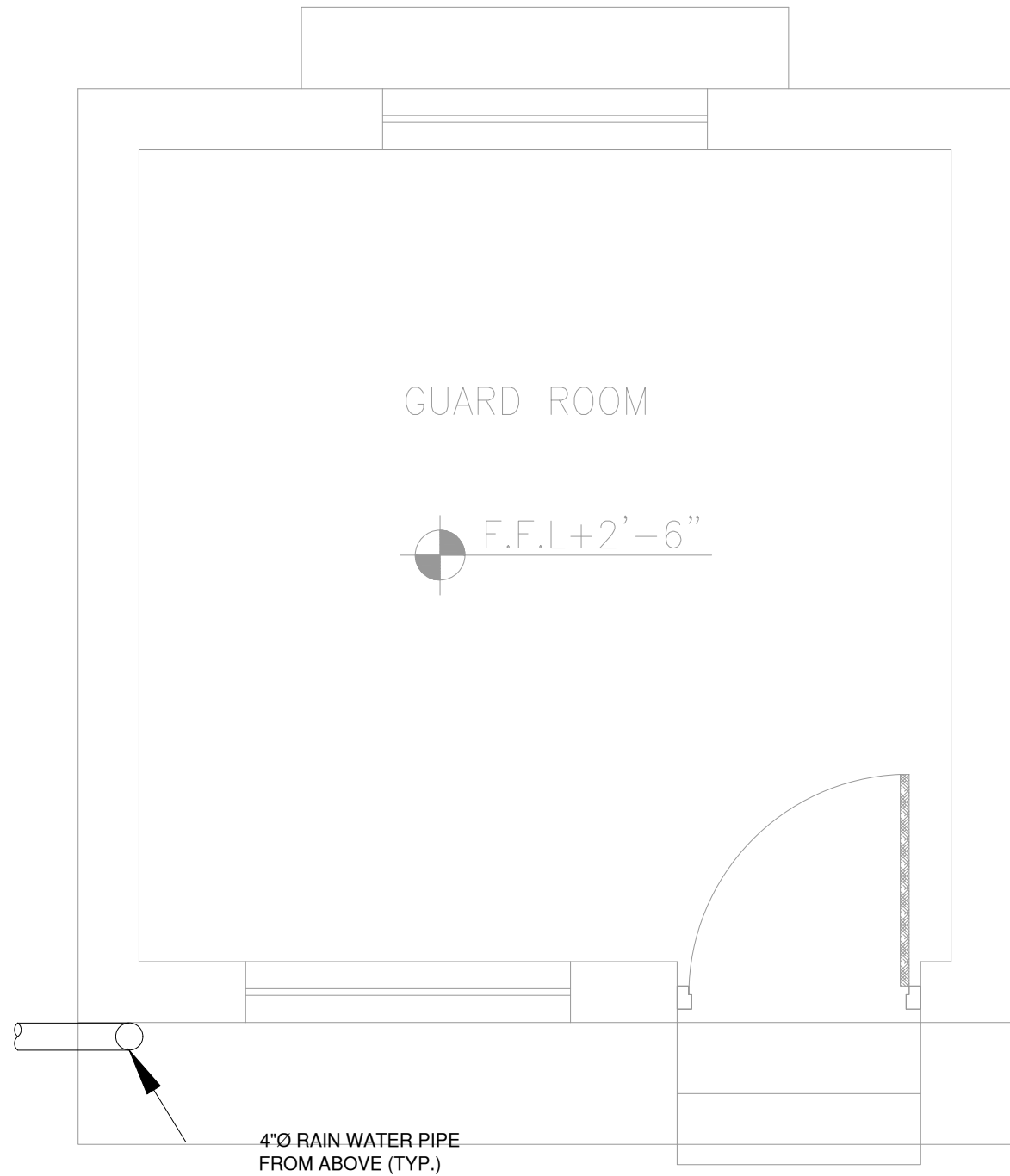
DRAWN BY:  
TALHA  
 CHECKED BY:  
Khadija  
 DATE:  
OCT,2022

DRAWING NO:  
**S-02**  
 SCALE:  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



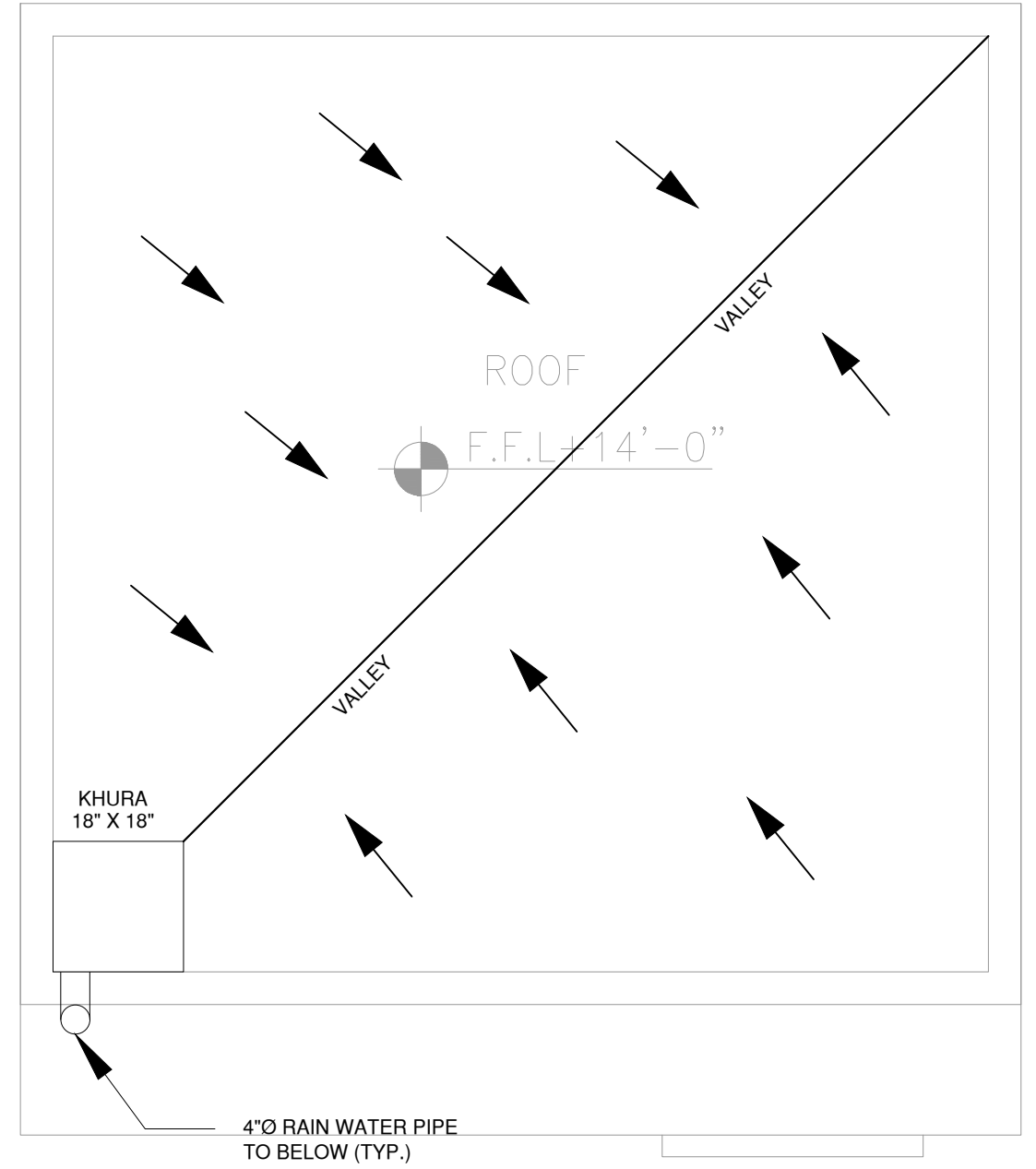
ROOF PLAN

CLIENT:  <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS:  <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 264	DRAWING TITLE: <b>ROOF PLAN SEWER SYSTEM LAYOUT WORKSHOP KAMALIA</b>	REV.    DATE    DESCRIPTION	DRAWN BY: Mahad	DRAWING NO: <b>S-03</b>
				-    -    -	CHECKED BY: Khadija	
				DATE:    OCT2022		



GROUND FLOOR PLAN

F.F.L+1'-0"



ROOF PLAN

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

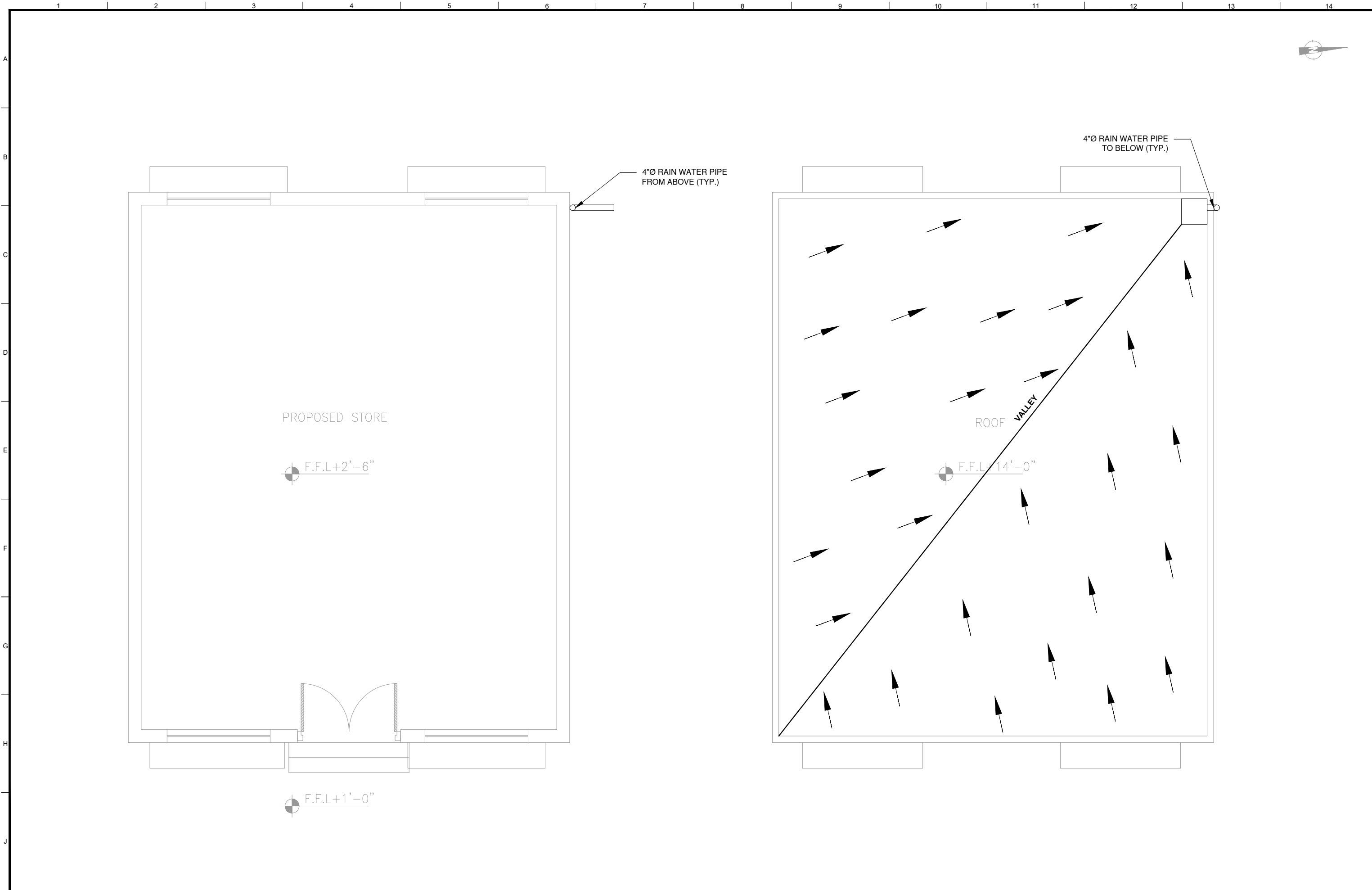
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 265


DRAWING TITLE:  
**GROUND FLOOR & ROOF PLAN  
 GUARD ROOM DRAINAGE  
 LAYOUT  
 KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
TALHA  
 CHECKED BY:  
Khadija  
 DATE:  
OCT,2022

DRAWING NO:  
**S-04**  
 SCALE:  
1/4"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

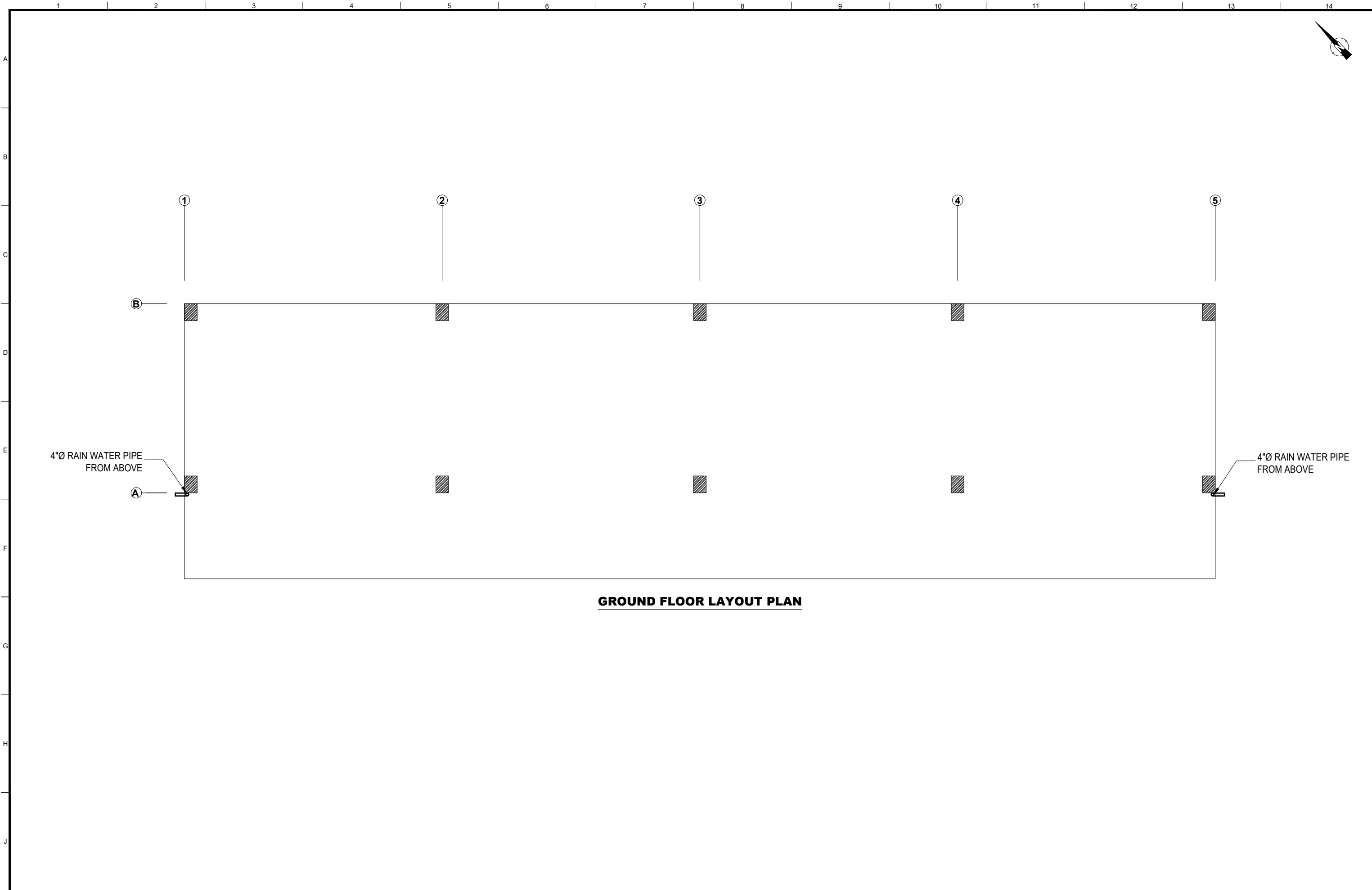
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 266

DRAWING TITLE:  
**SEWER SYSTEM  
 GROUND FLOOR & ROOF PLAN  
 PROPOSED STORE  
 KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-

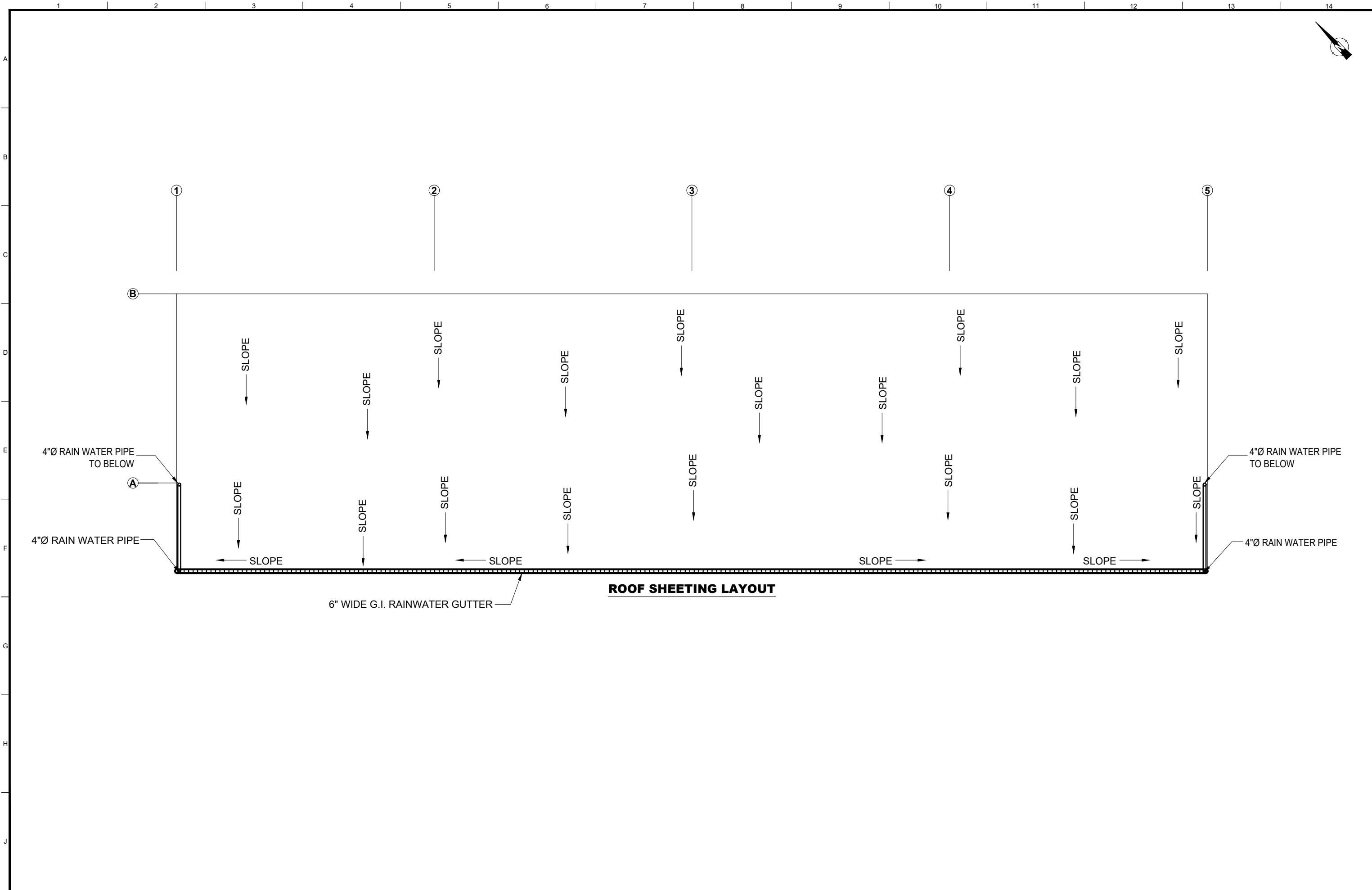
DRAWN BY:  
TALHA  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
OCT, 2022

DRAWING NO:  
**S-05**  
 SCALE:  
1/8"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**GROUND FLOOR LAYOUT PLAN**

<p>CLIENT:</p> <p><b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b></p>	<p>CONSULTANTS:</p> <p><b>JERS CONSULTANCY (PVT) LTD</b>  <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small></p>	<p>PROJECT:</p> <p align="center"><b>PUNJAB CITIES PROGRAM (PCP)</b>          DETAILED DESIGN OF INFRASTRUCTURE          SUB-PROJECTS AND RESIDENTS SUPERVISION IN          16 CITIES OF PUNJAB. 267</p>	<p>DRAWING TITLE:</p> <p align="center"><b>GROUND FLOOR PLAN          PARKING SHED -1          (KAMALIA CITY)</b></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	REV.	DATE	DESCRIPTION	-	-	-	<p>DRAWN BY:</p> <p align="center">Munir</p> <p>CHECKED BY:</p> <p align="center">Sadat Waleed</p> <p>DATE:</p> <p align="center">OCT,2022</p>	<p>DRAWING NO:</p> <p align="center"><b>D-01</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>SCALE:</td> <td>SHEET:</td> </tr> <tr> <td>UNIT=FEET 1"=120"</td> <td>1 OF 1 JOB NO: 488-01</td> </tr> </table>	SCALE:	SHEET:	UNIT=FEET 1"=120"	1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION														
-	-	-														
SCALE:	SHEET:															
UNIT=FEET 1"=120"	1 OF 1 JOB NO: 488-01															



**ROOF SHEETING LAYOUT**

CLIENT:

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:

**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

PROJECT:

**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 268

DRAWING TITLE:

**ROOF LAYOUT PLAN  
 PARKING SHED -1  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

DRAWN BY:  
Munir

CHECKED BY:  
Sadat Waleed

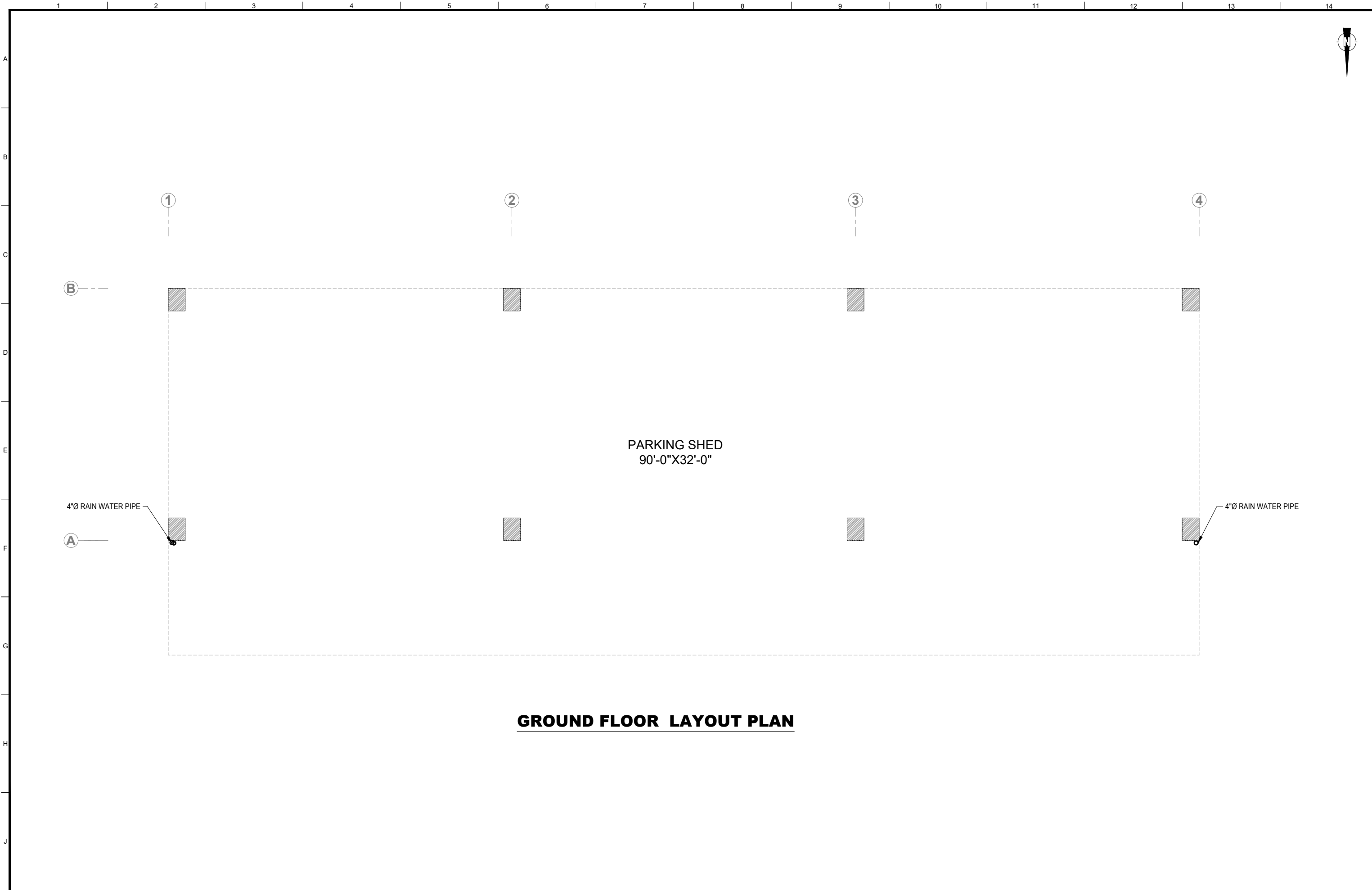
DATE:  
OCT,2022

DRAWING NO:  
**D-02**

SCALE:  
1"=120'

SHEET:  
1 OF 1

JOB NO:  
488-01



PARKING SHED  
90'-0"X32'-0"

4"Ø RAIN WATER PIPE

4"Ø RAIN WATER PIPE

**GROUND FLOOR LAYOUT PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

**JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
 Tel: +92 42 35113123, +92 42 35113124  
 Fax: +92 42 35113125  
 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

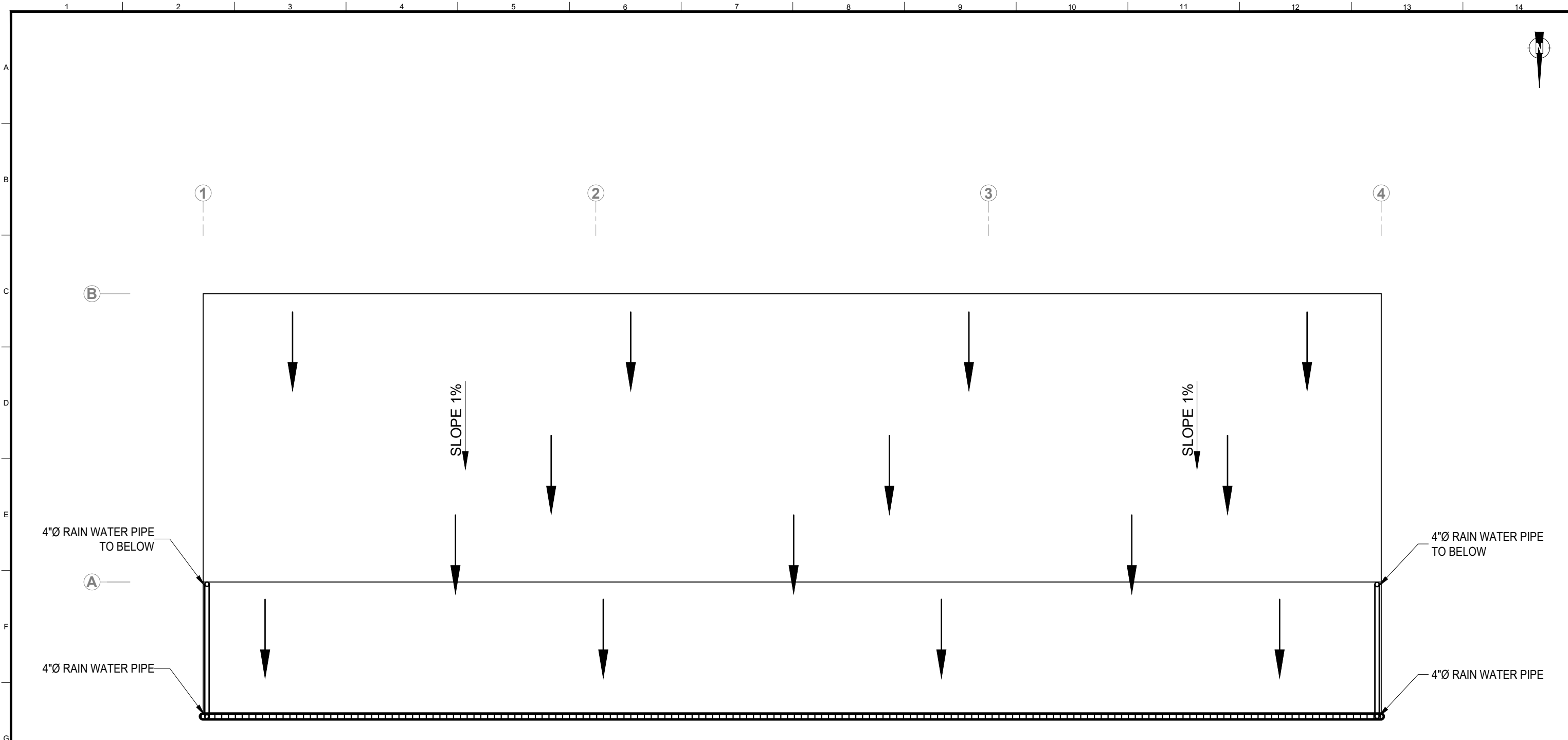
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 269

DRAWING TITLE:  
**GROUND FLOOR PLAN  
 PARKING SHED-2  
 (KAMALIA CITY)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
Munir  
 CHECKED BY:  
Sadat Waleed  
 DATE:  
OCT,2022

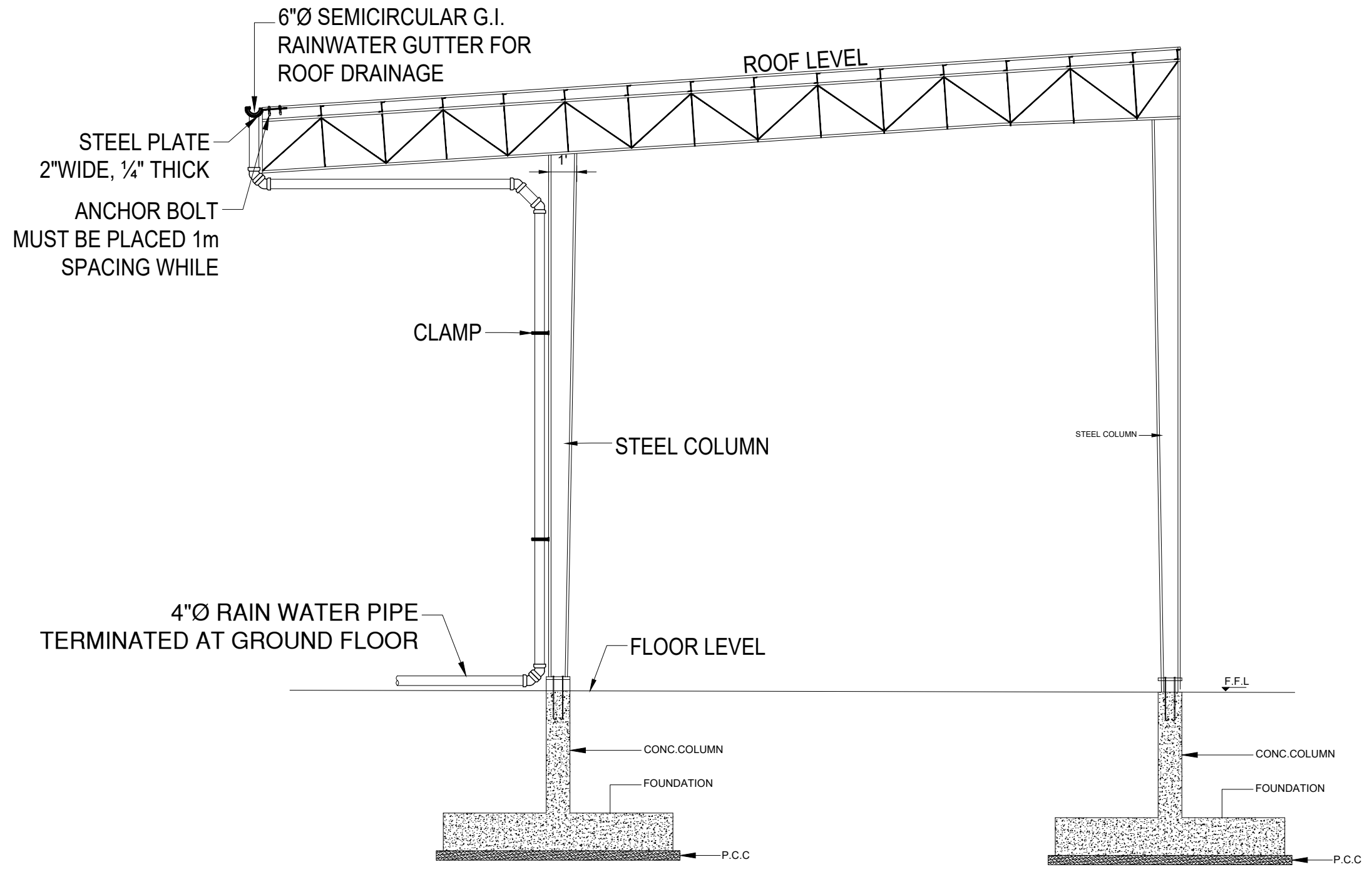
DRAWING NO:  
**D-03**  
 SCALE:  
1"=120'  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**ROOF SHEETING LAYOUT**

CLIENT: <b>PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)</b>	CONSULTANTS: <b>JERS CONSULTANCY (PVT) LTD</b> <small>24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)          Tel: +92 42 35113123, +92 42 35113124          Fax: +92 42 35113125          E-mail: info@jers.com.pk, mail@jers.com.pk          Web: http://www.jers.com.pk</small>	PROJECT: <b>PUNJAB CITIES PROGRAM (PCP)</b> DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 270	DRAWING TITLE: <b>ROOF PLAN          PARKING SHED-2          (KAMALIA CITY)</b>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DATE	DESCRIPTION																DRAWN BY: Munir CHECKED BY: Sadat Waleed DATE: OCT,2022	DRAWING NO: <b>D-04</b> SCALE: UNIT=FEET 1"=120" SHEET: 1 OF 1 JOB NO: 488-01
REV.	DATE	DESCRIPTION																						





**TYP. RIGID FRAME SECTIONAL  
ELEVATION A-A**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
FUND COMPANY  
(PMDFC)**

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 Web: http://www.jers.com.pk

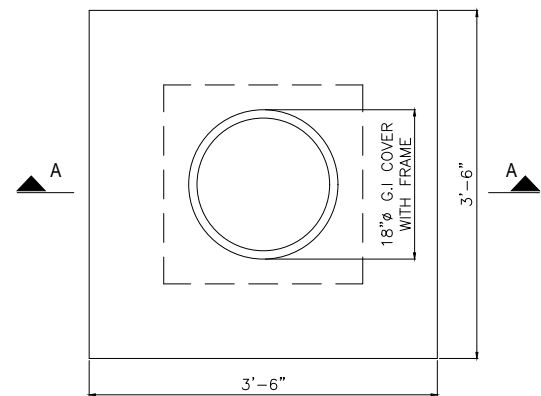
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 271

DRAWING TITLE:  
**RAIN WATER OUTLET DETAIL  
KAMALIA**

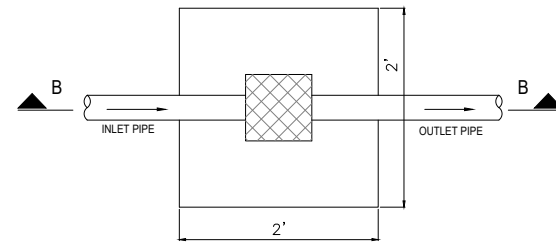
REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

DRAWN BY:  
M.DANISH  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
OCT,2022

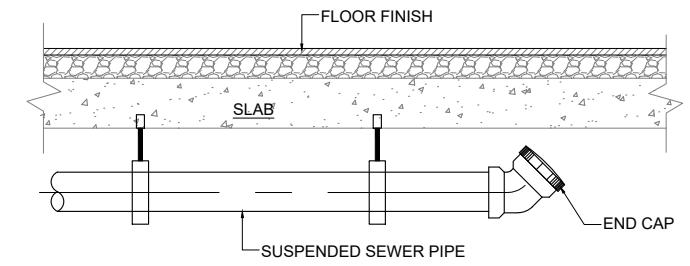
DRAWING NO:  
**D-05**  
 SCALE:  
UNIT=FEET  
 SHEET:  
-  
 JOB NO:  
488-01



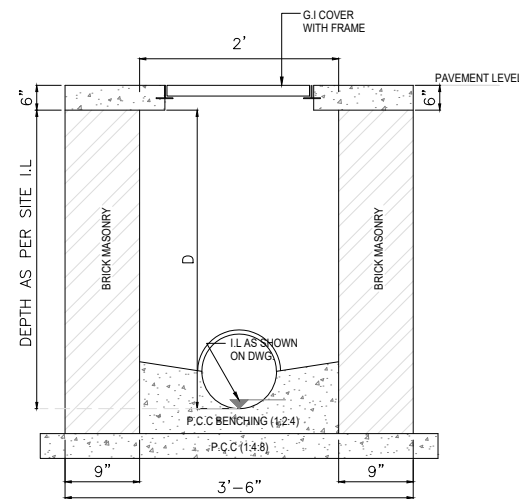
**PLAN  
TYPICAL SEWER MANHOLE**



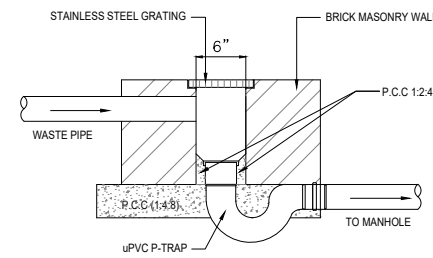
**PLAN  
GULLY TRAP**



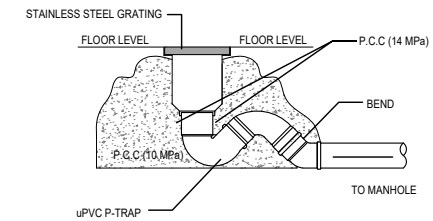
**CLEAN OUT DETAIL  
AT START OF PIPE**



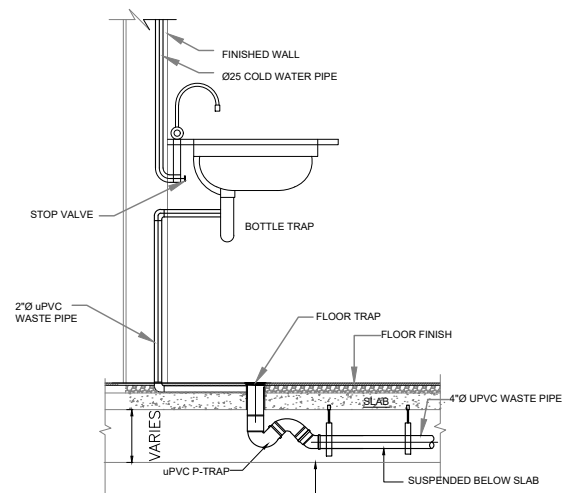
**SECTION A-A**



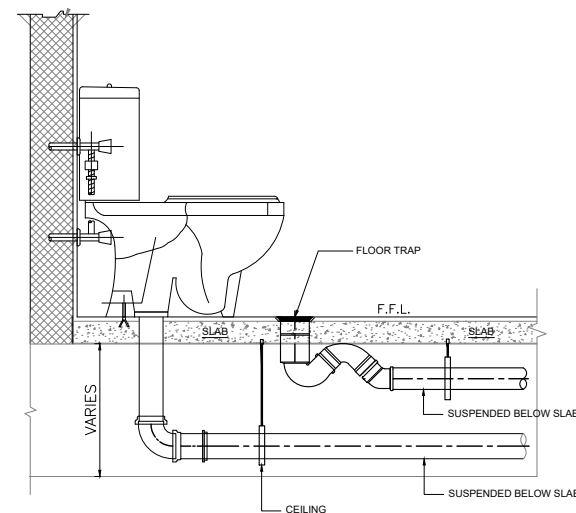
**SECTION B-B**



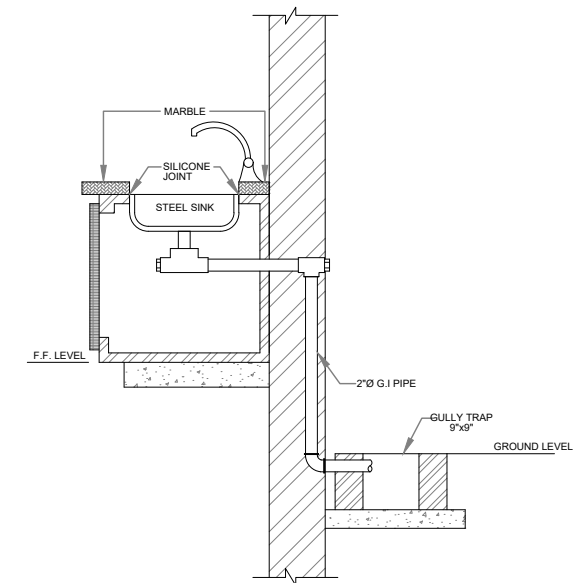
**P-TRAP DETAIL**



**DETAIL OF BASIN CONNECTION  
WITH HANGING P-TRAP**



**DETAIL OF W.C.  
WITH HANGING PIPING**



CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
FUND COMPANY  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

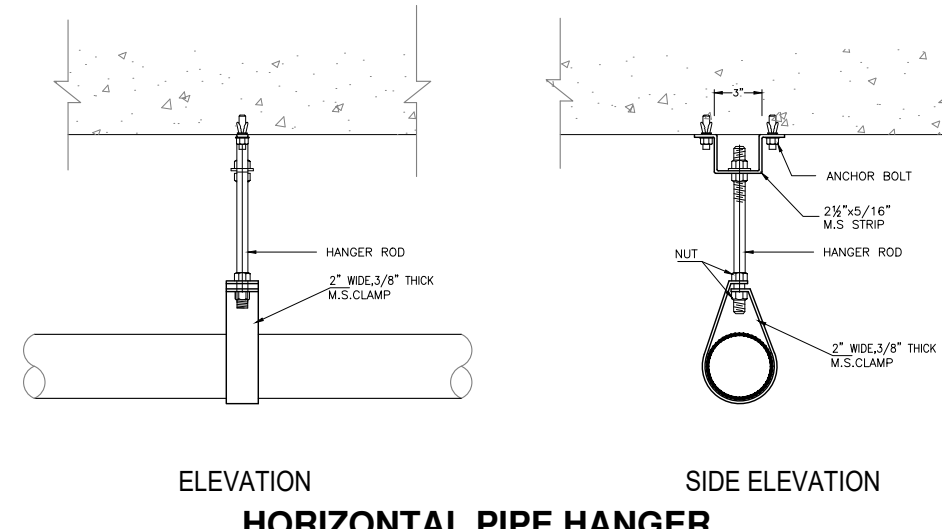
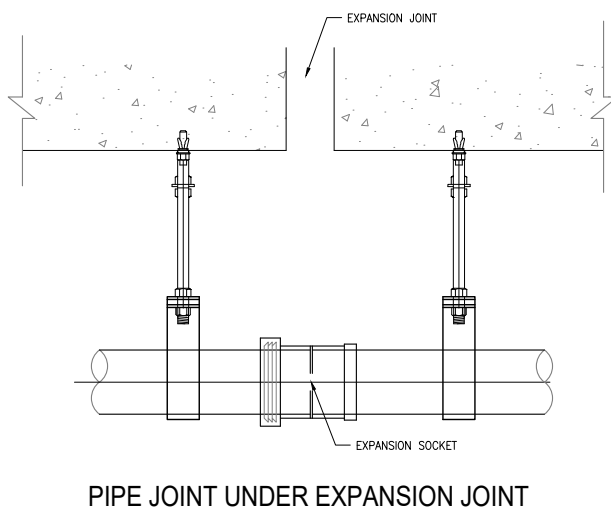
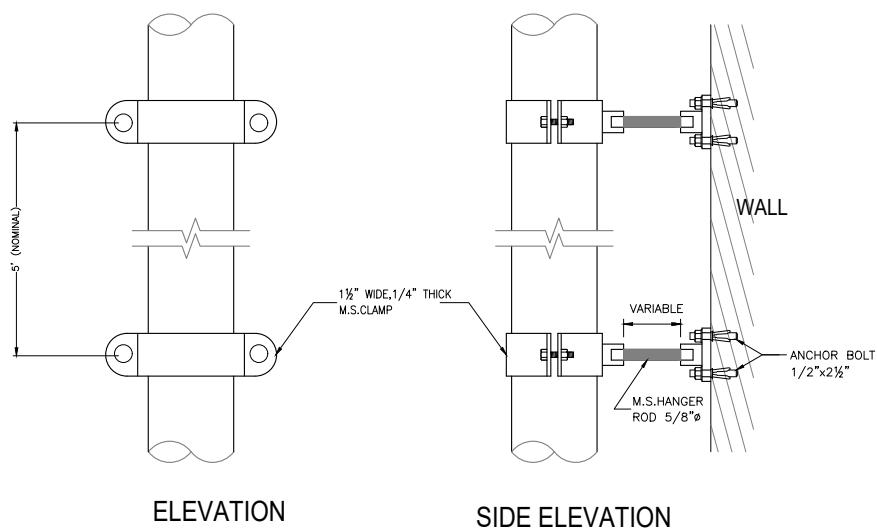
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 272

DRAWING TITLE:  
**MISCELLANEOUS DETAIL-01  
(KAMALIA CITY)**

REV.	DATE	DESCRIPTION

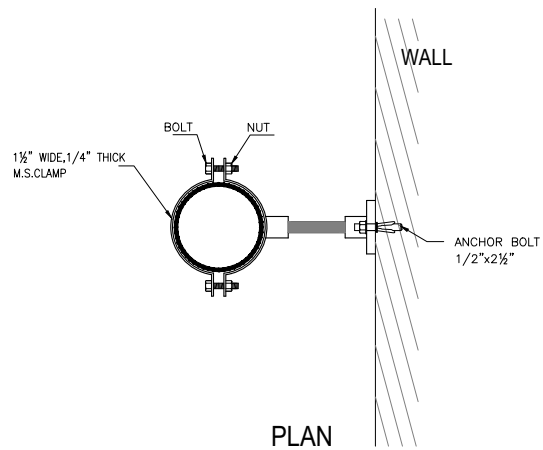
DRAWN BY:  
TALHA  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
OCT, 2022

DRAWING NO:  
**M-01**  
 SCALE:  
UNIT=FEET  
 SHEET:  
1 OF 2  
 JOB NO:  
488-01

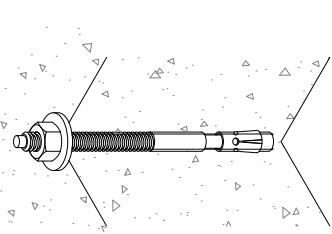


**HORIZONTAL PIPE HANGER**

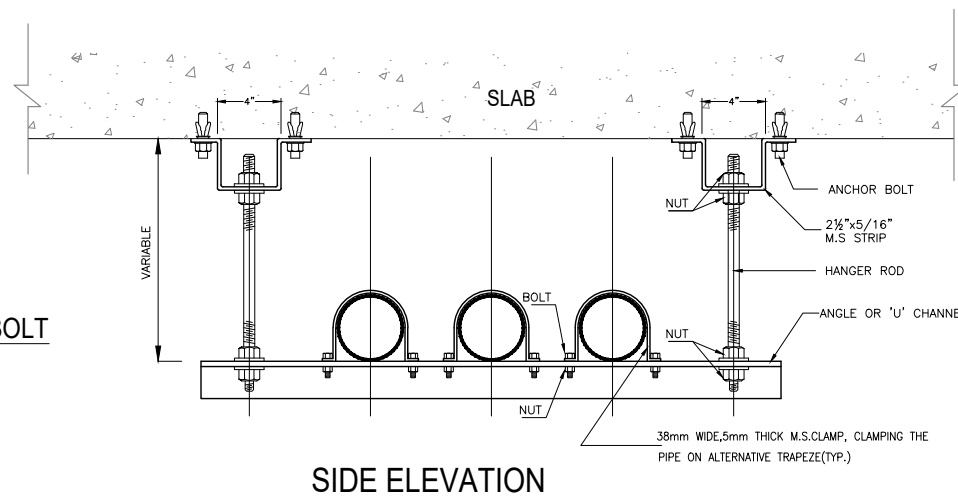
PIPE SIZE	MAX. SPACING	HANGER ROD Ø	ANCHOR BOLT
3/4" — 2"	5'-0"	1/2"	1/2" x 2 1/2"
2 1/2" — 3"	6'-0"	5/8"	1/2" x 2 1/2"
4" — 6"	6'-0"	3/4"	5/8" x 3"



**VERTICAL PIPE HANGERS  
(UP TO 4"Ø PIPE)**



**ANCHOR BOLT  
SEISMICALLY RATED WEDGE ANCHOR BOLT**



**SIDE ELEVATION**

**HORIZONTAL PIPE HANGER (TRAPEZE)**

PIPE SUPPORT SCHEDULE					
PIPE SIZE	HANGER ROD Ø	ANGLE SIZE	U-CHANNEL	SPACING	ANCHOR BOLT
1/2 TO 3/4"	3/8"	1 1/2"x1 1/2"x3/16"	--	5'	1/2" x 2 1/2"
1" TO 1 1/4"	3/8"	2"x2"x1/4"	--	5'	1/2" x 2 1/2"
1 1/2" TO 2 1/2"	1/2"	2 1/2"x2 1/2"x1/4"	--	6'	1/2" x 2 1/2"
3" TO 4"	1/2"	2 1/2"x2 1/2"x3/8"	--	6'	5/8" x 3"
5"	3/4"	3"x3"x3/8"	--	6'	3/4" x 4"
6"	1"	--	3"x1 1/2"x1/4"	7'	3/4" x 4"
8"	1"	--	4"x1 1/4"x5/16"	7'	3/4" x 4"
10"	1"	--	4"x1 1/4"x5/16"	7'	3/4" x 4"
12"	1 1/4"	--	4"x1 1/4"x5/16"	7'	3/4" x 4"

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 273

DRAWING TITLE:  
**MISCELLANEOUS DETAIL-02  
(KAMALIA CITY)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
TALHA  
 CHECKED BY:  
KHADIJA ARIF  
 DATE:  
OCT, 2022

DRAWING NO:  
**M-02**  
 SCALE:  
UNIT=FEET  
 SHEET:  
1 OF 2  
 JOB NO:  
488-01

# **ELECTRICAL DRAWINGS**

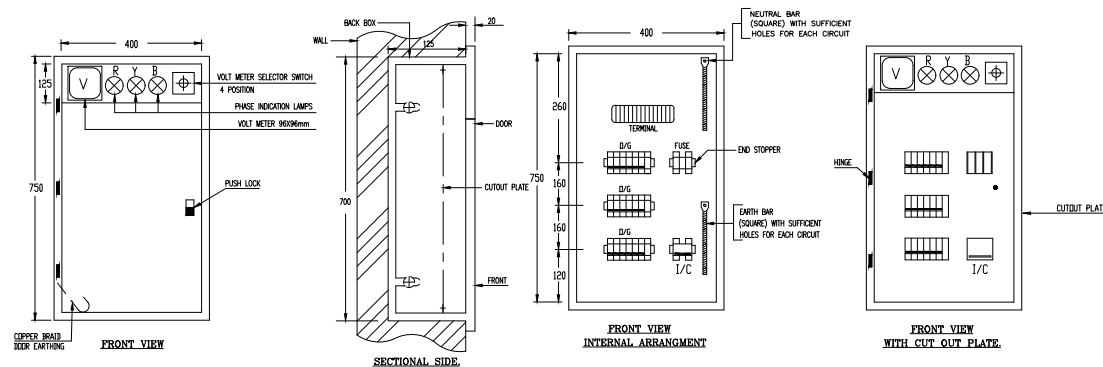
## LEGEND

1 LIGHT FITTINGS & FIXTURES			
S.NO	SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
1		WASHROOM MIRROR LIGHT 9 WATTS LED	6" ABOVE MIRROR
2		SURFACE MOUNTED TUBE LIGHT WITH 2x40 WATTS LED ROD	SURFACE MOUNTED
3		DOWN LIGHT 12 WATTS LED LAMP	SURFACE MOUNTED
4		HIGH BAY HANGING LIGHT 50 WATTS LED LAMP	HANGING OF STEEL STRUCTURE
5		100 WATTS LED FLOOD LIGHT ON 10M HIGH M.S POLE WITH FOUNDATION	ON GROUND
6		EXHAUST FAN	7'-0" ABOVE FFC
7		DISTRIBUTION BOARD	4'-0" FROM FFC
8		SURFACE MOUNTED TUBE LIGHT WITH 1x40 WATTS LED ROD	SURFACE MOUNTED

2 WIRING ACCESSORIES				
S.NO	SYMBOLS	DESCRIPTION	MAKE	MOUNTING HEIGHT
1		GANG TYPE SWITCH 10AMPS, INDICATES NUMBER OF SWITCHES ON GANG PLATE	---	AT WALL +3'-6" FROM F.F.L
2		16 AMP SWITCH SOCKET FOR SPLIT AC ON GANG PLATE	---	AT WALL +6" FROM F.F.L NEAR AC
3		3 PIN COMBINED SWITCH SOCKET 15 AMPS ON M.S JUNCTION BOX	---	AT WALL +0'-9" FROM F.F.L
4		3 PIN COMBINED SWITCH SOCKET UNIVERSAL 13 AMP SOCKET ON M.S JUNCTION BOX	---	AT WALL +0'-9" FROM F.F.L
5		CILING FAN POINT WITH 5/8" M.S HOOK	---	ROOF SUSPENDED
		2x3 PIN COMBINED SWITCH SOCKET UNIVERSAL 13AMP SOCKET	---	AT WALL +0'-9" FROM F.F.L

CAPACITY OF CONDUITS						
S.NO	CAPACITY OF CONDUITS			MAXIMUM NUMBER OF CABLES IN PVC CONDUITS SIZES		
	NOMINAL CONDUCTOR SIZE-mmSq	NO & DIA OF WIRES	OVER ALL DIAMETER	3/4" DIA (20mm DIA)	1" DIA (25mm DIA)	1-1/4" DIA (32mm DIA)
1						
2	1.5	1/1.38	3.1	10	18	30
3	2.5	1/1.78	3.5	8	14	23
4	2.5	7/0.67	3.8	7	12	20
5	4	7/0.85	4.3	5	9	15
6	10	7/1.04	4.9	4	7	12
7	16	7/1.35	6.2	2	4	7
8	16	7/1.78	7.3	-	3	5
9	25	7/2.14	9.0	-	2	3
10	35	19/1.53	10.3	-	-	2

### TENTATIVE CONSTRUCTIONAL DETAIL OF:- DISTRIBUTION BOARD (DB) RECESSED TYPE.



**NOTE:-**  
DIMENSIONS SHOWN ARE INDICATIVE ONLY AND NOT NECESSARILY BE FOLLOWED. HOWEVER ACTUAL DIMENSIONS OF DB SHALL BE GIVEN BY DB MANUFACTURER/SUPPLIER

### GENERAL NOTES:-

- A LEGEND.**  
REFER TO LEGEND FOR THOSE SYMBOLS ONLY MENTIONED ON ALL LAYOUT PLANS. OTHER SYMBOLS SHOWN IN LEGEND BUT NOT ACTUALLY SHOWN ON LAYOUT DRAWINGS MAY PLEASE BE IGNORED.
- B ELECTRICAL WORKS.**  
THE FOLLOWING NOTES SHALL IN GENERAL APPLY TO ALL ELECTRICAL DRAWINGS. THE INSTRUCTIONS IN THESE NOTES SHALL BE FOLLOWED UNLESS ALL ELECTRICAL WORKS PERTAINING TO WIRING OF ELECTRICAL SYSTEMS SHALL STRICTLY CONFORM TO I.E.E LATEST EDITION OF RULES & REGULATIONS.
- 2 ELECTRICAL DRAWINGS**  
ALL ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH BOQ, TECHNICAL SPECIFICATIONS AND IN CO-ORDINATION WITH ARCHITECTURAL, STRUCTURAL, PLUMBING AND HVAC DRAWINGS.
- 3 DIMENSIONS ON ELECTRICAL LAYOUT PLANS**  
ALL DIMENSIONS IF SHOWN ON THE ELECTRICAL LAYOUT PLANS ARE APPROXIMATE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO DO ALL NECESSARY CALCULATIONS TO ARRIVE AT THE ACTUAL DIMENSIONS/MEASUREMENTS IN CO-ORDINATION WITH ALL OTHER RELEVANT DRAWINGS OF OTHER SERVICES.
- 4 SHOP DRAWINGS**  
THE ELECTRICAL CONTRACTOR SHALL PREPARE ELECTRICAL SHOP DRAWINGS WITH ALL NECESSARY RELEVANT DETAILS. THE SHOP DRAWINGS SHALL BE SUBMITTED TO ENGINEER TENDER DRAWING BEFORE THE COMMENCEMENT OF ANY WORKS AT SITE.
- 5 CO-ORDINATION**  
THE ELECTRICAL CONTRACTOR SHALL DO ALL NECESSARY CO-ORDINATION OF ELECTRICAL WORKS AND ALLIED SYSTEMS WITH ALL OTHER SERVICES AT SITE.
- 6 BALANCING OF ELECTRICAL LOADS**  
ELECTRICAL LOADS ON ALL 3 PHASES SHALL BE BALANCED ON THE ELECTRICAL WORKS AT THE TIME OF TESTING AND COMMISSIONING OF THE ELECTRICAL INSTALLATIONS.
- 7 ELECTRICAL WIRING.**  
ALL WIRING SHALL BE DONE IN PVC CONDUIT TO BE CONCEALED IN WALLS, SLABS, COLUMNS AND FLOORS OR AS SHOWN ON DRAWINGS.
- 8 THE WIRING SHOULD BE STARTED ONLY AFTER THE CONDUIT SYSTEM HAS BEEN COMPLETED AND ALL OUTLET BOXES ARE FIXED AT THEIR RESPECTIVE POSITIONS.**
- 9 PVC CONDUITS.**  
ALL PVC CONDUIT SHALL BE OF 3/4" OR 1" DIA (DEPENDING UPON NUMBER OF WIRES) FROM SWITCH BOARD TO LIGHT POINTS & 1" DIA FROM DBs TO SWITCH BOARDS AND POWER SOCKETS OR AS SHOWN ON DRAWINGS.
- 10 LUBRICATION.**  
NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED FOR PULLING OF WIRES IN PVC CONDUITS. NO OIL OF ANY KIND SHALL BE USED.
- 11 COLOUR CODING**  
COLOUR CODING FOR WIRING SHALL BE AS FOLLOWS: RED, YELLOW AND BLUE FOR PHASES, BLACK FOR NEUTRAL AND GREEN / YELLOW FOR CPC (EARTH).
- 12 SIZE OF WIRES**  
FOLLOWING SIZES OF PVC INSULATED WIRES WITH COPPER CONDUCTORS SHALL BE USED FOR INTERNAL WIRING, UNLESS STATED OTHERWISE.
- 12.1** 1.5mm sq PVC INSULATED WIRES SHALL BE USED FROM SWITCH BOARD TO LIGHT POINTS AND 5 Amps SOCKETS OR AS SPECIFIED IN B.O.Q
- 12.2** 2.5mm sq PVC INSULATED WIRES SHALL BE USED FROM DB TO SWITCH BOARDS FOR LIGHTING CIRCUITS.
- 12.3** 4mm sq OR 6mm sq PVC INSULATED WIRES OR AS SHOWN ON DRAWING/BOQ SHALL BE USED FOR WIRING FROM DB TO POWER SOCKETS.
- 12.4 BACK BOXES**  
ALL BACK BOXES FOR SWITCHES & SOCKETS SHALL MADE OF POLYCARBONATE SHEET 16SWG OR AS SPECIFIED IN BOQ WITH EARTH TERMINAL SIZE OF BACK BOX SHALL CORRESPOND TO THE SIZE OF SWITCHES/SOCKETS.
- 13 EARTHING OF POINTS.**  
ALL ELECTRICAL AND POWER SOCKETS SHALL BE PROPERLY EARTHED WITH 2.5mm sq PVC INSULATED WIRES OF COLOUR GREEN-YELLOW.
- 14 CAPACITY OF CONDUITS.**  
THE NUMBER OF WIRES TO BE PULLED IN ANY CONDUIT FOR WIRING PURPOSES SHALL CONFORM TO I.E.E RULES & REGULATIONS
- 15 CONDUIT FOR LIGHT WIRING.**  
WIRING SHALL BE DONE IN 3/4" & 1" DIA PVC CONDUIT FOR LIGHT POINTS AND CIRCUIT WIRING ON NORMAL/ GENERATOR SUPPLY OR AS SPECIFIED IN BOQ OR AS SHOWN ON DRAWINGS.
- DISTRIBUTION BOARDS**  
**"LIGHT" & "POWER"**  
ALL DISTRIBUTION BOARDS SHOWN ON DRAWINGS SHALL BE CONCEALED IN WALL & INSTALLED AT 4FT (1000mm) F.F.L OR AS SHOWN IN LEGEND/DRAWINGS.
- C TELEPHONE CONDUIT**  
PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF TELEPHONE POINTS. PVC CONDUIT SHALL BE BURIED IN FLOOR /SLAB & WALLS FROM TDBs TO TELEPHONE POINTS, OR AS SHOWN ON DRAWINGS./B.O.Q
- D FIRE ALARM WIRING.**  
PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF FIRE ALARM POINTS. PVC CONDUIT SHALL BE BURIED IN FLOOR /SLAB & WALLS FROM FACP TO FIRE ALARM POINTS, OR AS SHOWN ON DRAWINGS./B.O.Q
- 2 FIRE ALARM JUNCTION BOX (FAJB).**  
G.I JUNCTION BOX 225x150x100mm 16 SWG WITH COVER CONCEALED IN WALL AT 225mm BELOW SLAB TO FACILITATE PULLING OF FIRE ALARM CABLES.
- E CLOSE CIRCUIT TV (CCTV) WIRING.**  
PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF CCTV SYSTEM. PVC CONDUIT SHALL BE BURIED IN SLAB, WALLS & COLUMNS OR AS SHOWN ON DRAWING/BOQ
- 2 CLOSE CIRCUIT TV JUNCTION BOX (CCJB).**  
G.I JUNCTION BOX 225x150x100mm 16 SWG WITH COVER CONCEALED IN WALL AT 225mm BELOW SLAB TO FACILITATE PULLING OF CLOSE CIRCUIT TV CABLES.
- F OTHER SYSTEMS.**  
25mm DIA PVC CONDUIT SHALL BE USED FOR WIRING OF ALL OTHER SYSTEMS UNLESS OTHERWISE MENTIONED ON PLANS OR AS SPECIFIED IN B.O.Q
- G ELECTRICAL CONSULTANT.**  
ELECTRICAL CONTRACTOR TO CONSULT ELECTRICAL CONSULTANT/ENGINEER FOR ANY FURTHER CLARIFICATIONS. NO ASSUMPTIONS SHOULD BE MADE.
- H ELECTRICAL TESTS.**  
CONTRACTOR SHALL CARRY OUT ALL ELECTRICAL TESTS AT HIS EXPENSE THROUGH LICENSED ELECTRICAL SUPERVISOR IN THE PRESENCE OF ENGINEER INCHARGE OR HIS REPRESENTATIVE.

CLIENT:  
**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
**JERS CONSULTANCY (PVT) LTD**  
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
Tel: +92 42 35113123, +92 42 35113124  
Fax: +92 42 35113125  
E-mail: info@jers.com.pk, mail@jers.com.pk  
Web: http://www.jers.com.pk

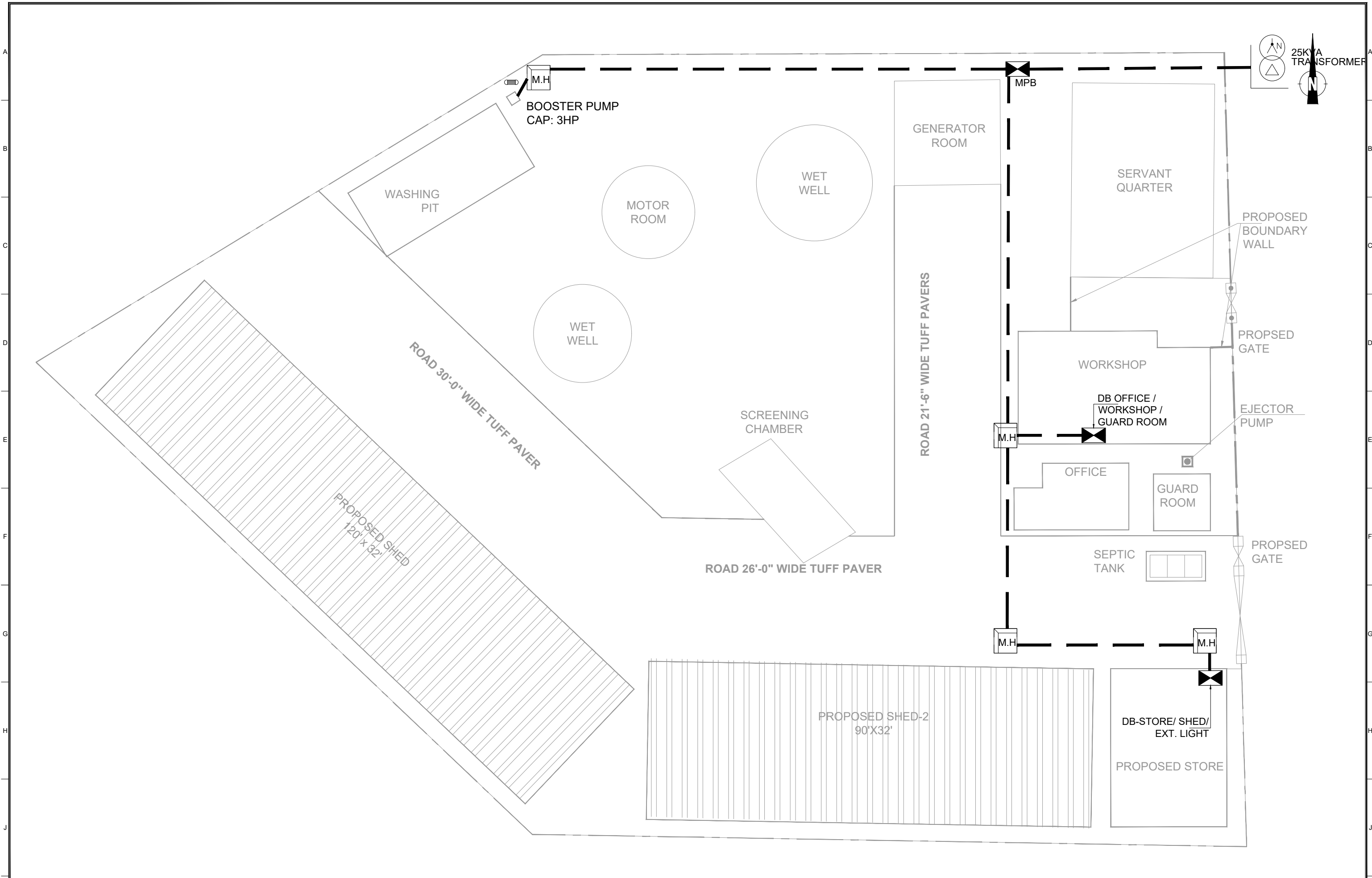
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 275


DRAWING TITLE:  
**LEGEND & NOTES KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

DRAWN BY:  
FATIMA ZAHRA  
CHECKED BY:  
ASAD KHALID  
DATE:  
June, 2022

DRAWING NO:  
**E-00**  
SCALE:  
UNIT=FEET NTS  
SHEET:  
1 OF 1  
JOB NO:  
488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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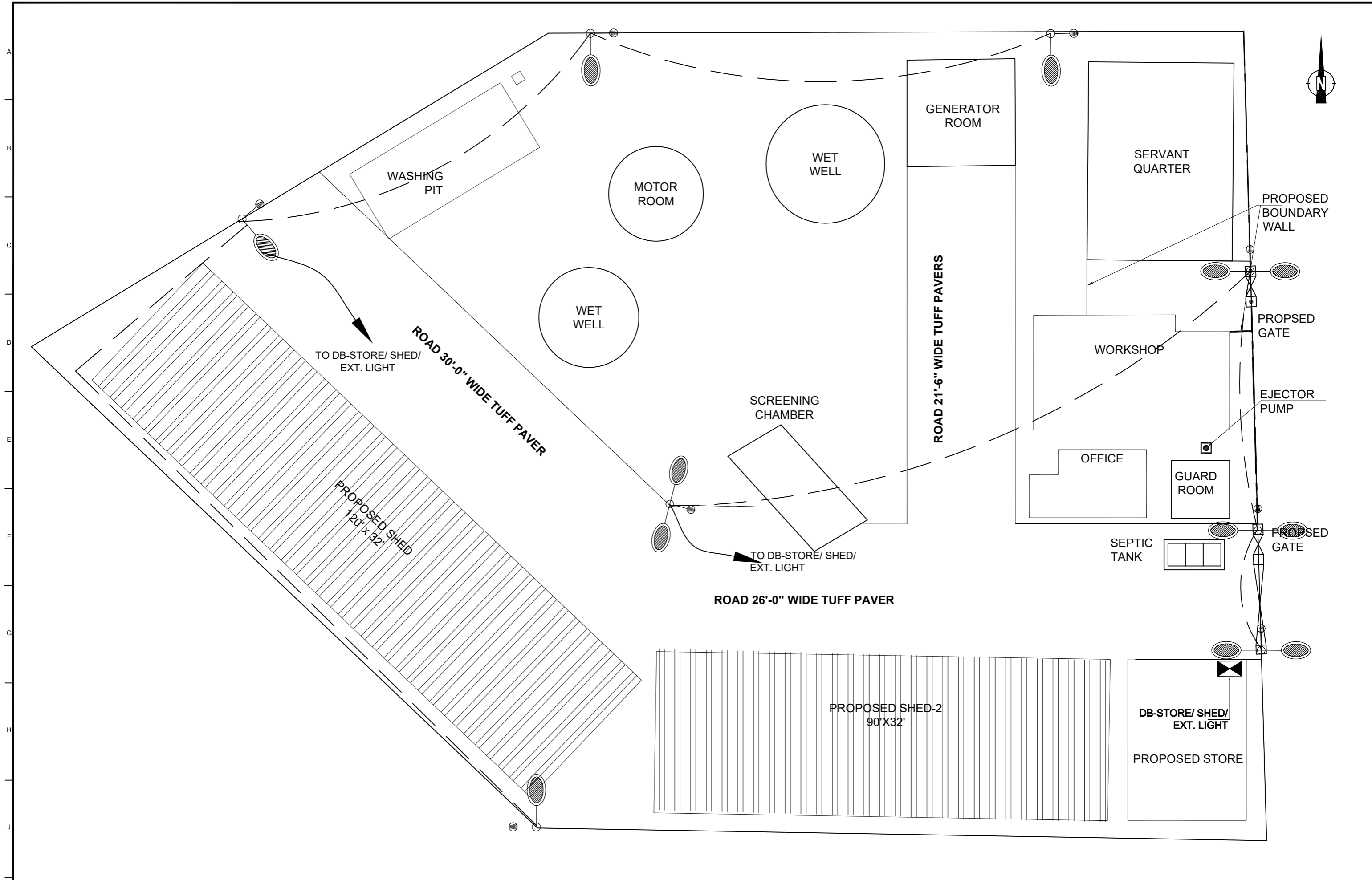
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 276


DRAWING TITLE:  
**CABLE ROUTE LAYOUT PLAN  
 PARKING SHED AREA  
 (KAMALIA)**

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
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-	-	-
-	-	-
-	-	-

DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
OCT,2022

DRAWING NO:  
E-01  
 SCALE:  
UNIT=FEET  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  
 **JERS CONSULTANCY (PVT) LTD**  
 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
 Web: http://www.jers.com.pk

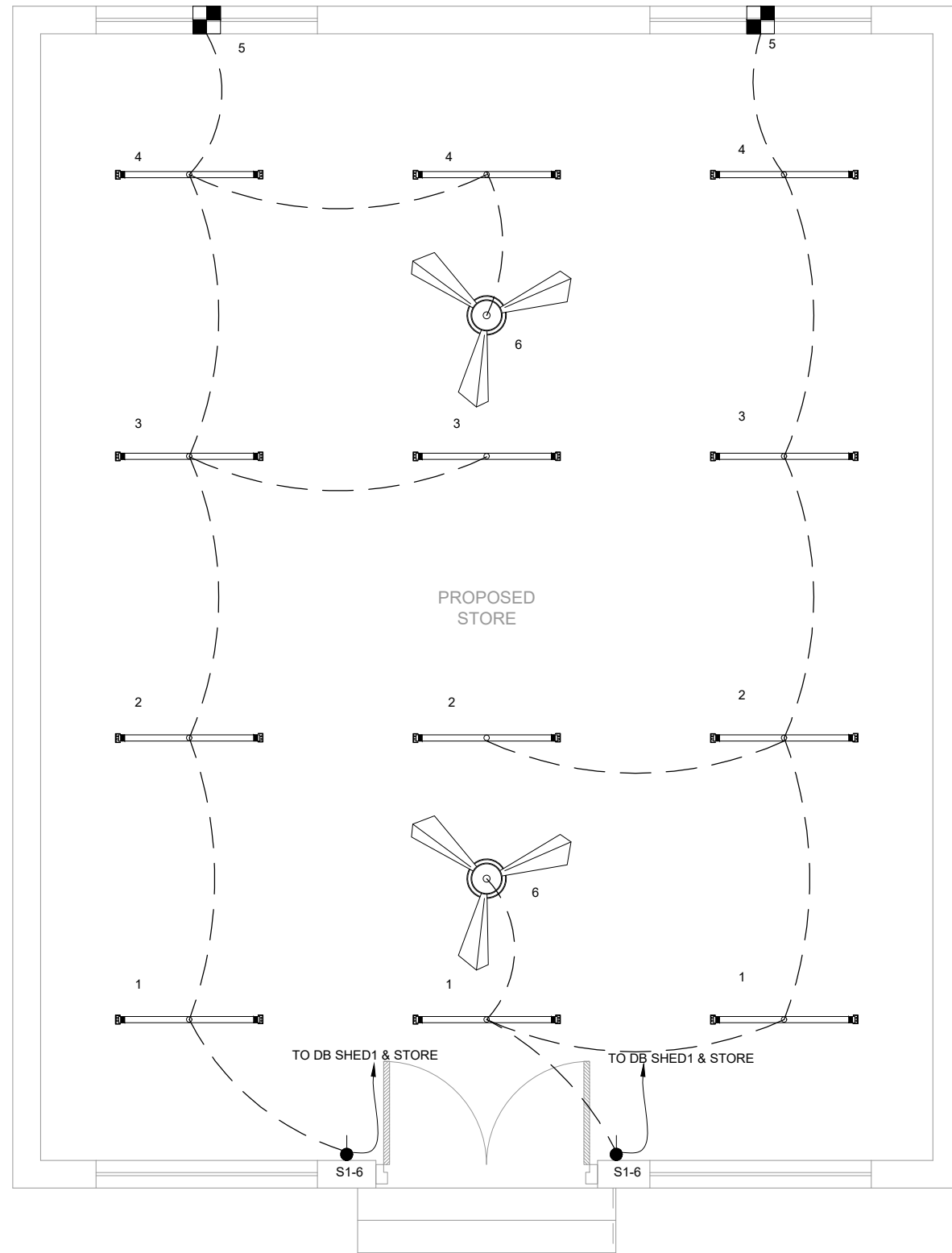
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB.

DRAWING TITLE:  
**EXTERNAL LIGHTING & DBs LAYOUT  
 PLAN PARKING SHED AREA  
 (KAMALIA)**

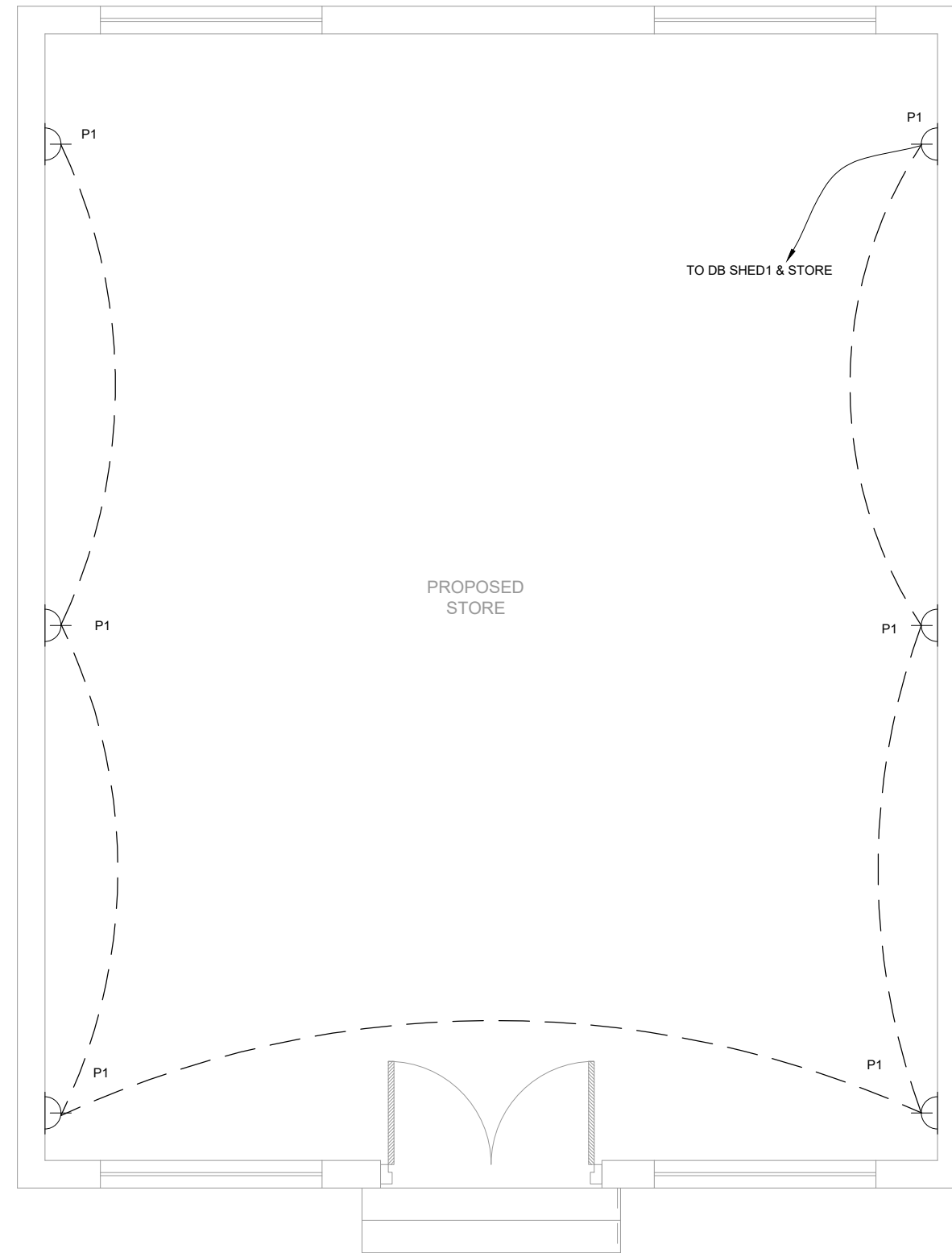
REV.	DATE	DESCRIPTION

DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
OCT, 2022

DRAWING NO:  
E-02  
 SCALE:  
UNIT=FEET  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**GROUND FLOOR PLAN  
LIGHTING LAYOUT PLAN**



**GROUND FLOOR PLAN  
SMALL POWER LAYOUT PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
FUND COMPANY  
(PMDFC)**

CONSULTANTS:  

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 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 278

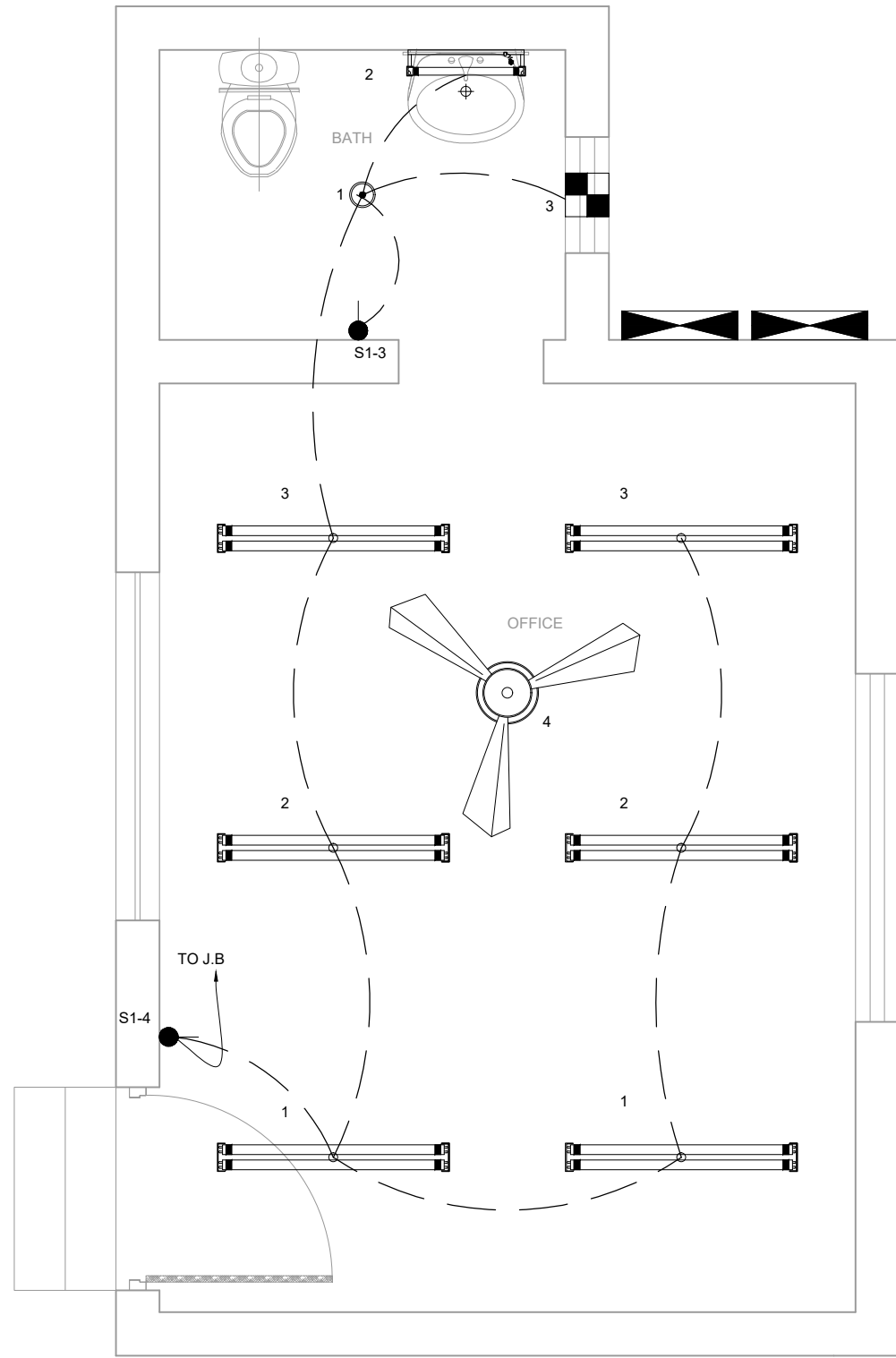
DRAWING TITLE:  
**LIGHTING & SMALL POWER  
LAYOUT PLAN  
PROPOSED STORE  
KAMALIA**

REV.	DATE	DESCRIPTION
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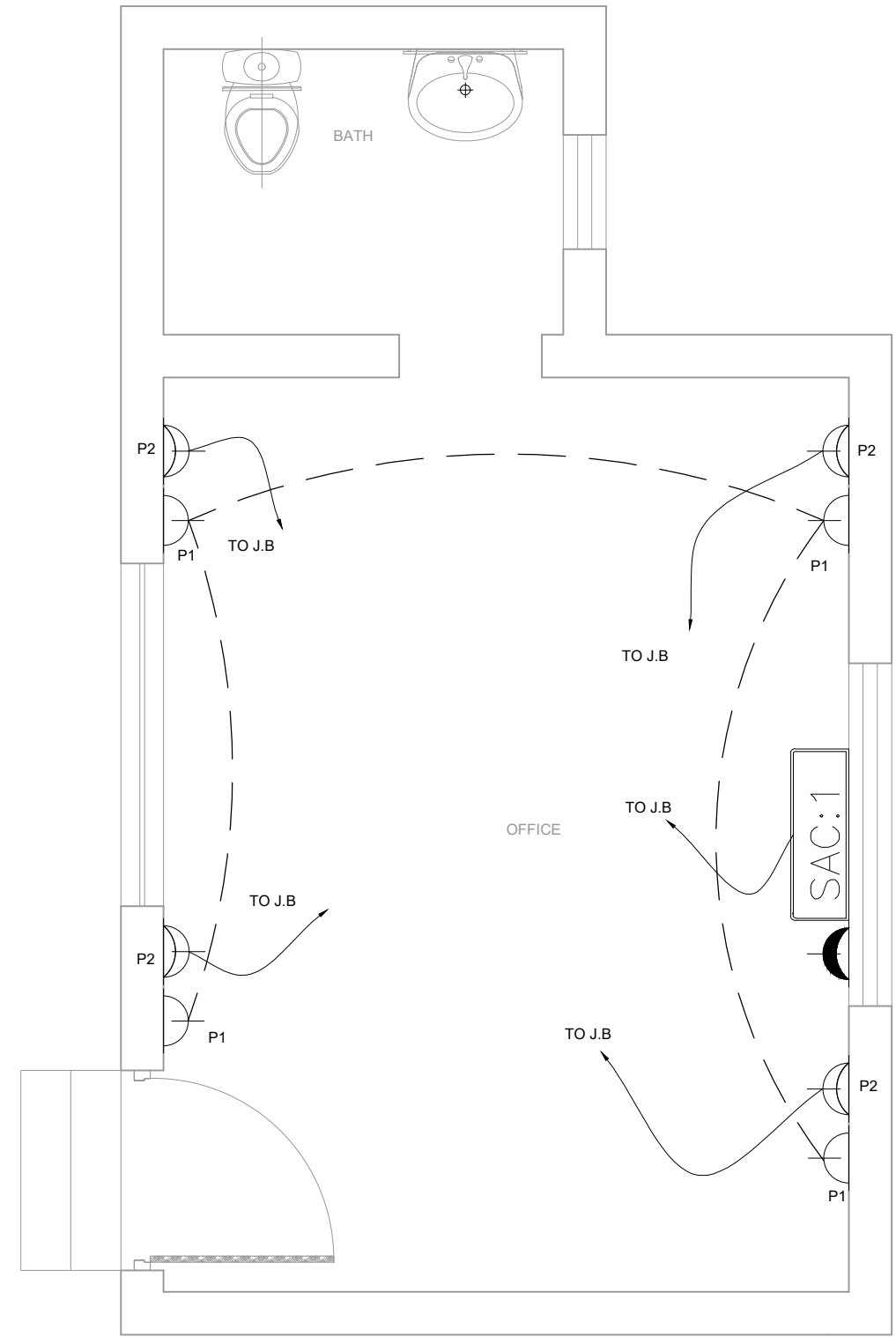
DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
June, 2022

DRAWING NO:  
**E-03**  
 SCALE:  
3/8"=1'-0"  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01





GROUND FLOOR PLAN  
LIGHTING LAYOUT PLAN



GROUND FLOOR PLAN  
SMALL POWER LAYOUT PLAN

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)  
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 E-mail: info@jers.com.pk, mail@jers.com.pk  
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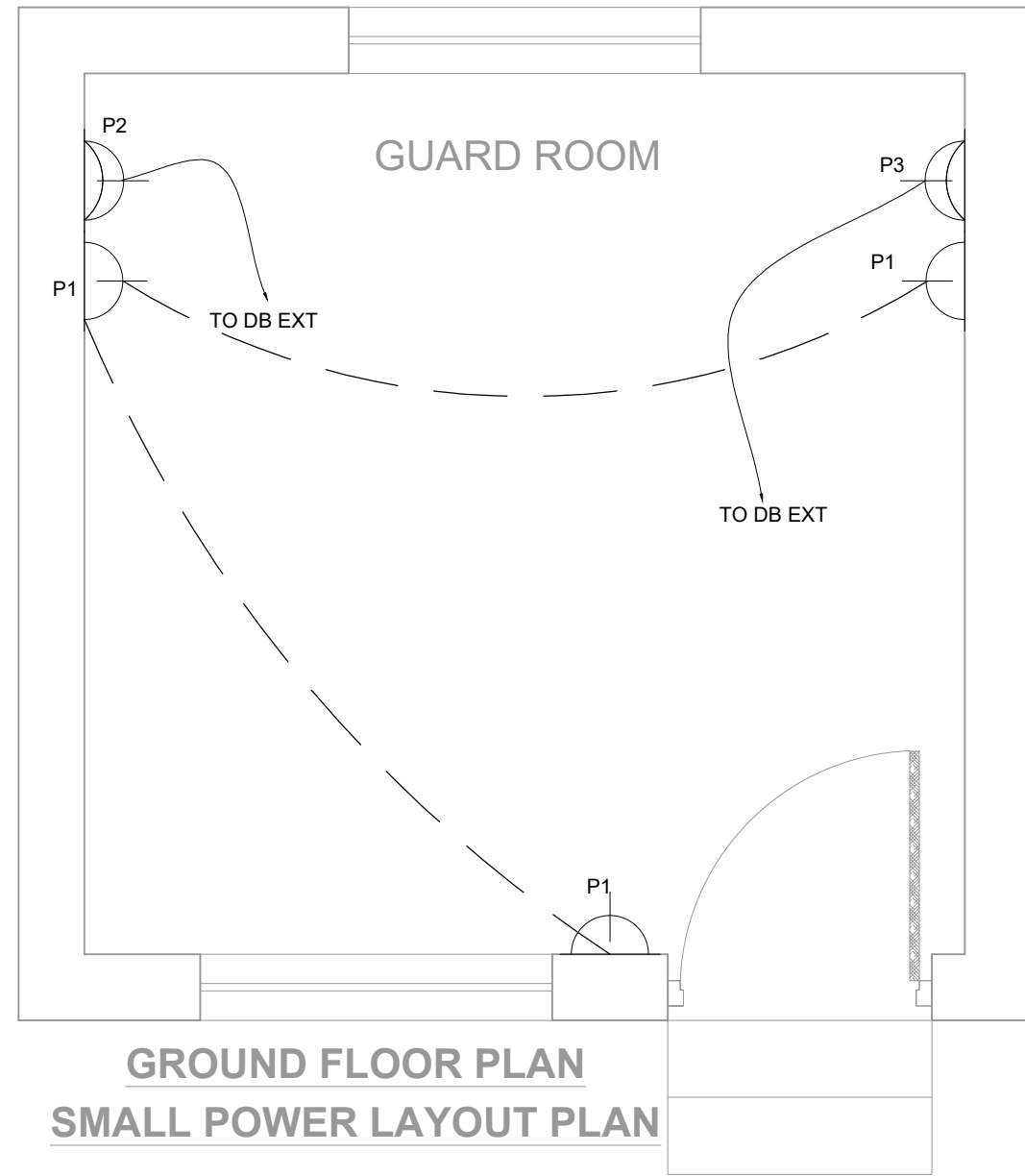
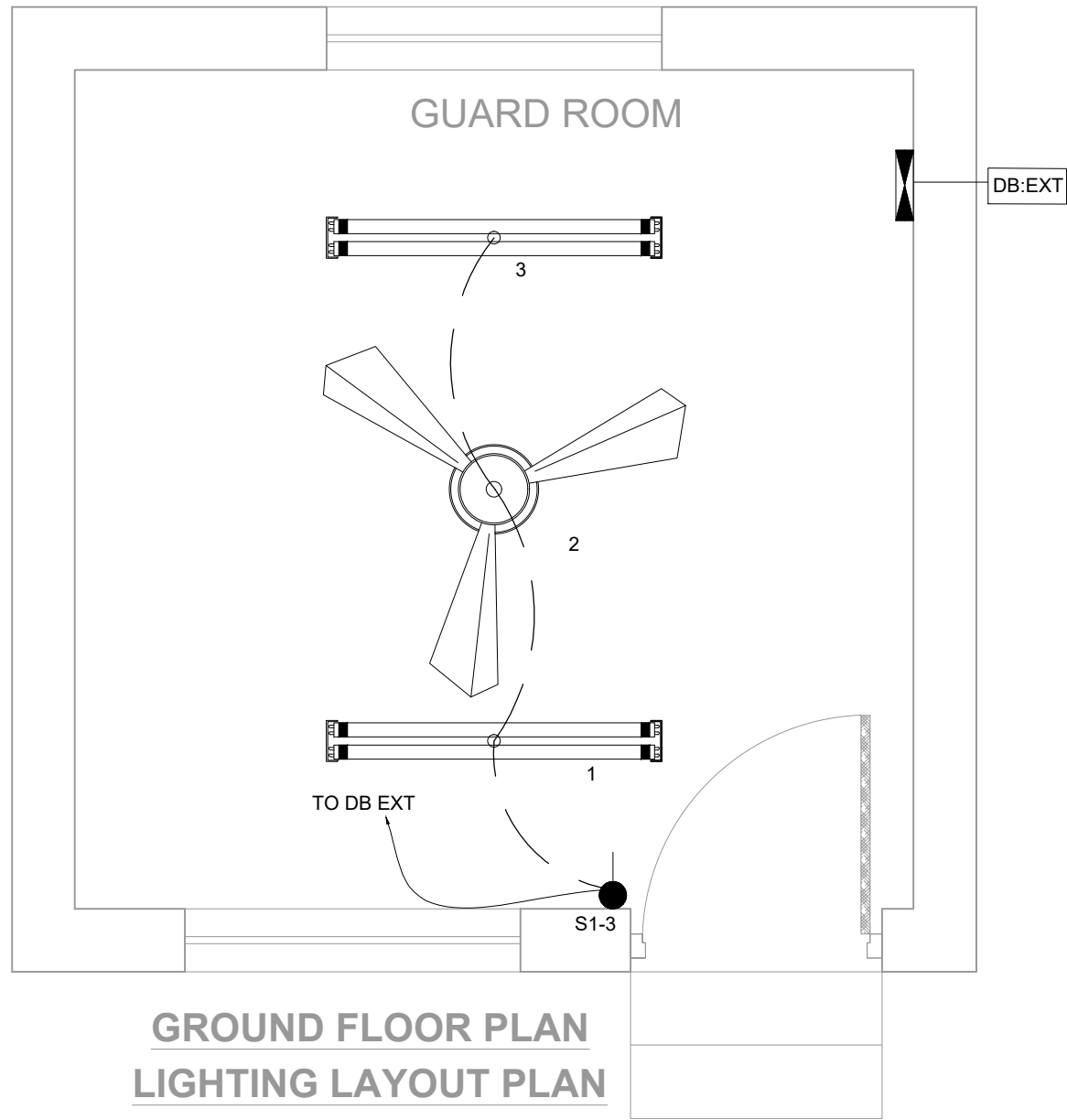
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 279

DRAWING TITLE:  
**LIGHTING & SMALL POWER LAYOUT PLAN OFFICE BLOCK KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
June, 2022

DRAWING NO:  
**E-04**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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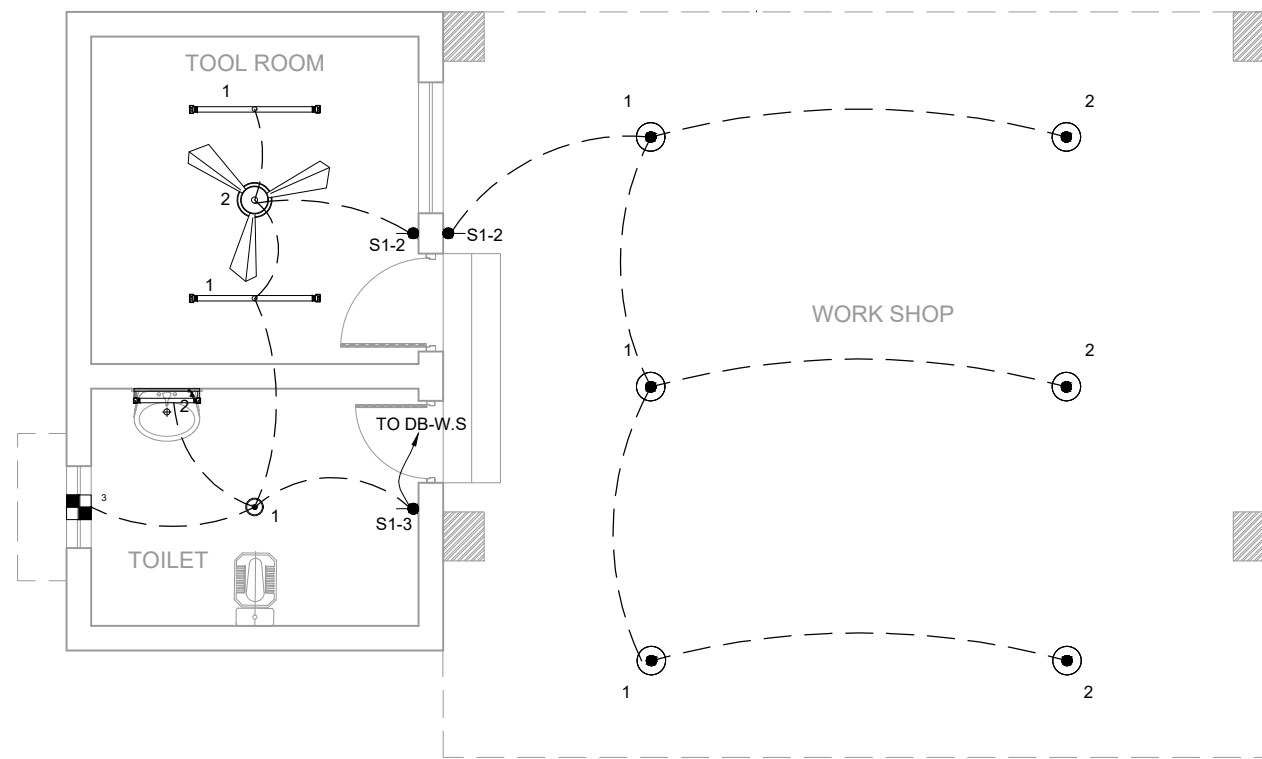
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 280

DRAWING TITLE:  
**LIGHTING & SMALL POWER LAYOUT PLAN**  
**GUARD ROOM**  
**KAMALIA**

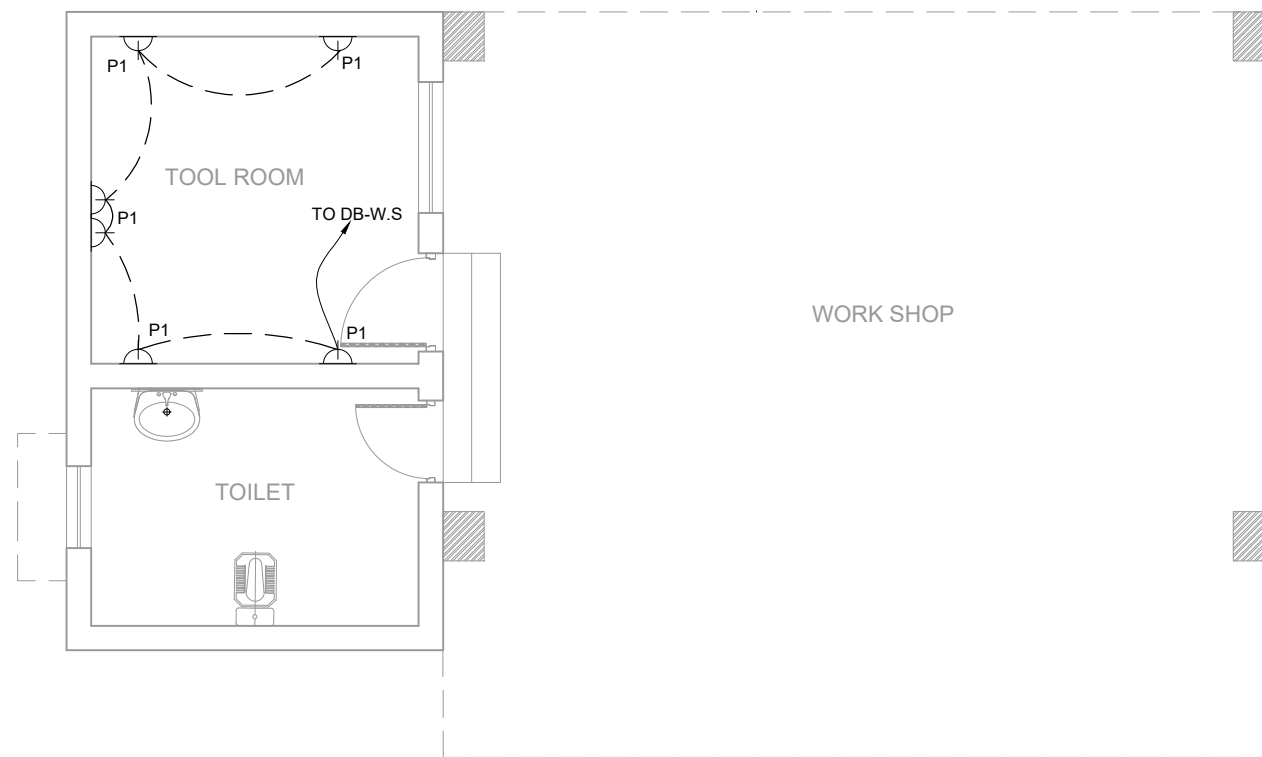
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DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
June, 2022

DRAWING NO:  
**E-05**  
 SCALE:  
UNIT=FEET  
NTS  
 SHEET:  
1 OF 1  
 JOB NO:  
488-01



**GROUND FLOOR PLAN  
LIGHTING LAYOUT PLAN**



**GROUND FLOOR PLAN  
SMALL POWER LAYOUT PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT  
FUND COMPANY  
(PMDFC)**

CONSULTANTS:  

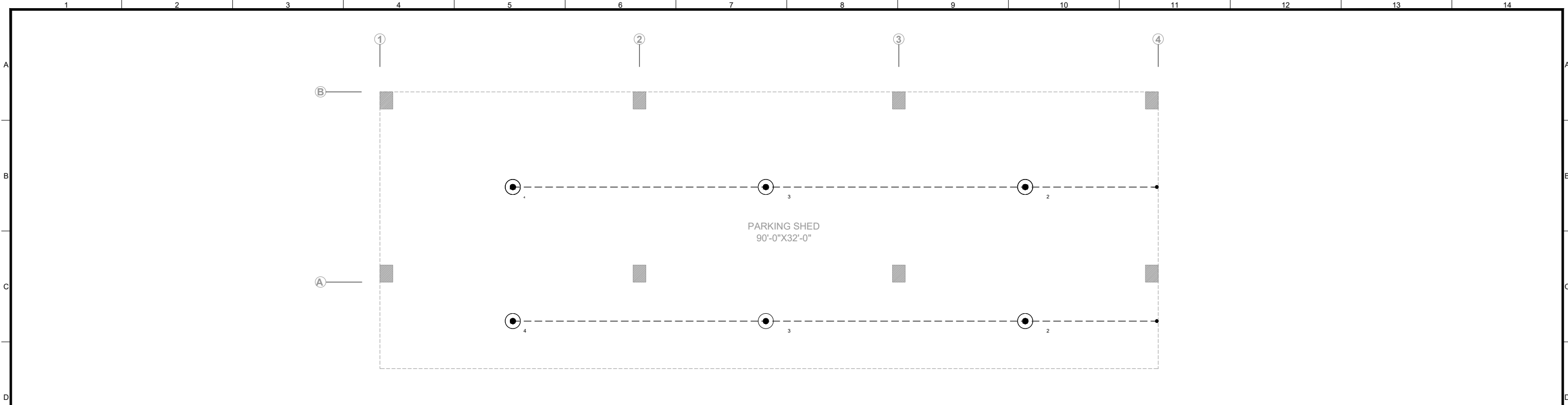
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 281

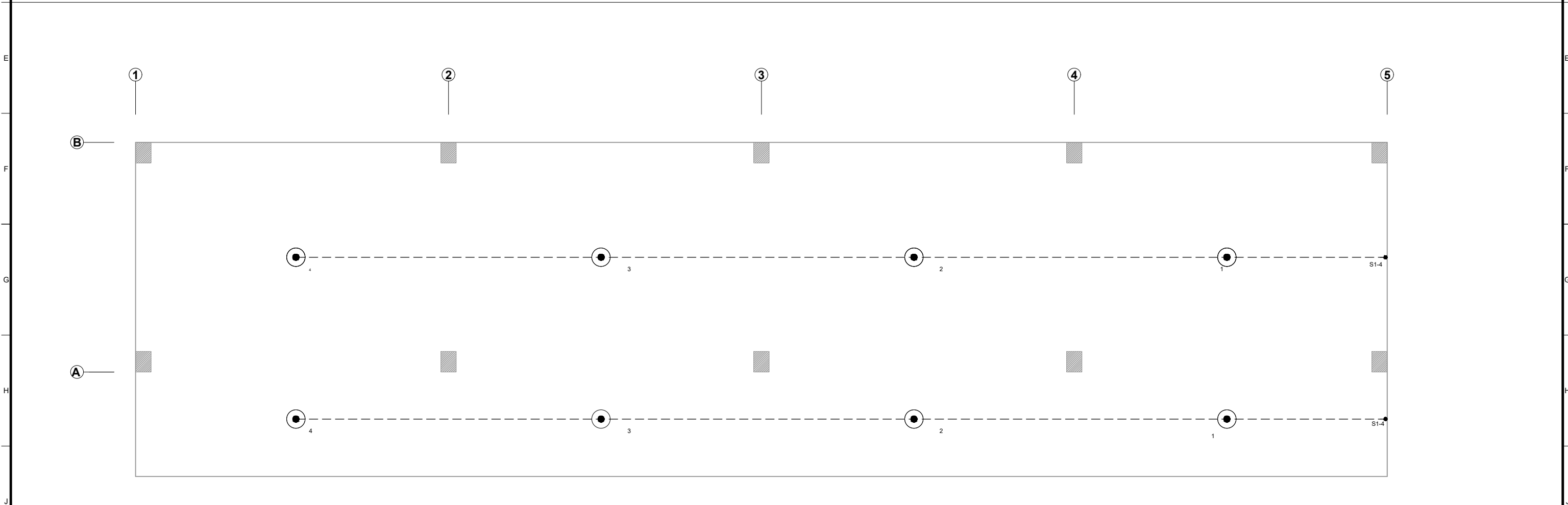
DRAWING TITLE:  
**LIGHTING & SMALL POWER  
LAYOUT PLAN  
WORKSHOP  
KAMALIA**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA	DRAWING NO: <b>E-06</b>
CHECKED BY: ASAD KHALID	SCALE: UNIT=FEET NTS
DATE: June,2022	SHEET: 1 OF 1 JOB NO: 488-01



**COLUMN & FOOTING LAYOUT PLAN**



**COLUMN LAYOUT PLAN**

CLIENT:  

**PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

CONSULTANTS:  

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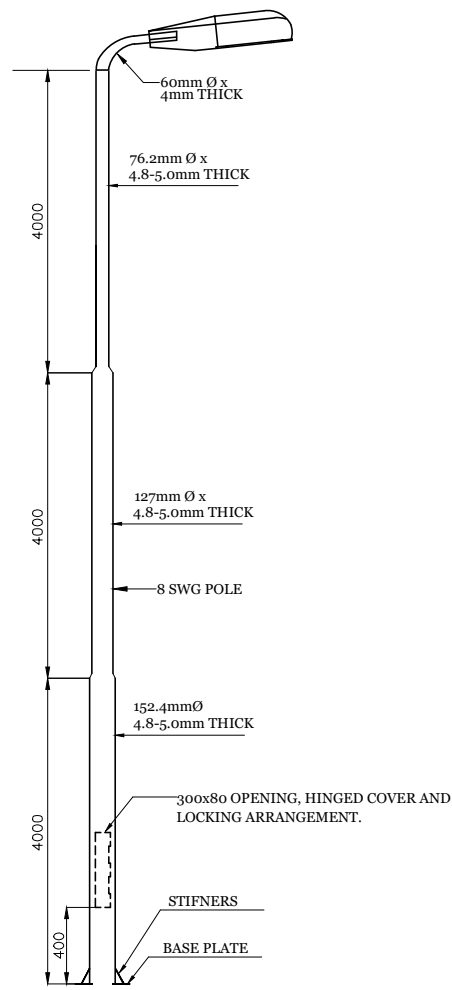
PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 282

DRAWING TITLE:  
**LIGHTING LAYOUT PLAN**  
**PARKING SHED 01&02**  
**KAMALIA**

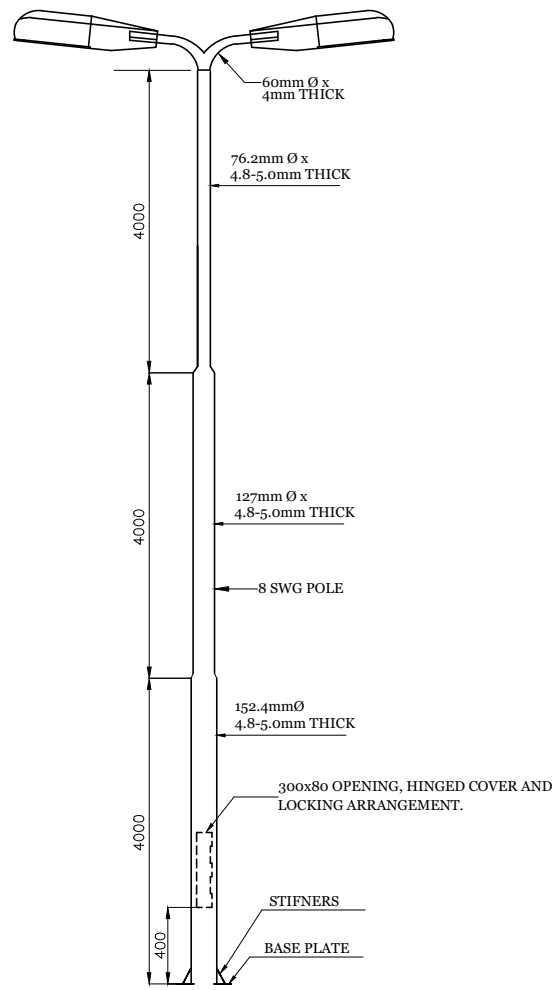
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:  
 FATIMA ZAHRA  
 CHECKED BY:  
 ASAD KHALID  
 DATE:  
 June,2022

DRAWING NO:  
**E-07**  
 SCALE:  
 UNIT=FEET  
 NTS  
 SHEET:  
 1 OF 1  
 JOB NO:  
 488-01

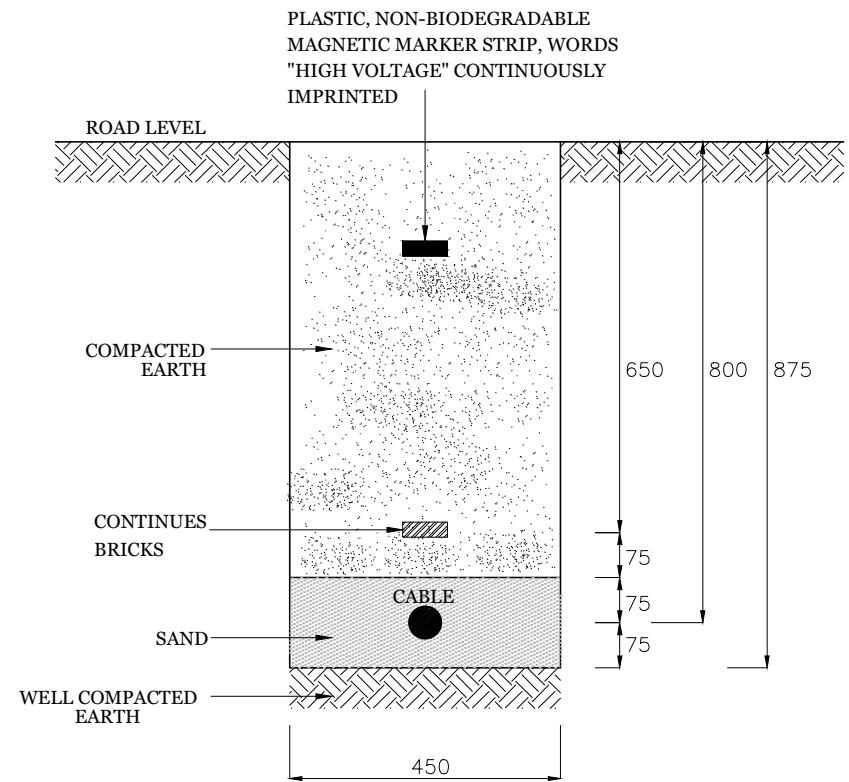


**DETAIL-A**  
SINGLE ARM POLE LIGHT  
FIXING DETAIL

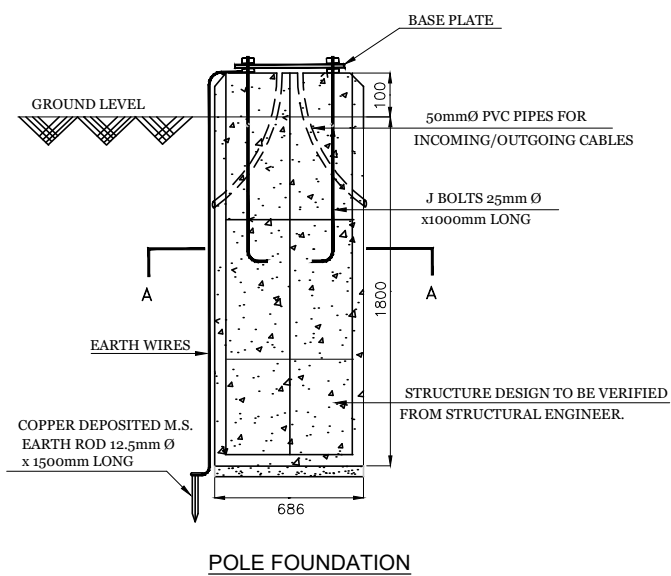


**DETAIL-B**  
DOUBLE ARMS POLE  
LIGHT FIXING DETAIL

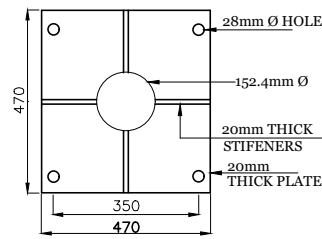
**SINGLE & DOUBLE ARM HOT DIP GALVANIZED  
OCTAGONAL POLE WITH DETAILS**



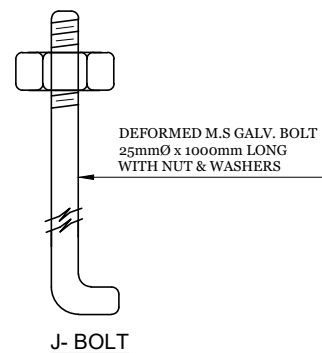
**LOW TENSION (LT) CABLE  
LAYING DETAIL**



**POLE FOUNDATION**



**SECTION A-A  
BASE PLATE FOR POLES**



**J- BOLT**

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT  
FUND COMPANY  
(PMDFC)**

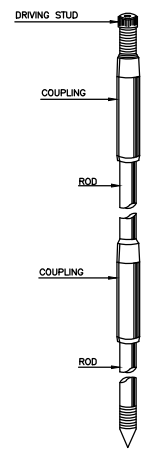
CONSULTANTS:  
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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 283

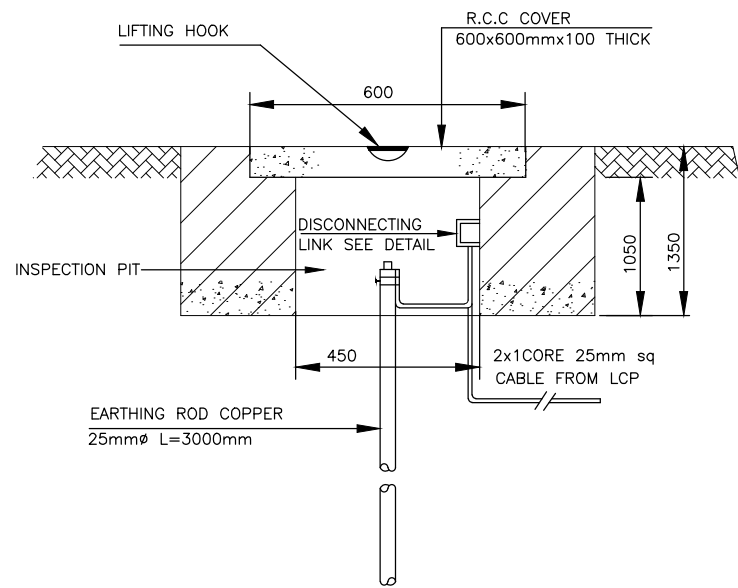
DRAWING TITLE:  
**MISCELLANEOUS DETAIL-01**

DRAWN BY:  
FATIMA ZAHRA  
 CHECKED BY:  
ASAD KHALID  
 DATE:  
JUNE, 2022

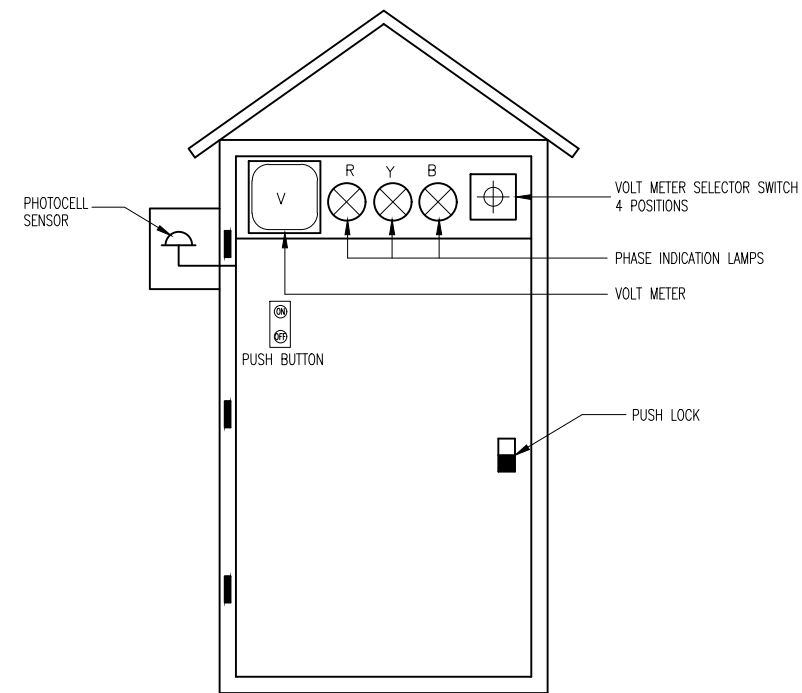
DRAWING NO:  
**E-08**  
 SCALE:  
UNIT=FEET  
1"=80'  
 SHEET:  
01 OF 01  
 JOB NO:  
488-01



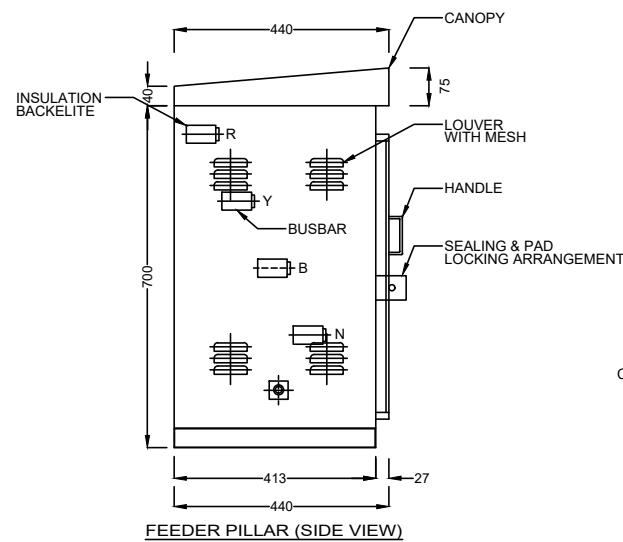
DETAIL OF EARTHING ELECTRODE



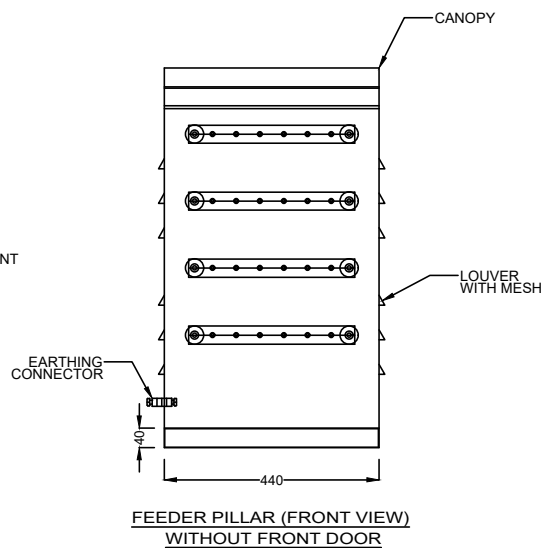
EARTHING DETAIL



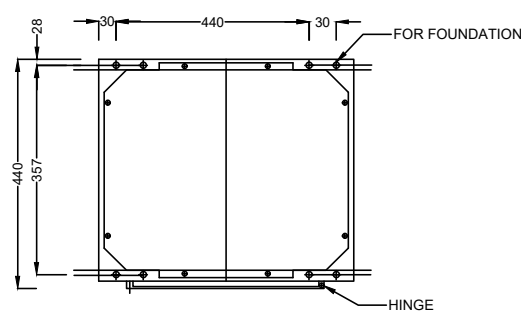
FRONT VIEW OF LIGHT CONTROL PANEL FOR EXTERNAL LIGHTS



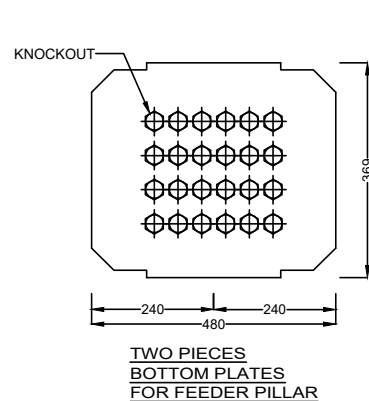
FEEDER PILLAR (SIDE VIEW)



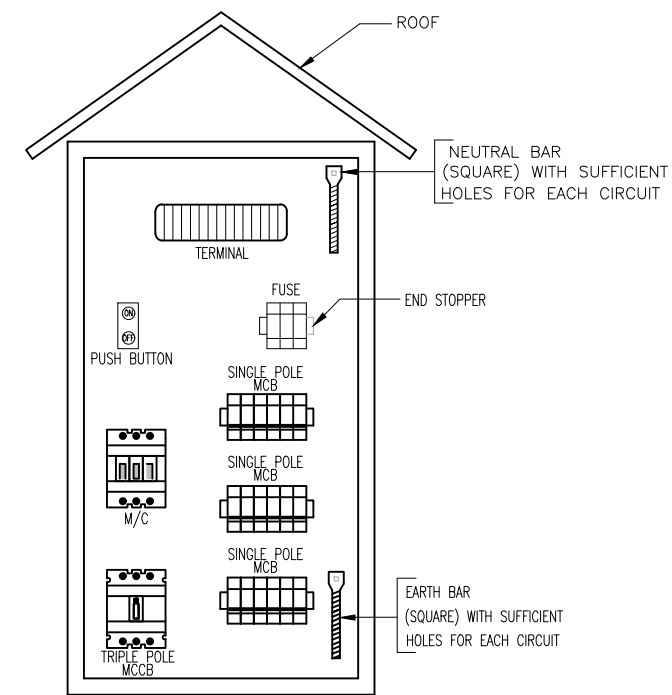
FEEDER PILLAR (FRONT VIEW) WITHOUT FRONT DOOR



FOUNDATION PLAN FOR FEEDER PILLAR



TWO PIECES BOTTOM PLATES FOR FEEDER PILLAR



INTERNAL ARRANGMENT OF LIGHT CONTROL PANEL FOR EXTERNAL LIGHTS

CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

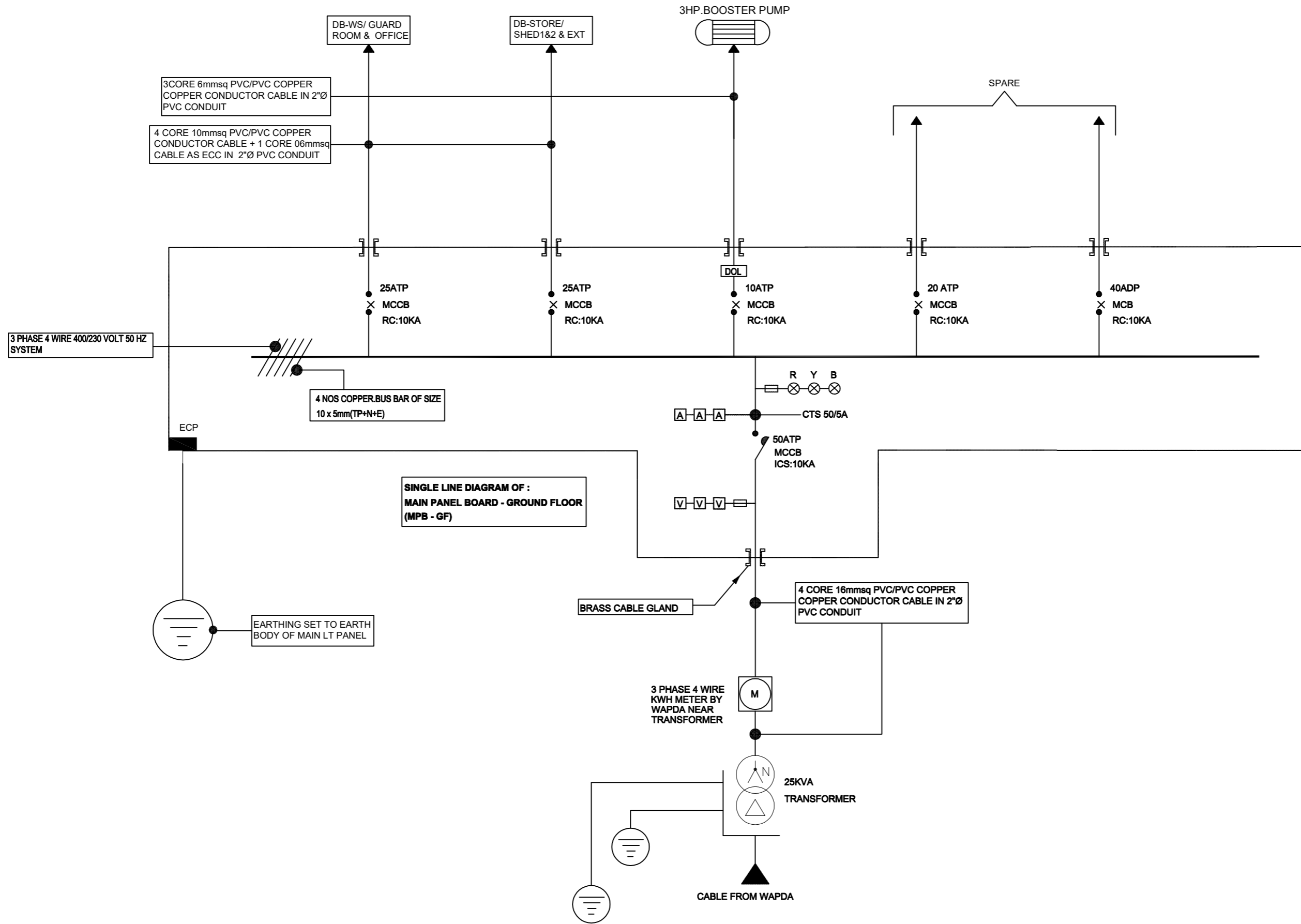
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PROJECT:  
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 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB. 284

DRAWING TITLE:  
**MISCELLANEOUS DETAIL-02**

DRAWN BY:  
 FATIMA ZAHRA  
 CHECKED BY:  
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 DATE:  
 JUNE, 2022

DRAWING NO:  
**E-09**  
 SCALE:  
 UNIT=FEET  
 1"=80'  
 SHEET:  
 01 OF 01  
 JOB NO:  
 488-01



CLIENT:  
 **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**

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PROJECT:  
**PUNJAB CITIES PROGRAM (PCP)**  
 DETAILED DESIGN OF INFRASTRUCTURE  
 SUB-PROJECTS AND RESIDENTS SUPERVISION IN  
 16 CITIES OF PUNJAB.

DRAWING TITLE:  
**DETAIL OF MAIN PANEL BOARD  
 PARKING SHED  
 KAMALIA**

REV.	DATE	DESCRIPTION
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DRAWN BY:  
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 SCALE:  
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