

# Bhopal Smart City Development Corporation Limited



## REQUEST FOR PROPOSAL

(Tender No. MPBSCDCL/TENDER NO -18)

**2017**

### **“RESTORATION AND REDEVELOPMENT OF SADAR MANZIL” (PHASE-2)**

Estimated Cost : Rs. 9,35,09,387/-

Cost of Tender Document

(Should be SUBMITTED ONLINE) : Rs. 20,000/-

Prepared by

Approved by

Recommended by

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**SECTION-1**  
**NOTICE INVITING TENDER**

## Bhopal Smart City Development Corporation Limited

### **NOTICE INVITING e-TENDER (NIT)**

BSCDCL invites online percentage rate /item rate tender as per schedule as under:

Tendering Document No.	:	BSCDCL/ 18
Name of the Work	:	<b>RESTORATION AND REDEVELOPMENT OF SADAR MANZIL (PHASE-2)</b>
Brief Scope of Work		Restoration, Redevelopment, Conservation, Retrofitting in existing building.
Estimated Cost	:	Rs. 9,35,09,387/- (Nine Crore Thirty Five Lakhs Nine thousand Three Hundred Eighty Seven only)
Period of Completion	:	12 Months
Earnest Money Deposit	:	Rs. 9,35,093/- (Nine Lakhs Thirty five thousand ninety three only)
Non-refundable cost of e- Tender Document	:	20,000/- (Twenty thousand only)
Purchase of Tender Start Date	:	16/03/2017 by 17.30 Hrs
Purchase of Tender End Date	:	10/04/2017 by 15.00 Hrs
Last date & time of submission of Online Tender	:	11/04/2017 by 17.30 Hrs
Period during which hard copy of the documents as per NIT shall be submitted.(With all technical credentials)	:	12/04/2017 by 17.00 Hrs
Date & Time of Opening of technical Tender	:	13/04/2017 by 11.00 Hrs
Date & Time of Opening of Financial Tender	:	Will be intimated later separately to qualified bidders.
Validity of offer		90 days from the date of opening of price bid.
Pre-Tender Meeting & Venue		28/03/2017 at 15.00 Hrs. At BSCDCL, Bhopal Office

The tender document can be downloaded from [www.mpeproc.gov.in](http://www.mpeproc.gov.in) “Corrigendum, if any, would appear only on the [www.mpeproc.gov.in](http://www.mpeproc.gov.in) web site and not to be published in any News Paper”.

The intending tenderer must read the terms and conditions of BSCDCL carefully. He should only submit his tender if he considers himself eligible and he is in possession of all the documents required.

2.0(A) Information and Instructions for Tenderers posted on Website(s) shall form part of Tender Document.

The Tender Document as uploaded can be viewed and downloaded free of cost by anyone including intending tenderer. But the tender can only be submitted after uploading the mandatory scanned documents such as

a) Proof of e-payment towards cost of tender document,

b) Proof of deposit of e-Tender Processing Fee,

c) Proof of online payment through e-portal [www.mpeproc.gov.in](http://www.mpeproc.gov.in)/ Bank Guarantee of any Nationalized or Commercial Scheduled Bank against in favor CEO, BSCDCL of EMD& All other documents shall be as per Notice Inviting e-tender.

The tenderers are required to quote strictly as per terms and conditions, specifications, standards given in the tender documents and not to stipulate any deviations.

After submission of the tender the tenderer can re-submit revised tender any number of times but before last time and date of submission of tender as notified.

Contractor to upload scanned copies of all the documents including valid service tax registration/EPF registration/VAT registration/Sales Tax registration, PAN NO. as stipulated in the tender document.

If the contractor is found ineligible after opening of tenders, his tender shall become invalid and cost of tender document and processing fee shall not be refunded.

If any discrepancy is noticed between the documents as uploaded at the time of submission of tender and hard copies as submitted physically by the contractor the tender shall become invalid and cost of tender document and processing fee shall not be refunded.

Notwithstanding anything stated above, BSCDCL reserves the right to assess the capabilities and capacity of the tenderer to perform the contract, in the overall interest of BSCDCL. In case, tenderer’s capabilities and capacities are not found satisfactory, BSCDCL reserves the right to reject the tender.

**Certificate of Financial Turn Over:**

At the time of submission of tender, the tender shall upload Certificate from Chartered Accountant mentioning Financial Turnover of last 3 years or for the period as specified in the tender document and further details if required may be asked from the tenderer after opening of technical tenders. There is no need to upload entire voluminous balance sheet.



In case of Percentage Rate Tender, Contractor must ensure to quote single percentage rate. Quote should be in percentage higher or below on the SOR Rates the same is to quoted in the form of decimal only. For example if contractor wants to quote 5 percent higher then he have to quote 1.05 and if he wants to quote 5 [percent below he have to quote 0.95 in given column of financial bid sheet.

In case of Item Rate Tender, price shall be entered against each item in the Bill of Quantities / Schedule of Quantities. The cost of item against which the contractor has failed to enter a rate or price shall be deemed to be covered by rates and prices of other items in Bill of Quantities / Schedule of Quantities and no payment shall be made for the quantities executed for items against which rate has not been quoted by the contractor.(For Non-SOR items)

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is

left blank and no rate is quoted by the tenderer, rate of such item shall be treated as "0" (ZERO).

The tenderer if required may submit queries in writing on E-mail Id.

**[smartcitycell@bmconline.gov.in](mailto:smartcitycell@bmconline.gov.in) before 28.03.2017 up to 12.00 Noon.**

**MEMORANDUM**

Sl. No.	Description	Cl. No. of NIT/ITT/Clauses of Contract (CC)	Values/Description to be Applicable for Relevant Clause (S)
1)	Name of Work		<b>RESTORATION AND REDEVELOPMENT OF SADAR MANZIL (PHASE-2)</b>
2)	Client/Owner		
3)	Type of Tender		Online percentage rate /Item rate
4)	Earnest Money Deposit		Rs. 9,35,093/- (Nine Lakhs Thirty five thousand ninety three only)
5)	Estimated Cost		Rs. 9,35,09,387/-(Nine Crore Thirty Five Lakhs Nine thousand Three Hundred Eighty Seven only/-
6)	Time allowed for Completion of Work		12 Months including Rainy season
7)	Mobilization Advance		<b>10%</b> of contract value
8)	Method of Selection		QCBS (60% Technical and 40% Financial)
9)	Interest Rate of Mobilization Advance		Simple Interest Rate of 10 % Percent only) (Per Annum)
10)	Schedule of rates applicable		Civil Works: UADD, PWD, NON SOR Electrical work : UADD, PWD, NON SOR
11)	Validity of Tender		90 (Ninety) Days
12)	Performance Guarantee		5.00 % (Five Percent Only) of contract value within 30 days from the issue of Letter of Award
13)	Security Deposit/Retention Money		5.00% (Five Percent Only) of the gross value of each running bill.
14)	Time allowed for starting the work		The date of start of contract shall be reckoned from 10 days after the date of agreement.

15)	Deviation limit beyond which clause 6.2 & 6.3 except foundation.		Building work as per requirement	Annual repair & maintenance of buildings As per requirement	Road work as per requirement
			Note:-The Deviation Limit of Building Work shall also apply for combined works(Building and Road)		
16)	Deviation limit beyond which clause 6.2 & 6.3		Building work as per requirement	Annual repair & maintenance of buildings as per requirement	Road work as per requirement
			Note:-The Deviation Limit of Building Work shall also apply for combined works (Building and Road)		

**ELIGIBILITY CRITERIA FOR BIDDER:**

**1. Qualification and Award Criteria for Contractor**

A single-stage procedure shall be adopted in evaluating the proposals. For consortiums / Joint Ventures, the combined qualification and experience of all the members will be considered. Bidder(s) qualifying in technical proposal will be eligible for financial evaluation.

**1.1. Prequalification Criteria of the Bidder(s)**

The Tenderer shall meet the Qualification Criteria specified in Section 1.0 as a Single firm entirely on its own without forming JV/Consortium for civil works. Only JV with Art Restoration contractor or additional electrical sub-contractor is permitted. In case of JV, the lead Contractor should fulfil all the eligibility criteria listed in para 1.2.

The Client/ their DPR consultant reserves the right to visit previously executed sites (submitted by Contractor as part of Experience) that conform to the above criteria and assess the quality and finish of the same to prequalify the contractor. The Client / their DPR consultants reserve the right to conduct reference checks on the documents/ work detail submitted by the contractor in 'Technical Bid' to ensure that they have the ability to deliver on quality, timeliness and site management and co-ordination. The Client / DPR consultants may disqualify the contractor if any discrepancy is found during the assessment.

**1.2 Technical Pre-Qualification for Heritage Experience:**

1.2.1 Before evaluation of the Technical Proposals, Bidder(s) are expected to meet the pre-qualification criteria, which would be a part of the Technical Consistence. Proposal Annexure III. Bidder(s) failing to meet these criteria

or not submitting requisite proof for supporting pre-qualification criteria are liable to be rejected at the Technical Proposal level. The Bidder(s) should have the requisite ability to follow the designs and drawings to execute the work, ability to manage complex situations and to effectively coordinate the work with the concerned offices/ officers of the department.

1.2.2 The Contracting Firm should be mainly engaged in restoration works of historic buildings, and should have worked on **at least 3 projects** of heritage building conservation in the **last 3 years**. Bidder(s) failing to meet these criteria or not submitting requisite proof for supporting pre-qualification criteria are liable to be rejected at the Technical Proposal level. The interested parties should have academic, technical and financial capabilities on the lines, mentioned below:

1.2.3 **Experience –**

The Bidder(s) should have required experience in executing architectural conservation works similar in nature to the Project applied for. Minimum experience **of 3 years (Organization) or Minimum Experience of the Company Head/Technical lead to have an individual experience of 5 years in field of Heritage Conservation Projects.**

At least one heritage building (declared by state / central government of any Grade) including following works:

- a. Structural Conservation and Roof Repairs
- b. Lime Plaster Works
- c. Door and Window Restoration
- d. Lakhori/ traditional brick masonry works

1.2.4 **Domain Expertise –**

Contractors should have skilled team of craftsmen with past experience in lime plasters, structural and architectural and interior conservation and should have worked on conservation of listed heritage buildings/protected monuments. The Contractor should have on his payroll a Site-supervisor with the requisite ability to follow the designs and drawings to execute the work, ability to manage complex situations and to effectively coordinate the work with the concerned offices/ officers of the department as per details given below:-

1.2.4.1 **Requirement of Domain / Technical Expert (s) in the panel of the bidder(s)**

Sl. No.	Discipline Designation	Minimum Qualification of Technical Representative	Minimum Experience Number
1.	Project Manager	Engineer/Architect with 3 years' experience in working on Heritage Conservation sites	3 yrs
2.	Site-in-charge	Supervisor with experience in working on Heritage Conservation sites	5 yrs
3	Craftsman	Domain Expert with experience in their respective crafts	5 yrs

The Bidder shall provide details of the Domain / technical experts a per Annexure VI Engagement of the proposed personnel shall be subject to approval from the Department of culture. In case such approval is not granted for a certain domain expert, the Bidder shall be required to provide a replacement with equivalent or better qualifications, abilities and relevant experience.

- 1.2.5 All the Bidder(s) / consortium members should be an Indian or an organization registered in India – Copy of Certificate of Incorporation/ PAN Card. Any other relevant document (in case of individuals, partnerships & consortium) to be attached. (As per Annexure I) (P-21).
- 1.2.6 Bidder(s) should be operating for the **last 3 years** (in case of Consortium, at least one of the members should be operating for the last 5 years) - Certificate of Incorporation / PAN Card. (Reference as per Annexure I) (P-21).
- 1.2.7 Bidder(s) should have worked with any Central/State/PSU agency and should have completed atleast one conservation project with such agency.
- 1.2.8 Bidder should have received at least One work order of minimum Rs. One Crore from either of the agencies, Archaeological Survey of India or Directorate / Department of Archaeology (any State) in past three years.
- 1.2.9 Bidder(s) are required to declare their turnover for the last 3 years (FY2013-14, FY2014-15 and FY2015-16) - Audited Profit/ Loss Statement and Balance Sheet and details as per Annexure II; if the Bidder(s) is a Consortium: Combined Average Annual Turnover (Last 3 years) should be declared against this criterion. (As per Annexure II).
- 1.2.10 The Bidder(s) should attach copy of Muster Roll of employed craftsmen and/or consent letters associated experts in the field of architectural conservation.
- 1.2.11 Satisfactorily completed, as a prime Successful bidder(s), at least one similar work of value not less than 80% of estimated value of contract;

The information required to be submitted in the Pre Qualification for the Project should be as per format provided in Annexure I.

### **1.3 Qualification Criteria**

#### **1.3.1 Evaluation of Technical Proposal**

After checking responsiveness of the Technical proposal in terms of having provided the requisite data, certificate of incorporation/ registration, relevant experience documents and information etc, authorization letter, earnest money, the Technical Proposals shall be evaluated as per point system noted below. A proposal shall be rejected at this stage if it does not respond to the important aspects of EOI and it fails to achieve minimum technical score indicated in evaluation criteria:

Sl. No	List of Statements	Eligibility	Max. Mark
1	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on conservation specific works (work order) of a similar nature and estimated cost in last 3 years Minimum Pre-qualification requirement: <b>80%</b> of contract value in <b>ONE PROJECT</b> OR <b>50%</b> of Contract Value in <b>TWO PROJECTS</b> OR <b>40%</b> of Contract Value in <b>THREE PROJECTS</b>	At least 1 satisfactorily completed assignment required for eligibility; <b>Maximum projects for consideration of evaluation: 03</b>	15 (8+4+3)
2	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Structural Conservation Work on Dome, Vaults and Arches, using traditional materials & lime mortars, in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; <b>Maximum projects: 03</b>	15 (8+4+3)
3	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Wood work (door, windows, purlins, beams), in historic monuments having work value of Rs. 25 lakhs in last 3 years	At least 1 satisfactorily completed assignment; <b>Maximum projects: 03</b>	10 (6+2+2)
4.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Lime Plaster & Renders, in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; <b>Maximum projects: 03</b>	10 (6+2+2)
5.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Decorative works / works involving high level of craftsmanship, like Kara (lime punning), Marble works, Stucco work, Stone / lime Jali work etc. in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; <b>Maximum projects: 03</b>	10 (6+2+2)
6.	Experience of Roofing works (including water proofing works) using traditional materials like lime concrete in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; <b>Maximum projects: 03</b>	10 (6+2+2)
7.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Internal Electrification work in historic monuments.	At least 1 satisfactorily completed assignment;	15 (8+4+3)

		<b>Maximum projects: 03</b>	
8.	Domain/ Technical Expert (s) in the panel of the agency(s) & quality of work undertaken by the contractor in previous projects. [As per Annexure IV]		8
9.	Detail of major items of construction support equipment's / machinery etc. including like Steel scaffolding, available with contractor, and will be made available in requisite quantity on site during implementation of work. [As per Annexure V]		7
<b>Total</b>			<b>100</b>

The Maximum points that can be scored in Technical Evaluation is **100**  
The Minimum technical score required to qualify for the Financial Proposal Evaluation is: **60 points.**  
**All relevant documents (self-attested) to be submitted.**

#### **1.4 Evaluation of Financial Proposal**

**1.4.1** After the evaluation of technical proposal is completed, the department may notify those Bidder(s) who have qualified. Financial Proposals of non-responsive bids will be returned unopened after completing the selection process. The department shall notify the Bidder(s) selected by the above process, indicating the date and time for opening the Financial Proposals. The Financial Proposals (Annexure VIII) shall be opened publicly in the presence of the Bidder(s) or their representatives who choose to attend. The quoted amount shall be evaluated, ranked, read and recorded.

**1.4.2** The Financial Proposal of each successful Bidder(s) will be assigned a financial score. For financial evaluation, the total cost indicated in the Financial Proposal will be considered.

**1.4.3** The Authority will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services. Omissions, if any, in costing any item shall not entitle the firm to be compensated and the liability to fulfill its obligations as per the TOR within the total quoted price shall be that of the Bidder(s). The lowest financial proposal (FM) will be given a financial score (SF) of 100 points. The financial scores of other proposals will be computed as follows:

$$SF = 100 \times FM/F$$

(F = amount of Financial Proposal of the Bidder(s))

**1.4.4** The Selected Bidder(s) shall be the First Ranked Bidder(s) (having the highest score)

**1.4.5** Proposals will be finally ranked in accordance with their combined technical (St) and financial (Sf) scores:

$$S = St \times Tw + Sf \times Fw;$$

Where S is the combined score, and Tw and Fw are weights assigned to Technical Proposal and Financial Proposal that shall be 0.60:0.40.

**1.4.6** The Bidder(s) achieving the highest combined technical and financial score shall be considered to be the successful Bidder(s) (the “Successful Bidder(s)”).

**1.4.7** The L1 Bidder(s) shall be invited for acceptance of the Letter of Intent.

**1.5**            **AWARD OF CONTRACT**

**1.5.1**            Prior to the expiration period of validity of Proposal, Client shall notify the successful Bidder(s) the result arrived at as per the Evaluation.

**1.5.2**            Within (10) Ten days from the date of issue of the Letter of Intent (LOI), the successful Bidder(s) shall accept the LOI and return the same to the Client.

**1.5.3**            After acceptance of LOI, the successful Bidder(s) shall furnish performance Bank guarantee for a value of 5% of the contract value within 30 Days of issue of LOI

**1.5.4**            The successful Bidder(s) shall execute the Execution Agreement within (15) Fifteen Days of acceptance of LOI after submission of performance guarantee.

**1.5.5**            Commencement of Assignment: The firm shall begin carrying out the services from the date of submission of Performance Bank Guarantee and release of mobilization advance.

**1.5.6**            In event of the Cumulative evaluation score of the technically sound bidder is lower than the required 60 marks limit, the Department reserves the right to award part of project (Phase I of Tender) to the suitable bidder consummate with his Technical competence. The other phases of the project may be added to the awarded tender (to be given as extension of contract with successful bidder) later if his performance in Phase I is deemed satisfactory and on time OR Phase II will be tendered again open for bidding to selected bidders from prequalification list.

**1.5.7**            In case the Financial Proposal of a successful bidder under Technical prequalification is deemed as seriously unbalanced or front loading in the opinion of the Department, the bidder shall be asked by the Department to produce detailed price analysis for any or all of the BOQ Items, to demonstrate soundness or errors in the tender. In case of disagreement, the next bidder (qualifying as second highest according to combined Technical and Financial Score) shall be considered for award of tender.



## **Annexure I**

### **BIDDER(S) PROFILE**

1	Name of Bidder(s) with full address <sup>1</sup>						
2	Full address of the Bidder(s) <sup>2</sup>						
3	Constitution of the Bidder(s)	Association/ consortium of individual(s) / partnerships/ companies/ domain expert(s) of archaeology / art / history / museum background.					
4	Names and address of the association/ consortium members (if applicable)	Lead Firm		Member 1		Member 1	
		Name:		Name:		Name:	
		Address:		Address:		Address:	
5	Registration No. of the Bidder(s) (copies of Incorporation Certificate / Partnership Deed of all Consortium members to be enclosed)	Name of Bidder(s)/ Partners/ Consortium members		Registration No. (if applicable)		Date of Incorporation	
6	Copy of PAN Card of the Bidder(s) (copies of PAN Cards of all Consortium members to be enclosed)	Name of Bidder(s)/ Partners/ Consortium members		PAN Number			
7	Name and address of the person holding the Power of Attorney						
8	Correspondence Tel. No.						
9	Correspondence Fax No.						
10	Correspondence Email						

<sup>1</sup> The name of the Consortium, if so desired and backed by document will be valid

<sup>2</sup> The address of one of the Consortium members can be mentioned , if so desired in the MOU

**Annexure II**

**FINANCIAL INFORMATION**

Audited Annual Accounts to be submitted, duly supported by copies of Balance Sheet, Profit & Loss account along with the Auditor's Report, Director's Report and Schedules for the last three years.

The Gross Annual Turnover of the Bidder(s) as submitted by the Bidder(s) (in case of the Partnership/ Joint Venture/ Consortium – the combined Turnover of the members) to the Income Tax Department to be duly certified by the Chartered Accountant:  
(Amt. In Rupees)

Financial Year ---->	<b>2013-2014</b>	<b>2014-2015</b>	<b>2015-2016</b>
<b>Gross Annual Turnover of the Bidder(s) / Lead organization</b>			
<b>Gross Annual Turnover of the Member 1 of the Joint-venture/ Consortium</b>			
<b>Gross Annual Turnover of the Member 2 of the Joint-venture/ Consortium</b>			
<b>Total</b>			

Signature of Chartered Accountant with seal

Signature of Authorized Signatory of Bidder(s) (s)

|

### **Annexure III**

#### **TECHNICAL COMPETENCE**

1. A supporting cover document shall be provided listing all projects supplied in the following table for Evaluation of Technical Competence containing a brief one paragraph writeup about the project. This should describe the project in detail including- the nature of works undertaken under contract, quantity and specification of works undertaken in the project (like lime plaster, brickwork in lime, restoration works, stitching of structural cracks, lime concrete, stonework, etc.). If available, these work descriptions should preferably be supported with photographs showing executed works (before/after conservation). Projects with photographs to be given preference.

##### **1.1 Format for Cover Document:**

Name of Project:

Scope of work:

Construction experience key activities:

		Quantity completed	Specification
a.	Lime Plaster & render		
b.	Stitching of structural cracks		
c.	Lakhori / traditional Brickwork in lime mortar		
d.	De-vegetation from monuments		
e.	Lime concrete flooring/roof/terracing		
f.	Decorative works like Jali, Kara etc.		
g.	Restoration of wood work (door windows)		

1. Work Experience

Sl. No	List of Statements	Eligibility	Value of Work (in Rs.)
1	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on conservation specific works (work order) of a similar nature and estimated cost in last 3 years Minimum Pre-qualification requirement: 80% of contract value in ONE PROJECT OR 50% of Contract Value in TWO PROJECTS OR 40% of Contract Value in THREE PROJECTS	At least 1 satisfactorily completed assignment required for eligibility; Maximum projects for consideration of evaluation: 03	
2	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Structural Conservation Work on Dome, Vaults and Arches, using traditional materials & lime mortars, in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; Maximum projects: 03	
3	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Wood work (door, windows, purlins, beams), in historic monuments having work value of Rs. 25 lakhs in last 3 years	At least 1 satisfactorily completed assignment; Maximum projects: 03	
4.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Lime Plaster & Renders, in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; Maximum projects: 03	
5.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Decorative works / works involving high level of craftsmanship, like Kara (lime punning), Marble works, Stucco work, Stone / lime Jali work etc. in historic monuments having work value of Rs. 10 lakhs in last 3 years	At least 1 satisfactorily completed assignment; Maximum projects: 03	
6.	Experience of Roofing works (including water proofing works) using traditional materials like lime concrete in historic monuments having work value of Rs. 10 lakhs in last 3 years [as per Annexure VI]	At least 1 satisfactorily completed assignment; Maximum projects: 03	

7.	Experience of Bidder(s) (either under direct contract/ sub-contract) in at least 1 assignment on Internal Electrification work in historic monuments.	At least 1 satisfactorily completed assignment; Maximum projects: 03	
8.	Domain/ Technical Expert (s) in the panel of the agency(s) & quality of work undertaken by the contractor in previous projects. [As per Annexure IV]		
9.	Detail of major items of construction support equipment's / machinery etc. including like Steel scaffolding, available with contractor, and will be made available in requisite quantity on site during implementation of work. [As per Annexure V]		
<b>Total</b>			

The Maximum points that can be scored in Technical Evaluation is **100**

The Minimum technical score required to qualify for the Financial Proposal Evaluation is: **60 points**

- Information to be provided for each project (column 2) to include: Name of building, location of project, Client & project Architect.
- The project value (Column 3) to specify cost of project (with mention of whether the cost is including or excluding material).
- Only the specified Maximum number of project information should be provided for marking.
- Since the monuments can range from simple to complex in terms of their grading, the selection will be based on the nature of the projects handled. The more complex monuments handled by a Bidder(s) can get additional weightage for him/her.
- Absence of copies of Employment Letter/ Contract Letter/Work Orders/ MOUs shall lead to non-consideration of experience.

**Note:** Please attach the supporting documents (Recent Letter or Client in case of ongoing projects, Completion Certificate in case of completed projects) after this Annexure in the same order as listed in the table.

Signature of Authorized Signatory of Bidder(s) (s)

**Annexure IV**

**Requirement of Domain/ Technical Expert (s) in the panel of the agency(s)  
Maximum marks-10**

<b>Sl. No.</b>	<b>Discipline Designation</b>	<b>Minimum Qualification of Technical Representative</b>	<b>Minimum Experience</b>
1.	Site-in-charge (Compulsory one)	Domain Expert with Bachelor degree in Engineering/Architecture	03 yrs
	Name:	Qualification:  Years of Experience:	
2.	Craftsman	Domain Expert with experience in their respective fields of conservation work and specialization in traditional building crafts	Added advantage for teams with craftsmen
	Craftsman 01: Name	Expertise: Area of Origin: Years of Experience	
	Craftsman 02: Name	Expertise: Area of Origin: Years of Experience	
	Craftsman 03: Name	Expertise: Area of Origin: Years of Experience	

**Note:** Please attach the supporting documents (Self attested copies of work experience, letters of project completion, employment, etc.) after this Annexure in the same order as listed in the table.

Signature of Authorized Signatory of Bidder(s) (s)

**Annexure V**

**TECHNICAL COMPETENCE**

**Schedule- 'F'**      **Detail of major items of construction machinery to be available on site during implementation of work.**  
**Maximum marks-10**

Sn.	Particulars	Make	Year of Manufacture	Nos.	Whether owned or confirmed lease	Marks
1.	Traditional Chakki with heavy stone wheel					
2.	Tractor for chakki					
3.	Water storage tanks					
4.	H-frame Scaffolding (metal cup-locked system)					
5.	Water tanker					
6.	Pressure grouting machine for grouting					
7.						
8.						

Signature of Successful bidder(s)

**Evaluation Criteria:** Maximum Marks of 10

**SECTION-2**

**INSTRUCTIONS TO TENDERER**



# Instruction to Tenderer (ITT)

## **A. GENERAL INSTRUCTIONS:**

2.1. General terms of Bidding-

2.1.1 No Bidder shall submit more than one BID for the Project.

2.1.2 The Feasibility Report / Preliminary Project Report of the Project has been assessed however the Bidders are expected to carry out their own surveys, investigations and other Preliminary examination of the Project before submitting their Bids. Nothing contained in the attached drawings/BOQ shall be binding on the BSCDCL nor confer any right on the Bidders, and the BSCDCL shall have no liability whatsoever in relation to or arising out of any or all contents of TENDER.

2.1.3 Notwithstanding anything to the contrary contained in this RFP, the Preliminary terms specified in the draft Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Agreement.

2.1.4 The BID shall be furnished in the format exactly as per Appendix-I i.e. Technical Bid as per Appendix IA and Financial Bid as per Appendix IB. BID amount shall be indicated clearly in both figures and words, in Indian Rupees in prescribed format of Financial Bid and it will be signed by the Bidder's authorized signatory. In the event of any difference between figures and words, the amount indicated in words shall be taken into account.

2.1.5 The Bidder shall deposit a BID Security (EMD) of Rs. 9,35,093/- (Nine Lakhs Thirty five thousand ninety three only) in accordance with the provisions of this RFP. The Bidder has to provide the BID Security (EMD) through online payment or in the form of a Bank Guarantee acceptable to the BSCDCL, as per format at Appendix-II.

2.1.6 The validity period of the Bank Guarantee, shall not be less than 180 (one hundred and eighty) days from the BID Due Date, inclusive of a claim period of 60 (Sixty) days, and may be extended as may be mutually agreed between the BSCDCL and the Bidder.

2.1.7 The BID shall be summarily rejected if it is not accompanied by the BID Security. The BID Security shall be refundable no later than 150 (one hundred and fifty) days from the BID Due Date except in the case of the Selected Bidder whose BID Security shall be retained till it has provided a Performance Security under the Agreement.

2.1.8 The Bidder should submit a Power of Attorney as per the format at Appendix-III, Authorizing the signatory of the BID to commit the Bidder.

2.1.9 Any condition or qualification or any other stipulation contained in the BID shall render the BID liable to rejection as a non-responsive BID.

2.1.10 The BID and all communications in relation to or concerning the Bidding Documents and the BID shall be in English language.

2.1.11 The documents including this RFP and all attached documents, provided by the BSCDCL are and shall remain or become the property of the BSCDCL and are Transmitted to the Bidders solely for the purpose of preparation and the submission of abide in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their BID. The provisions of this Clause.

2.1.12 shall also apply mutatis mutandis to BIDs and all other documents submitted by the Bidders, and the BSCDCL will not return to the Bidders any BID, document or any information provided along therewith.

2.1.13 This RFP is not transferable.

2.1.14 any award of Project pursuant to this RFP shall be subject to the terms of Bidding

Documents and also fulfilling the criterion as mentioned in clause 2.1.17.

2.1.16 while bidding is open to persons from any country, the following provisions shall apply then the Eligibility of such Bidder shall be subject to approval of the BSCDCL from national security and public interest perspective. The decision of the BSCDCL in this behalf shall be final and conclusive and binding on the Bidder. The holding or acquisition of equity or control, as above, shall include direct or indirect holding/ acquisition, including by transfer, of the direct or indirect legal or beneficial ownership or control, by persons acting for themselves or in concert and in determining such holding or acquisition, the BSCDCL shall be guided by the principles, precedents and definitions contained in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 1997, or any substitute thereof, as inforce on the date of such acquisition. The Bidder shall promptly inform the BSCDCL of any change in the shareholding, as above, and failure to do so shall render the Bidder liable for disqualification from the Bidding Process.

2.1.17 Notwithstanding anything to the contrary contained herein, in the event that the Bid Due Date falls within three months of the closing of the latest financial year of a Bidder, it shall ignore such financial year for the purposes of its Bid and furnish all its information and certification with reference to the 5 (five) years or 1 (one) year, as the case may be, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the Purposes of a Bid hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

2.1.18 Any entity which has been barred by GOI or Govt. of Madhya Pradesh, MP DISCOM for the works of expressways, National highways, ISC and EI works, and the bar subsists as on the Bid Due Date, would not be eligible to submit the BID.

2.1.19 The BSCDCL reserves the right to reject an otherwise eligible bidder on the basis of the information provided under clause 2.1.19. The decision of the BSCDCL in this case shall be final.

## 2.2 Eligibility and qualification requirements of Bidder

2.2.1 For determining the eligibility of Bidder the following shall apply:

(a) The Bidder may be a single entity or Consortium, coming together to implement the Project. However, no Bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bidder. The term Bidder used herein would apply to both a single entity and a Consortium.

(b) Bidder may be a natural person, private entity, or any combination of them with a formal intent to enter into a Consortium agreement or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions.

(c) An Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified and liable for forfeiture of the BID Security or Performance Security as the case may be. A Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

(d) A Bidder shall be liable for disqualification and forfeiture of BID Security, if any legal, financial or technical adviser of the BSCDCL in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner formatters related to or incidental to such Project during the Bidding Process or subsequent to the (i) issue of the LOA or (ii) execution of the Agreement. In the even though such adviser is engaged by the selected Bidder or Contractor, as the case may be, after issue of the LOA or execution of the Agreement for matters related or incident alto the project, then notwithstanding anything to the contrary contained herein or in the13LOA or the Agreement and without Prejudice to any other right or remedy or the BSCDCL, including the forfeiture and appropriation of the BID Security or Performance Security, as the case may be, which the BSCDCL may have there under or otherwise, the LOA or the Agreement, as the case may be, shall be liable to be terminated without the BSCDCL being liable in any manner whatsoever to the Selected Bidder or Contractor for the same. For the avoidance or doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.

### Other Instructions:-

On line percentage rate /item rate tenders on behalf of Owner/Client are invited for the work of Development Works For Market Complex Under Smart City Road At Shyamla Hills, Bhopal for BSCDCL at Bhopal city.

The pre-qualification / enlistment of the contractors should be valid on the last date of submission of tenders. In case the last date of submission of tender is extended, the pre-qualification of contractor should be valid on the original date of submission of tenders.

The work is estimated to cost Rs. 9,35,09,387/-(Nine Crore Thirty Five Lakhs Nine thousand Three Hundred Eighty Seven only/-

The tender document as uploaded can be seen on website [www.mpeproc.gov.in](http://www.mpeproc.gov.in) and can be downloaded free of cost.

### Mode of Submission: Earnest Money Deposit

Earnest Money Deposit of amount as mentioned in “NIT/ Memorandum (Annexure-I)” required to be submitted along with the tender shall be in the form of Demand Draft payable at place as mentioned in NIT in favour of CEO, BSCDCL from any Scheduled bank or Bank Guarantee from any Nationalized or all Commercial scheduled banks in the enclosed format. The EMD shall be valid for minimum period of 150 (One Hundred Fifty) days from last day of submission of Tender. **The EMD shall be scanned and uploaded to the e-Tendering website within the period of tender submission and original should be deposited in office of BSCDCL**

**The EMD of all unsuccessful tenderers will be returned within thirty (30) days of the Award of the contract to successful tenderer or after the receipt of their BGs verified from the Zonal office of the issuing Bank, whichever is later. No interest will be payable by the BSCDCL on the said amount covered under EMD/Any other Security Deposit.**

Interested contractor who wish to participate in the tender has also to make following payments in the form of Demand Draft/Pay Order or Banker's Cheque of any Scheduled Bank and to be scanned and uploaded to the e-Tendering website within the period of tender submission:

Cost of Tender Document – [Rs. 20,000/-](#) To be submit online only/-

**\*X% shall be as prevailing on the date of NIT e-Tender Processing Fee – As applicable for MPEPROC portal.**

Demand Draft or Pay Order Banker's Cheque or Bank Guarantee against EMD, Cost of Tender Document and, e-Tender Processing Fee online payment receipt accordingly, shall be placed in single sealed envelope superscripted as “Earnest Money, Cost of Tender Document and Cost of e-Tender Processing Fee” with name of work and due date of opening of the tender also mentioned thereon.

Copy of pre-qualification/enlistment letter and certificate of work experience (if required) and other documents as specified in the tender shall be scanned and uploaded to the e-Tendering website within the period of tender submission and certified copy of each shall be deposited in a separate envelope marked as "Other Documents".

Both the envelopes shall be placed in another envelope with due mention of Name of work, date & time of opening of tenders and to be submitted in the office of BSCDCL after last date & time of submission of tender.

Online technical tender documents submitted by intending tenderers shall be opened only of those tenderers, whose Earnest Money Deposit, Cost of Tender Document and e-Tender Processing Fee and other documents placed in the envelope are found in order. The Price tender of those tenderers whose documents found to be in order shall be opened. The date of opening of price tender shall be informed to the tenderer.

The tender submitted shall become invalid if:

- ❖ The tenderer is found ineligible.
- ❖ The tenderer does not upload all the documents (including service tax registration/VAT registration/Sales Tax Registration) as stipulated in the tender document.

If any discrepancy is noticed between the documents as uploaded at the time of submission of tender and hard copies as submitted physically in the office of tender opening authority.

#### **VALIDITY OF TENDER**

The tender for the works shall remain open for acceptance for a period of Ninety (90) days from the date of opening of financial tender. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the BSCDCL, then the BSCDCL shall, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money as aforesaid. Further the tenderers shall not be allowed to participate in the retendering process of work.

#### **ACCEPTANCE OF TENDER**

BSCDCL reserves the right to reject any or all the tenders in part or full without assigning any reason whatsoever. BSCDCL does not bind itself to accept the lowest tender. The BSCDCL reserves the right to award the work to a single party or split the work amongst two or more parties as deemed necessary without assigning any reason thereof. The Contractor is bound to accept the part work as offered by BSCDCL after split up at the quoted/negotiated rates.

The tenders shall be strictly as per the conditions of contract. Tenders with any additional condition(s)/modifications shall be rejected.

The witnesses to the Tender/Contract Agreement shall be other than the tenderer/ tenderers competing for this work and must indicate full name, address, and status/occupation with dated signatures.

The acceptance of tender will rest with the BSCDCL who does not bind itself to accept the lowest tender and reserves to itself the right to reject any or all the tenders received without assigning any reason thereof. Tenders in which, any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.

On acceptance of tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from Engineer-in-Charge or its authorized representative shall be intimated by the contractor within 07 days of issue date of letter of Awards by BSCDCL.

The tenderer shall not be permitted to tender for works if his near relative is posted in the project office or concerned Zonal Office of the BSCDCL. The contractor shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any of the officers in BSCDCL. Any breach of this condition by the tenderer would render him liable to the withdrawal of the work awarded to him and forfeiture of Earnest Money and Security Deposit. This may also debar the contractor from tendering for future works under BSCDCL.

For the purpose of operation of this clause a near relative shall mean wife, husband, parents, grandparents, children, grandchildren, brothers, sisters, uncles, aunts, cousins and their corresponding in-laws.

The time of completion of the entire work, as contained in contract shall be as mentioned in "Memorandum - Annexure-I", which shall be reckoned from the 10<sup>th</sup> day after issue of the letter of Award by the BSCDCL.

Canvassing whether directly or indirectly, in connection with tenderers is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

The tender award, execution and completion of work shall be governed by tender documents consisting of (but not limited to) Letter of Award/Letter of work order, Bill of Quantities, Special Conditions of Contract, General Conditions of Contract, Specifications, Drawings. The tenderers shall be deemed to have gone through the various conditions including sub-soil water conditions, topography of the land, drainage and accessibility etc. or any other condition which in the opinion of contractor will affect his price/rates before quoting their rates. No claim whatsoever against the foregoing shall be entertained.

The drawings with the tender documents are Tender Drawing and are indicative only.

## **ADDENDA/ CORRIGENDA**

Addenda/Corrigenda to the tender documents may be issued prior to the date of submission of the tender to clarify or effect modification in specification and/or contract terms included in various tender documents. The tenderer shall suitably take into consideration such Addenda/Corrigenda while submitting his tender. The tenderer shall return such Addenda/ Corrigenda duly signed and stamped as confirmation of its receipt & acceptance and submit along with the tender document. All addenda/ Corrigenda shall be signed and stamped on each page by the tenderer and shall become part of the tender and contract documents.

## **SITE VISIT AND COLLECTING LOCAL INFORMATION**

Before tendering, the tenderers are advised to visit the site, its surroundings to assess and satisfy themselves about the local conditions such as the working and other constraints at site, approach roads to the site, availability of water & power supply, application of taxes, duties and levies as applicable & any other relevant information required by them to execute complete scope of work. The tenderer may obtain all necessary information as to risks, weather conditions, contingencies & other circumstances (insurgencies etc.) which may influence or affect their tender prices. Tenderer shall be deemed to have considered site conditions whether he has inspected it or not and to have satisfied himself in all respect before quoting his rates and no claim or extra charges whatsoever in this regard shall be entertained / payable by the BSCDCL at a later date.

## **ACCESS BY ROAD**

Contractor, if necessary, shall build temporary access roads to the actual site of construction for the works at his own cost to make the site accessible. The Contractor shall maintain the same in motorable condition at all the times as directed by Engineer-in-Charge at his own cost. The contractor shall be required to permit the use of any roads so constructed by him for vehicles of BSCDCL or any other agencies/ contractors who may be engaged on the project site, free of cost.

Non-availability of access roads or approach to site, for the use of the contractor shall in no case condone any delay in the execution of work nor be the cause for any claim for compensation.

## **HANDING OVER & CLEARING OF SITE**

The Contractor should note that area for construction may be made available in phases as per availability and in conjunction with pace of actual progress of work at site. The work may be required to be carried out in constrained situations. The work is to be carried out in such a way that the traffic, people movement, if any, is kept operative and nothing extra shall be payable to the contractor due to this phasing / sequencing of the work. The contractor is required to arrange the resources to complete the entire project within total stipulated time. Traffic diversion, if required, is to be done and maintained as per requirement of local traffic

police or/and as per specification, by the contractor at his own cost and the contractor shall not be entitled for any extra payment, whatsoever, in this regard.

The efforts will be made by the BSCDCL to handover the site to the Contractor free of encumbrances. However, in case of any delay in handing over of the site to the Contractor, the BSCDCL shall only consider suitable extension of time for the execution of the work. It should be clearly understood that the BSCDCL shall not consider any revision in contract price or any other compensation whatsoever viz. towards idleness of Contractor's labour, equipment etc.

Old structures on the proposed site, if required, shall be demolished by the contractor properly at his own cost unless and

otherwise mentioned elsewhere in the tender document. The useful material obtained from demolition of structures & services shall be the property of the owner/BSCDCL and these materials shall be stacked in workmanship like at the place specified by the Engineer-in-charge.

Necessary arrangement including its maintenance is to be made by the contractor for temporary diversion of flow of existing drain and road, as the case may be. The existing drain, road would be demolished, wherever required, with the progress of work under the scope of proposed project. The existing Road and Drain which are not in the alignment of the said project but are affected and/ or need to be demolished during execution for smooth progress of the project, shall be rehabilitated to its original status and condition (including black topping) by the contractor at his own cost. The cost to be incurred by contractor in this regards shall be deemed to be included in the quoted rates of the bill of quantity items and contractor shall not be entitled for any extra payment whatsoever in this regard.

The information about the public utilities (whether over ground or underground) like electrical/ telephone/ water supply lines, OFC Cables, open drain etc. is the responsibility of contractor to ascertain the utilities that are to be affected by the works through the site investigation.

The contractor shall be responsible to obtain necessary approval from the respective authorities for shifting/ re-alignment of existing public utilities. BSCDCL shall only assist the contractor for liasioning in obtaining the approval from the concerned authorities.

Any services affected by the works must be temporarily supported by the contractor who must also take all measures reasonably required by the various bodies to protect their services and property during the progress of works. It shall be deemed to be the part of the contract and no extra payment shall be made to the contractor for the same.



## **SCOPE OF WORK**

The scope of work covered in this tender shall be as per the Bill of Quantities, specifications, drawings, instructions, orders issued to the contractor from time to time during the pendency of work. The drawings for this work, which may be referred for tendering, provide general idea only about the work to be performed under the scope of this contract. These may not be the final drawings and may not indicate the full range of the work under the scope of this contract. The work will be executed according to the drawings to be released as "GOOD FOR CONSTRUCTION" from time to time by the Engineer-in-charge of BSCDCL and according to any additions/ modifications/ alterations/ deletions made from time to time, as required by any other drawings that would be issued to the contractor progressively during execution of work. It shall be the responsibility of the contractor to incorporate the changes that may be in this scope of work, envisaged at the time of tendering and as actually required to be executed.

The quantities of various items as entered in the "BILL OF QUANTITIES" are indicative only and may vary depending upon the actual requirement. The contractor shall be bound to carry out and complete the stipulated work irrespective of the variation in individual items specified in the bill of quantities. The variation of quantities will be governed as per clause No. 6.0 of contract.

## **APPROVAL OF TEMPORARY / ENABLING WORKS**

The setting and nature of all offices, huts, access road to the work areas and all other temporary works as may be required for the proper execution of the works shall be subject to the approval of the Engineer-in-charge. All the equipments, labour, material including cement, reinforcement and the structural steel required for the enabling/ temporary works associated with the entire Contract shall have to be arranged by the Contractor only. Nothing extra shall be paid to the Contractor on this account.

## **CLARIFICATION AFTER TENDER SUBMISSION**

Tenderer's attention is drawn to the fact that during the period, the tenders are under consideration, the tenderers are advised to refrain from contacting by any means, the BSCDCL and/or his employees/ representatives on matters related to the tender under consideration and that if necessary, BSCDCL will obtain clarifications in writing or as may be necessary. The tender evaluation and process of award of works is done by duly authorized Tender Scrutiny Committee and this committee is authorized to discuss and get clarification from the tenderers.

## **ORDER OF PRECEDENCE OF DOCUMENTS**

In case of difference, contradiction, discrepancy, with regard to conditions of contract, Specifications, Drawings, Bill of quantities etc. forming part of the contract, the following shall prevail in order of precedence.

Letter of Award, along with statement of agreed variations and its enclosures, if any.

Description of Bill of Quantity / Schedule of Quantities.

Special Condition of Contract.

Technical specifications (General, Additional and Technical Specification) as given in Tender documents.

General Conditions of Contract.

Drawings

CPWD/ MORTH specifications (as specified in Technical Specification of the Tender) update with correction slips issued up to last date of receipt of tenders.

Relevant B.I.S. Codes

## ACCEPTANCE OF TENDER CONDITIONS

From: (On the letter head of the company by the authorized officer having power of attorney)

BSCDCL Limited,

\_\_\_\_\_

\_\_\_\_\_

**Sub: Name of the work & NIT No.:**

Sir,

This has reference to above referred tender. I/We are pleased to submit our tender for the above work and I/We hereby unconditionally accept the tender conditions and tender documents in its entirety for the above work.

I/we are eligible to submit the tender for the subject tender and I/We are in possession of all the documents required.

I/We have viewed and read the terms and conditions of this GCC/SCC carefully. I/We have downloaded the following documents forming part of the tender document:

- a) Notice Inviting e-Tender. (pg-     to     pg-     )
- b) Quoting Sheet for Tenderer (pg-     to     pg-     )
- c) Instructions to Tenderers & General Conditions of Contract (Vol-     I/2013)  
:(pg-     to pg-     )
- d) Technical Specifications (Vol-II) (pg-     to     pg-     )
- e) Bill of Quantities (Vol-III) (pg-     to     pg-     )
- f) Tender Drawing (pg-     to pg-     )
- g) Acceptance of Tender Conditions (Annexure II)  
Corrigendum, if any (pg-     to pg-     )

I/we have uploaded the mandatory scanned documents such as cost of tender document, EMD, e-Tender Processing Fee and other documents as per Notice Inviting e-tender AND I/We agree to pay the cost of tender document, EMD, e-

Tender Processing Fee (only receipt/proof of online payment) and other documents in physical form in the form and manner as described in NIT/ITT.

Should this tender be accepted, I/We agree to abide by and fulfill all terms and conditions referred to above and as contained in tender documents elsewhere and in default thereof, to forfeit and pay BSCDCL, or its successors or its authorized nominees such sums of money as are stipulated in the notice inviting tenders and tender documents.

If I/we fail to commence the work within 10 days of the date of issue of Letter of Award and/or I/we fail to sign the agreement as per Clause 82 of Clauses of Contract and/or I/we fail to submit performance guarantee as per Clause 02 of Clauses of Contract, I/we agree that BSCDCL shall, without prejudice to any other right or remedy, be at liberty to cancel the Letter of Award and to forfeit the said earnest money as specified above.

Yours faithfully,  
(Signature of the tenderer with rubber stamp)

Dated

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**SECTION-3**

**CLAUSES OF CONTRACT**

## CLAUSES OF CONTRACT (CC)

### DEFINITIONS

The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of BSCDCL and the contractor, together with the documents referred to therein including these conditions, the specifications,

Designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

Bhopal Smart City Development Corporation Limited, hereinafter called 'BSCDCL' proposes to get the works executed as mentioned in the Contract on behalf of Owner/ Client as Implementing agency/Executing Agency.

- 1.2 In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-

**APPROVAL** means approved in writing including subsequent written confirmation of previous verbal approval.

**BILL OF QUANTITIES or SCHEDULE OF QUANTITIES** means the priced and completed Bill of Quantities or Schedule of Quantities forming part of the tender.

**CONTRACTOR** shall mean the individual, firm, LLP or company, whether in incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or LLP or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.

**CONTRACT VALUE** means the sum for which the tender is accepted as per the letter of Award.

**DRAWINGS** mean the drawings referred to in the contract document including modifications if any and such other drawings as may from time to time be furnished and/ or approved by BSCDCL.

**DATE OF COMMENCEMENT OF WORK:** The date of start of contract shall be reckoned from 10 days after the date of issue of letter of Award.

**ENGINEER-IN-CHARGE** means the Engineer of BSCDCL who shall supervise and be in-charge of the work.

**LANGUAGE:** All documents and correspondence in respect of this contract shall be in English Language.

- i) **“LETTER OF AWARD”** shall mean BSCDCL’s letter or notification conveying its acceptance of the tender subject to such conditions as may have been stated There in.

**MONTH** means English Calendar month 'Day' means a Calendar day of 24 Hr  
**BSCDCL** shall means Bhopal Smart City Development Corporation Limited, a company registered under the Indian Company Act, with its registered office at Near Natraj Petrol Pump, Sector A, Berkheda, Bhopal, Madhya Pradesh 462023 or its Administrative officers or its engineer or other employees authorized to deal with any matter with which these persons are concerned on its behalf.

**OWNER/ CLIENT** means the Government, Organization, Ministry, Department, Society, Cooperative, JV Entities (whether incorporated or unincorporated or registered as the case may be) etc. who has awarded the work/ project to BSCDCL and/ or appointed BSCDCL as Implementing / Executing Agency/ Project Manager and/ or for whom BSCDCL is acting as an agent and on whose behalf BSCDCL is entering into the contract and getting the work executed.

**SCHEDULE(s)** referred to in these conditions shall mean the standard schedule of rates of the government mentioned in the Memorandum (Annexure-I) with the amendments thereto issued up to the date of receipt of the tender.

- n) **SITE** means the lands and other places on, under, in or through Which the works are to be executed or carried out and any other lands or places provided by BSCDCL/client/owner or used for the purpose of the contract.
- o) **TENDER** means the Contractor's priced offer to BSCDCL for the execution and completion of the work and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Award or Award letter. The word TENDER is synonymous with Tender and the Word TENDER DOCUMENTS with "Tendering Documents" or "offer documents".

**WRITING** means any manuscript typed written or printed statement under or over signature and/or seal as the case may be.

**Works or Work** shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

The headings in the clauses/ conditions of tender documents are for convenience only and shall not be used for interpretation of the clause/ condition.

Words imparting the singular meaning only also include the plurals and vice versa where the context requires. Words importing persons or parties shall include firms and corporations and organizations having legal capacities.

**Excepted Risk** are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the BSCDCL or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to BSCDCL's faulty design of works.

**Market Rate** shall be the rate as decided by the Engineer-in-Charge on the basis of the prevailing cost of materials and labour at the site where the work is to be executed plus the percentage mentioned elsewhere in the tender document to cover, all overheads and profits.

#### **PERFORMANCE GUARANTEE:**

“Within 30 (Thirty) days from the date of issue of letter of Award or within such extended time as may be granted by BSCDCL in writing, the contractor shall submit to BSCDCL an irrevocable performance bank guarantee in the form appended, from any Nationalized Bank or all Commercial schedule bank equivalent to 5% (five per cent only) of the contract value for the due and proper execution of the Contract. The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of works gets extended, the contractor shall get the validity of Performance Guarantee extended to cover such extended time for completion of work.

BSCDCL reserve the right of forfeiture of the performance guarantee in the event of the contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract.

Performance guarantee shall be returned after successful completion / testing / commissioning and handing over the project to the client up to the entire satisfaction of BSCDCL / Client.

In case the contractor fails to submit the performance guarantee of the requisite amount within the stipulated period or extended period, letter of Award automatically will stand withdrawn and EMD of the contractor shall be forfeited.

#### **SECURITY DEPOSIT/ RETENTION MONEY**

The Security deposit or the retention money shall be deducted from each running bill of the contractor @ 5% (five per cent only) of the gross value of the Running Account bill. Earnest money shall be adjusted first in the security deposit and further recovery of security deposit shall commence only when the upto date amount of security deposit exceeds the earnest money deductible under this clause. No Interest shall be paid on amount so deducted.

Security deposit will be released after completion of O&M period.

The release/refund of security deposit of the contractor shall be subject to the observance/compliance of the conditions as under and whichever is later:

- a) Expiry of the defect liability period in conformity with provisions contained in clause (Defect liability clause). The expiry of defect liability period shall be extended from time to time depending upon extension of time granted by BSCDCL.

The contractor produces a clearance certificate from the labour office. As soon as the work is virtually completed, the contractor shall apply for the labour clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour



Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate.

- 3.4 BSCDCL reserves the right of part or full forfeiture of security deposit in addition to other claims in the event of contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract.

### **MOBILIZATION ADVANCE**

Mobilization advance up to maximum of amount as mentioned in the

"Memorandum (Annexure-I)" shall be paid to the contractor, if requested by him, on submission of irrevocable Bank Guarantee valid for contract period of an amount 1.2 times of the mobilization advance to take care of advance and interest at prescribed rate from a nationalized bank or all Commercial scheduled bank in the enclosed Performa. The Mobilization advance shall be interest bearing @ as mentioned in the "Memorandum (Annexure-I)".

This advance shall be paid in three installments as follows:

First Installment of fifty percent of total mobilization advance shall be paid after the agreement is signed and upon submission of performance guarantee for full amount as specified.

2nd installment of twenty five percent of total mobilization advance will be paid after the setting up of site office and site laboratory, complete mobilization of plant and machinery, scaffolding & shuttering materials etc.

The Balance twenty five percent of total mobilization advance shall be paid on completion of 10% of work in terms of cost and after the contractor has fully mobilized the work at site.

The mobilization advance bear simple interest at the rate as mentioned in the Memorandum (Annexure-I) and shall be calculated from the date of payment to the date of recovery (365 days in a year) both days inclusive, on the outstanding amount of advance. Recovery of such mobilization advanced including interest shall be made by the deduction from the contractor's bills commencing after first ten percent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered either by the time eighty percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment or on expiry of eighty percent of contract period (i.e. time allowed for completion of work in terms of Memorandum-Annexure-I) whichever is earlier.

The bank guarantee submitted by contractor against mobilization advance shall initially be made for the full amount as mentioned in para 4.1 above

and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of completion of recovery together with

interest. However, the contractor can submit part bank guarantees against the mobilization advance in as many numbers as per proposed number of recovery installments equivalent to the amount of each installment.

Notwithstanding what is contained above, no mobilization advance whatsoever shall be payable, if payment of mobilization advance is not mentioned in the Memorandum (Annexure-I).

### **SECURED ADVANCE AGAINST NON-PERISHABLE MATERIALS**

Interest free secured advance up-to a maximum of 75 % (seventy five percent) of the Market Value of the Materials or the 75 % (seventy five percent) cost of materials as derived from the tendered item rate of the contractor, whichever is less, required for incorporation in the permanent works and brought to site and duly certified by BSCDCL site Engineer shall be paid to the Contractor for all non-perishable items as per UADD/MPPWD/CPWD norms. The advance will be paid only on submission of Indemnity Bond in the prescribed pro-forma. The advance shall be recovered in full from next Running Account bill and fresh advance shall be paid for the balance quantities of materials. The contractor shall construct suitable go-down at the site of work for safe storage of the materials against any possible damages due to sun, rain, dampness, fire, theft etc. at his own cost. He shall also employ necessary watch & ward establishment for the purpose at his costs and risks.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-Charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance shall however, be paid on high risk materials such as ordinary glass, sand, petrol, diesel etc.

### **DEVIATIONS / VARIATIONS EXTENT AND PRICING**

The Engineer-in-Charge shall have power (i) to make any alterations in, omissions from, additions to or substitutions for, the original specifications, drawings, designs and instructions that may appear to him to be necessary during the progress of the work, (ii) to omit part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions, or substitutions shall form part of the contract as if originally provided therein and any altered, additions or substituted works which the contractor may be directed to do in the manner specified above as part of the work, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereunder provided:

The time for the completion of the work shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered be extended, if requested by the contractor, as follows:

in the proportion which the additional cost of the altered, additional or substituted work bears to the original tendered value plus

25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

If the extra items includes any work for which no rate is specified in the contract, then such work shall be carried out at the rates entered in the schedule of rates (as mentioned in Memorandum (Annexure-I)) for Civil/ Sanitary Works minus/plus the percentage which the tendered amount of scheduled items bears with the estimated amount of schedule items based on the Schedule of Rates (as mentioned in Memorandum (Annexure-I) for Civil/ Sanitary Works). The scheduled item means the items appearing in the Schedule of Rates (as mentioned in Memorandum (Annexure-I)for Civil/ Sanitary Works) which shall be applicable in this clause. This clause will apply mutates mutandis to electrical work except that Electrical Schedule of Rates as mentioned in Memorandum (Annexure-I) will be considered in place of Civil/ Sanitary works Schedule of rates as mentioned in Memorandum (Annexure-I)

However, In the case of extra item(s), (items that are completely new, and are in addition to the items contained in the contract, and not included in the schedule of rates (as mentioned in Memorandum (Annexure-I)), the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the engineer-in-charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para:

If the market rate for the substituted item so determined is more than the market rate of agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

If the market rate for the substituted item so determined is less than the market rate of the agreement (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)

In the case of contract item(s), substituted item(s), contract cum substituted items, which exceed the limits laid down in Memorandum (Annexure-I), the contractor shall within fifteen days of receipt of order of occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the scheduled of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the Contractor, determine the rates on the

basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Memorandum (Annexure-I), and the Engineer-in-charge shall after giving notice of the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

**6.4** The contractor shall send to the Engineer-in-Charge once every three months,

an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Engineer-in-charge may authorize consideration of such claims on merits.

For the purpose of operation of Memorandum (Annexure-I), the following works shall be treated as works relating to foundation unless and otherwise defined in the Contract:

For Buildings: All works up to 1.2 meters above ground level or up to floor 1 level whichever is lower.

For abutments, piers and well steining: All works upto 1.2m above the bed level.

For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures: All works upto 1.2 metres above the ground level.

For reservoirs/tanks (other than overhead reservoirs/tanks). All works upto 1.2 metres above the ground level.

For basement: All works upto 1.2m above ground level or upto floor 1 level whichever is lower.

For Roads, all items of excavation and filling including treatment of sub base.

Any operation incidental to or necessarily has to be in contemplation of tenderer while filling, tender or necessary for proper execution of the item

included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not specifically indicated in the description of the item and the relevant specifications shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule or rates as the case may be Nothing extra shall be admissible for such operations.

Market Rates to be determined as per various sub-clauses under the clause 6.0 shall be on the basis of **Prevailing rates of Material (unless mentioned**

**otherwise), Relevant Labour authority rate for Labour, market rates of T&P etc. plus 15% towards Contractors' Profits and Overheads.**

The following factors may be considered in the justification of rates on which

**Contractor's overhead & profit** shall not be applicable:

Buildings and Other Construction Worker Cess as applicable in the state of work place

EPF (Employer Contribution) component, as per EPF act on the portion of labour's wages

VAT on works contract / WCT, as per composite scheme in the State of work place, if applicable Service Tax

### **ESCALATION**

No claim on account of any escalation on whatsoever ground shall be entertained at any stage of works. All rates as per Bill of Quantities (BOQ) quoted by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation shall be applicable on this contract.

### **COMPENSATION FOR DELAY**

If the contractor fails to maintain the required progress in terms of clause

or relevant clause of GCC & Special Conditions of Contract, to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the BSCDCL on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Engineer in charge (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day / week (as applicable) that the progress remains below that specified in Clause

or the relevant clause in GCC & Special Conditions of Contract or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified

- i) Compensation for delay of work @ 1.5% per month delay to be computed on daily basis.

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the item or group of items of work for which a separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with BSCDCL.

In case, the contractor does not achieve a particular milestone mentioned elsewhere in the tender document, or the re-scheduled milestone(s) the amount

shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount or failure to achieve a milestone, shall be automatic without any notice to the Contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

### **ACTION IN CASE WORK NOT DONE AS PER SPECIFICATIONS**

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the BSCDCL or any organization engaged by the BSCDCL for Quality Assurance and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. If it shall appear to the Engineer-in-charge or his authorized subordinates in-charge of the work or to the officer of Quality Assurance or his subordinate officers or the officers of the organization engaged by the BSCDCL for Quality Assurance or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 8.0 of the contract (for non-completion of the work in time) for this default. In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the Engineer in charge may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

## **ACTION IN CASE OF BAD WORK**

If it shall appear to the Engineer-in-Charge or his authorized representative in charge of the work or to the Chief Technical Examiner or to any other inspecting agency of Government/ State Government/ Owner where the work is being executed, that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the contractor shall on demand in writing which shall be made within twelve months of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, Certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid while the contractor failure to do so shall continue, the Engineer-in-Charge may rectify or remove and re-execute the work or remove and replace with others, the material or articles complained of as the case may be at the risk and expense in all respects of the contractor.

## **CANCELLATION/DETERMINATION OF CONTRACT IN FULL OR PART**

Subject to other provisions contained in this clause the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter; or

If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge; or

If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or

If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or

If the contractor shall offer or give or agree to give to any person in BSCDCL service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action relation to the obtaining or execution of this or any other contract for BSCDCL; or

If the contractor shall enter into a contract with BSCDCL in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge; or

If the contractor shall obtain a contract with BSCDCL as a result of wrong tendering or other non-bona-fide methods of competitive tendering or commits breach of Integrity Pact; or

If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or If the contractor being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days, or. If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of the labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer sublet or otherwise parts with the entire works or any portion thereof without and prior written approval of the Engineer-in-Charge.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge may without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to BSCDCL, by a notice in writing to cancel the contract as whole or only such items of work in default from the Contract, the Engineer-in-charge shall have powers:

Take possession of site and any materials, constructional plant, implements, stores, etc. thereon; and/ or

Carry out the incomplete work by any means at the risk and cost of the contractor; and/ or

The Engineer-in-charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or



damage suffered by BSCDCL because of action under this clause shall not exceed 10% of the tendered value of the work.

To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination or rescission the full security deposit recoverable under the contract and performance guarantee shall be liable to be forfeited and un-used materials, construction plants, implements, temporary buildings, etc. shall be taken over and shall be absolutely at the disposal of the BSCDCL. If any portion of the Security Deposit has not been paid or received it would be called for and forfeited; and/ or

To employ labour paid by the BSCDCL and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials of the amount of which cost and

price certified by the Engineer-in-Charge shall be final and conclusive) against the contractor and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Engineer-in- Charge as to the value of the work done

shall be final and conclusive against the contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. If the expenses incurred by the BSCDCL are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor; and/ or

After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed or delayed with reference to the General Conditions of Contract clause no. 25.0 and/ or relevant clause of Condition Special of Contract, out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Engineer-in-Charge shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by BSCDCL under his contract or on any other account whatsoever or from his security deposit or the proceeds of sales of unused materials, construction plants, implements temporary buildings etc. thereof or a sufficient part thereof as the case may be. If the expenses incurred by the BSCDCL are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor; and/or

By a notice in writing to withdraw from the contractor any items or items of work as the Engineer-in-charge may determine in his absolute discretion and get the same executed at the risk and cost of the contractor.

Any excess expenditure incurred or to be incurred by BSCDCL in completing the works or part of the works or the excess loss or damages suffered or

may be suffered by BSCDCL as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to BSCDCL in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract and law.

Any sums in excess of the amounts due to BSCDCL and unsold materials, constructional plant etc. shall be returned to the contractor, provided always that if cost or anticipated cost of completion by BSCDCL of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

In the event of anyone or more of the above courses being adopted by the Engineer-in-Charge the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified. Provided further that if any of the recoveries to be made, while taking action as above, are in excess of the security deposit forfeited, these shall be

Limited to the amount by which the excess cost incurred by the BSCDCL exceeds the security deposit so forfeited.

#### **CONTRACTOR LIABLE TO PAY COMPENSATION EVEN IF ACTION NOT TAKEN UNDER CLAUSE 11.0**

In any case in which any of the powers conferred upon the Engineer-in-Charge by relevant clause thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under any clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools,

plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final and binding on the contractor and/or direct the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

### **CARRYING OUT PART WORK AT RISK & COST OF CONTRACTOR**

If contractor:

At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or

Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge;

or

Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.

The Engineer-in-Charge without invoking action under clause 11.0 of contract may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to BSCDCL, by a notice in writing to take the part work/part incomplete work of any item(s) out of his hands and shall have powers to:

Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or

Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by BSCDCL because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been

carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by BSCDCL in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by BSCDCL as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to BSCDCL in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract. In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

## **SUSPENSION OF WORKS**

The contractor shall, on receipt of the order in writing of the Engineer-in-charge, suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-charge may consider necessary for any of the following reasons:

On account of any default on part of the contractor, or

For proper execution of the works or part thereof for reason other than the default of the contractor, or

For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-charge.

(b) If the suspension is ordered for reasons (ii) and (iii) in sub-para (a) above.

The contractor shall be entitled to an extension of the time equal to the period of every such suspension plus 25% for completion period. No

adjustment in contract price will be allowed for reasons of such suspension.

- ii) In the event of the Contractor treating the suspension as an abandonment of the Contract by BSCDCL, he shall have no claim to payment of any compensation on account of any profit or advantage which he may have derived from the execution of the work in full.

#### **TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR**

Without prejudice to any of the right or remedies under this contract if the contractor dies, the Engineer in-charge shall have the option of terminating the contract without compensation to the contractor.

#### **TIME ESSENCE OF CONTRACT & EXTENSION FOR DELAY**

The time allowed for execution of the Works as specified in the Memorandum (Annexure-I) or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from such time period as mentioned in MEMORANDUM (ANNEXURE – I) or the date on which the Engineer-in-Charge issues written orders to commence the work. If the Contractor commits default in commencing the execution of the work as aforesaid, the BSCDCL shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

- 16.2** Within 10 (Ten) days of Letter of Award, the Contractor shall submit a time and Progress Chart (CPM/ PERT/ Quantified Bar Chart) and get it approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate the forecast (mile-stones) of the dates of commencement and completion of various items, trades, sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time stipulated in the Contract documents and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work exceeds one month (save for special jobs for which a separate program has been agreed upon) complete 1/8th of the whole of work before 1/4th of the whole time allowed in the contract has elapsed, 3/8th of the work before one half of such time has elapsed and 3/4th of the work before 3/4th of such time has elapsed. The physical progress report including photographs shall be submitted by the contractor on the prescribed format & the intervals (not exceeding one month) as decided by the Engineer in Charge. The compensation for delay as per clause 8.0 shall be eneviable at intermediate stages also, in case the required progress is not achieved to meet the above time deadlines of the completion period and/ or milestones of time and progress chart, provided always that the total amount of Compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work”.

If the work(s) be delayed by:

1. force-majeure or
2. Abnormally bad weather, or

3. Serious loss or damage by fire, or
4. Civil commotion, local commotion of workmen, strike or lockout, affecting any or the trades employed on the work, or
5. Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
6. Non-availability of stores, which are responsibility of the BSCDCL or,
7. Non-availability or break down of tools and plant to be supplied or supplied by BSCDCL or,
8. Any other cause which, in the absolute discretion of the BSCDCL, is beyond the Contractor's control, then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge within 07 days but shall nevertheless use constantly his best endeavor to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

- 16.4** Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay in the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired. In any such case BSCDCL may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing within a reasonable time from the receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and the extension of time so given by the Engineer-in-Charge shall be binding on the contractor.

## **TIME SCHEDULE & PROGRESS**

**17.1** Time allowed for carrying out all the works as entered in the tender shall be as mentioned in the "Memorandum (Annexure-I)" which shall be reckoned from the 10th day from the date on which the letter of Award is issued to the Contractor. Time shall be the essence of the contract and contractor shall ensure the completion of the entire work within the stipulated time of completion.

The contractor shall also furnish within 10 days of date of issue of letter of Award a CPM network/ PERT chart/ Bar Chart for completion of work within stipulated time. This will be duly got approved from BSCDCL. This approved Network/ PERT Chart shall form a part of the agreement. Achievement of milestones as well as total completion has to be within the time period allowed.

Contractor shall mobilize and employ sufficient resources for completion of all the works as indicated in the agreed BAR CHART/PERT Network. No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the Engineer-in-Charge.

During the currency of the work the contractor is expected to adhere to the time schedule on mile stone and total completion and this adherence will be a part of Contractor's performance under the contract. During the time schedule on mile

stone and total completion and this adherence will be a part of Contractor's performance under the contract. During the execution of the work contractor is expected to participate in the review and updating of the Network/BAR CHART undertaken by the BSCDCL. These reviews may be undertaken at the discretion of Engineer-in-charge either as a periodical appraisal measure or when the quantum of work order on the contractor is substantially changed through deviation orders or amendments. The review shall be held at site or any of the offices of BSCDCL/owner /consultant at the sole discretion of BSCDCL. The contractor will adhere to the revised schedule thereafter. The approval to the revised schedule resulting in a completion date beyond the stipulated date of completion shall not automatically amount to a grant of extension of time to the contractor.

Contractor shall submit (as directed by Engineer-in-Charge) progress reports on a computer based program (program and software to be approved by Engineer-in-Charge) highlighting status of various activities and physical completion of work. The contractor shall send completion report with as built drawings to the office of Engineer-in-Charge, of BSCDCL in writing within a period of 30 days of completion of work.

The photographs of the project taken on last day of every month indicating progress of work (in soft copies) shall be attached along with the physical progress reports to be submitted to Engineer-in-charge.

## **TAXES AND DUTIES**

**18.1** Except as otherwise specifically provided in the contract, the contract or shall be liable and responsible for the payment, of all taxes, such as excise duty, custom duty, sales tax, Value Added Tax including the purchase tax, consignment tax, work contract tax, service tax, entry tax or any other similar tax in the state concerned, turnover tax, toll tax, octroi charges, royalty, labour cess, levy and other tax(es) or duty(ies) which may be specified by local/state/ central government from time to time on all material articles which may be used for this work. The rates quoted by him in the tender in bill of quantities shall be inclusive of all taxes, duties, levies etc.

The imposition of any new and/or increase in the aforesaid taxes, duties levies (including fresh imposition of any other Tax) is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies/cess, the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of Engineering-in charge attributable to delay in execution of work within the control of contractor. The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineering-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

In the event of nonpayment/default in payment of any of the above taxes, BSCDCL reserves the right to with-hold the dues/payments of contractor and make payment to local/state/Central Government authorities or to labourers as may be applicable.

The rate quoted by the contractor shall be deemed to be inclusive of all taxes as given in clause 19.1 Tax deductions at source shall be made as per laws prevalent in the State as applicable for the work.

The stamp duty and registration charges, if any, on the contract agreement levied by the Government or any other statutory body, shall be paid by the contractor as applicable in the state of work.

It will be incumbent upon the Contractor to obtain a registration certificate as a dealer under the Local Sales Tax Act / VAT and the Central Sales Tax Act and necessary evidence to this effect shall be furnished by the Contractor to BSCDCL.

The tenderer shall quote his rates inclusive of Service Tax, Turnover Tax / Sales Tax on Works Contract / VAT payable to State Govt. along-with other taxes, duties, levies etc. in conjunction with other terms and conditions. In case, the Turnover Tax/ Sales Tax on Works contract on execution of works is waived off by the State Govt. at later stage for this project, the equivalent amount from the date of waiver of such tax (as per prevailing rate as on the date of waiver of Turnover Tax/ Sales Tax on Works Contract/ VAT) shall be deducted from the amount payable to the contractor from subsequent RA bills.

In the event of decrease / relaxation and / or waiver of any of the existing / prevailing tax(es), duties, levies, cess by Central / state Govt. Or any other statutory body(ies), after the last stipulated date for the receipt of tender including extension (if any), and the contractor thereupon has been paid or has raised claims of such tax(es), duties, levies, cess; such sums shall be recovered / deducted (from claims raised but which has not been paid) effective from the date as reckoned in the relevant statutory order / law / ordinance etc. The contractor, shall, within a period of 30 days of any such waiver/relaxation/decrease in tax(es), duties, levies, cess, give a written notice thereof to Engineer-in-charge stating the statutory change with Documentary proof thereto. Provided always that Engineer-in-charge shall have full powers to effect recovery/deduction on account of any such statutory change even if contractor has not intimated in the event when any such statutory action comes to his notice.

### **INCOME TAX DEDUCTION (TDS)**

Income tax deductions shall be made from all payments made to the contractor including advances against work done, as per the rules and regulations in force, in accordance with the Income Tax act prevailing from time to time.

### **VALUE ADDED TAX (VAT) / SALES TAX**

The contractor shall comply with all the provisions of VAT / SALES TAX Act applicable in the respective state. The contractor shall be registered with the applicable sales tax authority of the state / Union territory as applicable for the works. The contractor shall be responsible for submission of appropriate sales tax / VAT to the authority and BSCDCL shall all times be kept indemnified for non fulfilment of the sales tax / VAT obligations by the contractor including but not limited to registration, submission of tax & its returns at appropriate times and any other statutory obligation(s) in this regard as applicable. However, contractor is bound to submit the proof of deposit of Sales Tax / VAT to the BSCDCL failing which the



Engineer-in-charge shall have, without prejudice to any other rights or remedy available under any of the clauses of contract, full powers to deduct / recover the sum(s) he deems fit from any amount due / payable or any security deposit available at his disposal.

## **SERVICE TAX**

The tenderer shall quote his rates inclusive of Service Tax along with other taxes, duties, levies etc. The contractor must have registration No. with Service Tax Authorities and will provide copy of Registration to BSCDCL before release of any payment by the Corporation. The contractor will submit regular Invoice / Bill fulfilling all conditions of Service Tax Rules 1994 amended from time to time and shall produce proof of deposit of Service Tax to the Corporation as and when demanded failing which the Engineer-in-charge shall have without prejudice to any other rights or remedy available under any of the clauses of contract, full powers to deduct / recover the sum(s) he deems fit from any amount due / payable or any security deposit available at his disposal.

## **ROYALTY ON MATERIALS:**

The contractor shall deposit royalty and obtain necessary permit for supply of bajri, stone, kankar, sand and other materials etc. from the local authorities and quoted rates shall be inclusive of royalty.

The contractor shall be deemed to have inspected the site, its surrounding and acquainted itself with the nature of the ground, accessibility of the site and full extent and nature of all operations necessary for the full and proper execution of the contract, space for storage of materials, constructional plant, temporary works, restrictions on the plying of heavy vehicles in area, supply and use of labour materials, plant, equipment and laws, rules and regulations, if any, imposed by the local authorities.

The rates and prices to be tendered in the bill of quantities are for completed and finished items of works and complete in all respects. It will be deemed to include all constructional plant, labour, supervision materials, transport, all temporary works, erection, maintenance, contractor's profit and establishment/overheads, together with preparation of designs & drawings pertaining to casting yard, shop drawing, fabrication drawing (if required), staging form work, stacking yard, etc. all general risk, all taxes, royalty, duties, cess, octroi and other levies, insurance liabilities and obligations set out or implied in the tender documents and contract .

If any temporary/ permanent structure is encountered or safety of such structure in the vicinity is endangered due to execution of the project, the contractor has to protect the structures by any means as per direction of Engineer-in-Charge. If any damage is caused to any temporary or permanent structure(s) in the vicinity due to execution of the project, the contractor has to make good the same by any means as per direction of Engineer-in-Charge. The contractor should inspect the site of work from this point of view. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the contractor shall not be entitled for any extra payment in this regard.

## **INSURANCE OF WORKS ETC**

Contractor is required to take contractor's all risk policy or erection all risk policy (as the case may be) from an approved insurance company in the

joint name with BSCDCL and bear all costs towards the same for the full

period of execution of works including the defect liability period for the full amount of contract against all loss of damage from whatever cause arising other than **excepted risks** for which he is responsible under the terms of the contract and in such manner that the BSCDCL and the contractor are covered during the period of construction of works and/or also covered during the period of defect liability for loss or damage

The work and the temporary works to the full value of such works.

The materials, constructional plant, centering, shuttering and scaffolding materials and other things brought to the site for their full value.

Whenever required by BSCDCL, the contractor shall produce the policy or the policies of insurance and the receipts for payment of the current premium.

## **INSURANCE UNDER WORKMEN COMPENSATION ACT**

Contractor is required to take insurance cover under the Workman Compensation Act, 1923 amended from time to time from an approved insurance company and pay premium charges thereof. Wherever required by BSCDCL the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

## **THIRD PARTY INSURANCE**

Contractor is required to take third party insurance cover for an amount of 5%(five percent) of contract value from an approved insurance company for insurance against any damage, injury or loss which may occur to any person or property including that of BSCDCL / owner / client, arising out of the execution of the works or temporary works. Wherever required by BSCDCL the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

In case of failure of the contractor to obtain contractors all risk policy, insurance under workman compensation act and third party insurance as described above within one month from the date of commencement of work, running account payments of the contractor shall be withheld till such time the aforesaid insurance covers are obtained by the contractor.

If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of the contract, then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company could offer, such an insurance is ought to be done after the BSCDCL's approval, by or through the subsidiary of the General Insurance Company.

(Refer clause 74.2) The contractor shall at all times indemnify BSCDCL and Owner against all claims, damages or compensation under the provision of Payment of wages act-1936, Minimum Wages Act-1948, Employer's liability Act-1938, the workmen's compensation Act-1947, Industrial Disputes Act-1947 and Maternity Benefit Act-1961 or any modifications thereof or any other law in force or as consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the contractor or not, against all costs, charges and expenses of any suit, action or proceedings arising out of such incident or injury and against all sum or sums which may with the consent of the contractor be paid to compromise or compound any such claim. Without limiting his obligations and liabilities as above provided, the contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act 1923 or any modification thereof or any other law relating thereto.

## **PAYMENTS**

All running payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and/or accepted by BSCDCL and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of the BSCDCL under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect the contract. The final bill shall be submitted by the contractor within three months of the completion of work, otherwise BSCDCL's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on contractor. Each Running Bills should be accompanied by two sets of at-least 20 (twenty) photographs as per direction of Engineer-in-charge taken from various points depicting status of work as on Report/ Bill date and Monthly Progress Report for the concerned month in the pro-forma to be given/ approved by Engineer-in-Charge. Intermittent progress Photographs as and when required shall also be provided by the Contractor at his own cost as per direction of Engineer-in-Charge. No payment of running account bill shall be released unless it is accompanied by photographs and Monthly Progress Report as above.

It is clearly agreed and understood by the Contractor that notwithstanding anything to the contrary that may be stated in the agreement between BSCDCL and the contractor; the contractor shall become entitled to payment only after BSCDCL has received the corresponding payment(s) from the client/ Owner for the work done by the contractor. Any delay in the release of payment by the client/ Owner to BSCDCL leading to a delay in the release the corresponding payment by BSCDCL to the contractor shall not entitle the Contractor to any compensation/ interest from BSCDCL.

All payments shall be released by way of e-transfer through RTGS/NEFT in India directly at their Bank account by BSCDCL.

## **MEASUREMENTS OF WORKS**

Engineer-in-charge shall, except as otherwise provided, ascertain and determine by measurement, the value of work done in accordance with the contract.

Except where any general or detailed description of the work expressly shows to the contrary, measurement shall be taken in accordance with the

Procedure set forth in the UADD/MPPWD/CPWD Specification. In the case of items which are not covered by specifications, mode of measurement as specified in the Technical Specifications of the contract and if for any item no such technical specification is available, then a relevant standard method of measurement issued by the Bureau of Indian Standard shall be followed.

Provided further that, In case of Cancellation/Determination of Contract in Full or in Part in accordance with clause 11.0 (and its sub-clauses), following methodology shall be adopted in respect of measurements in addition to what has been mentioned in foregoing:-

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and BSCDCL shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

## **COMPUTERISED MEASUREMENT BOOKS**

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book as per the format of BSCDCL so that a complete record is obtained of all the items of works performed under the contract. All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge

or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative.

After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to BSCDCL a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly numbered and bound, after getting the earlier MB cancelled by the BSCDCL. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the BSCDCL.

The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages numbered along with two spare copies of the "bill.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements /levels by the Engineer-in-Charge or his representative.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the BSCDCL to check the measurements recorded by contractor and all provisions stipulated herein above or anywhere in the tender document shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

### **WITHHOLDING AND LIEN IN RESPECT OF SUMS DUE FROM CONTRACTOR**

Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, BSCDCL shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, BSCDCL shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, BSCDCL shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or BSCDCL will be kept withheld or retained as such by the Engineer-in-Charge or BSCDCL till the claim arising out of or under the contract is

determined by the competent court and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the BSCDCL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may whether in his individual capacity or otherwise. BSCDCL shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc, to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for BSCDCL to recover the same from him in the manner prescribed in sub-clause 27.1 of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by BSCDCL to the contractor, without any interest thereon whatsoever.

## **LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS**

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or by BSCDCL against any claim of the Engineer-in-Charge or BSCDCL in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the BSCDCL. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the BSCDCL will be kept withheld or retained as such by the Engineer-in-Charge

or the BSCDCL or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the competent court, as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

## **WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ORDERS ETC.**

All items of work in the bill of quantities/ schedule of quantities shall be carried out as per the UADD/MPPWD/CPWD/ MORTH (as the case may be) specifications, drawings and instructions of the Engineer-in-Charge of BSCDCL and the rates shall include for supply of required materials including proper storage, consumables, skilled & unskilled labour, supervision and tools, tackles, plant & machinery complete as called for in the detailed specifications and conditions of the contract. Latest updated UADD/MPPWD/CPWD specification shall be followed for execution of work.

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications.

The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work assigned by the Engineer-in-Charge.

The contractor shall comply with the provisions of the contract and execute the works with care and diligence and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

## **MATERIALS TO BE PROVIDED BY THE CONTRACTOR**

The contractor shall, at his own expense, provide all materials, required including Cement & Steel for the works. The contractor shall at his own expense and without

delay; supply to the Engineer-in-Charge samples of materials to be used on the work and shall get the same approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract.

The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply.

The contractor shall at his risk and cost, submit the samples of materials to be tested or analyzed and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance and cost in obtaining the right and visit to such access. The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full power to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may require such removal and substitution shall be borne by the contractor.

## **MATERIALS AND SAMPLES**

The materials/products used on the works shall be one of the approved make/brands out of list of manufacturers / brands /makes given in the tender documents. The contractor shall submit samples/ specimens out of approved makes of materials/ products to the Engineer-in-Charge for prior approval. In exceptional circumstances Engineer-in-Charge may allow alternate equivalent makes/brands of products/ materials at his sole discretion. The final choice of brand / make shall remain with the Engineer- in-Charge, whose decision in this matter shall be final and binding and nothing extra on this account shall be payable to the Contractor. In case single brand/ make are mentioned, other equivalent makes/ brands may be considered by the Engineer-in-Charge. In case of variance in UADD/MPPWD/CPWD/IS/BIS Specifications from approved products/makes specification, the specification of approved product/make shall prevail for which nothing shall be paid extra to the Contractor. In case no make or brand of any materials, articles, fittings and accessories etc. is specified, the same shall comply with the relevant Indian Standard Specifications and shall bear the ISI/BIS mark. The Engineer of BSCDCL and the owner shall have the discretion to check quality of materials and equipment's to be incorporated in the work, at source of supply or site of work and even after incorporation in the work. They shall also have the discretion to check the workmanship of various items of work to be executed in this work. The contractor shall provide the necessary facilities and assistance for this purpose.

The above provisions shall not absolve the contractor from the quality of final product and in getting the material and workmanship quality checked and approved from the Engineer-in-Charge of BSCDCL.



The contractor shall well in advance, produce samples of all materials, articles, fittings, accessories etc. that he proposes to use and get them approved in writing by BSCDCL. The materials articles etc. as approved shall be *LABELLED* as such and shall be signed by BSCDCL and the Contractor's representative.

The approved samples shall be kept in the custody of the Engineer-in- Charge of BSCDCL till completion of the work. Thereafter the samples except those destroyed during testing shall be returned to the contractor No payment will be made to the contractor for the samples or samples destroyed in testing.

The brands of all materials, articles fittings etc. approved together with the names of the manufacturers and firms from which supplies have been arranged shall be recorded in the site order book.

The contractor shall set up and maintain at his cost, a field testing laboratory for all day to day tests at his own cost to the satisfaction of the Engineer-in-Charge. This field testing laboratory shall be provided with equipment and facilities to carry out all mandatory field tests as per MORTH/UADD/MPPWD/CPWD (as the case may be) specifications. The laboratory building shall be constructed and installed with the appropriate facilities, Temperature and humidity controls shall be available wherever necessary during testing of samples. All equipment's shall be provided by the Contractor so as to be compatible with the testing requirements specified. The Contractor shall maintain all the equipment's in good working condition for the duration of the contract. The Contractor shall provide approved qualified personnel to run the laboratory for the duration of the Contract. The number of staff and equipment available must at all times be sufficient to keep pace with the sampling and testing programmer as required by the Engineer-in-charge. The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the site, etc. The Contractor shall re-calibrate all measuring devices whenever so required by the Engineer-in-charge and shall submit the results of such calibration without delay. All field test shall be carried out in the presence of BSCDCL's representative. All costs towards samples, materials, collection, transport, manpower, testing etc. shall be borne by the Contractor and are deemed to be included in the rates quoted by him in the bill of quantities.

The contractor(s) shall display the calibration certificate of each equipment at the location of equipment & shall get recalibrated at least one week before its expiry date.

## **MATERIALS PROCURED WITH THE ASSISTANCE OF BSCDCL**

If any material for the execution of this contract is procured with the assistance of BSCDCL either by issue from its stores or purchase made under orders or permits or licenses obtained by BSCDCL, the contractor shall hold and use the said materials economically and solely for the purpose of this contract and shall not dispose them without the permission of Engineer-in-charge. The contractor, if required by the BSCDCL, shall return all such surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination on whatsoever reason, on being paid or credited such price as the Engineer-in-charge shall determine having due regard to the conditions of materials. The price allowed to the contractor, however, shall not exceed the amount charged to him excluding the element of storage charges which shall be 10% of the cost charged to contractor. The decision of the Engineer-in-charge shall be final and conclusive.

Contractor(s) has / have to deploy security personnel for safeguarding of materials procured at site.

### **CONTRACTOR TO SUPPLY TOOLS & PLANTS**

The contractor shall provide at his own cost all materials, machinery, tools & plants as require for completion of work. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement or examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

### **MOBILIZATION OF MEN, MATERIALS AND MACHINERY:**

All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipment's, clearing the site etc. shall be deemed to be included in prices quoted and no separate payment on account of such expenses shall be entertained.

It shall be entirely the Contractor's responsibility to provide, operate and maintain all necessary construction equipment's, scaffoldings and safety, gadget, lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all jobs as per the specifications and within the schedule time of completion of work. Further, contractor shall also be responsible for obtaining temporary electric and water connection for all purposes. The contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.

It shall be the responsibility of the contractor to obtain the approval for any revision and/or modification desired by him from BSCDCL before implementation.

The procurement and supply in sequence and at the appropriate time of all materials and consumable shall be entirely the contractor's responsibilities and his rates for execution of work shall be inclusive of supply of all these items.

It is mandatory for the contractor to provide safety equipment's and gadgets to his all workers, supervisory and Technical staff engaged in the execution of the work while working. The minimum requirement (but not limited to) shall be gum boots, safety helmets, Rubber hand gloves, face masks, safety nets, safety belts, goggles

etc. as per work requirements. Sufficient nos. of these equipment's and gadgets shall also be provided to BSCDCL by the contractor at his own cost for use of BSCDCL Officials and/ or workforce while working/supervision of work at site. No staff/ worker shall be allowed to enter the site without these equipment's/ gadgets.

The cost of the above equipment's/ gadgets are deemed to be included in the rates quoted by the contractor for the items & works as per Bill of Quantities and contractor shall not be entitled for any extra payment in these regard. The above norm is to be strictly complied with at site. In case the contractor is found to be deficient in providing Safety Equipment's/ Gadgets in the opinion of Engineer-in-charge, the Engineer-in-charge at his option can procure the same at the risk & cost of contractor and provide the same for the use of worksite and shall make the recoveries from the bills of the contractor for the same. The contractor shall abide by all rules & regulations pertaining to Health, Safety and Environment.

All designs, drawings, bill of quantities, etc., except Bar Bending Schedule, Shop & Fabrication drawings, for all works shall be supplied to the contractor for their scope of work all buildings services and development works by BSCDCL in phased manner as the works progress. However it shall be the duty and responsibility of the contractor to bring to the notice of the BSCDCL in writing as to any variation, discrepancy or any other changes required and to obtain revised drawings and designs and / or approval of the BSCDCL in writing for the same.

One copy of contract documents including drawings furnished to the contractor shall be kept at the site and the same shall at all reasonable times be available for inspection.

All materials, construction plants and equipments etc. once brought by the contractor within the project area, will not be allowed to be removed from the premises without the written permission of the Engineer-in-charge. Similarly all enabling works built by the contractor for the main construction undertaken by him, shall not be dismantled and removed without the written authority of the BSCDCL.

Contractor shall have to prepare the Bar Bending Schedule, shop and fabrication drawings free of cost, if required for any of the items of work.

Five copies of these drawings each including for revision will be submitted to BSCDCL for approval. Before executing the item, shop drawings and bar bending schedule should be approved by BSCDCL.

BSCDCL shall supply Work Force in the various categories to assist the contractor in execution of the works on recoverable basis as per provision mentioned elsewhere in the contract.

All contractors' plant, machinery and equipment shall be kept in perfect condition during currency of the contract.

## **QUALITY ASSURANCE PROGRAMME**

To ensure that the services under the scope of this contract are in accordance with the specifications, the Contractor shall adopt Quality Assurance Programme to control such activities at the necessary points:

The contractor shall prepare and finalize such Quality Assurance Programme within 15 days from date of issue Letter of Award. BSCDCL shall also carryout quality audit and quality surveillance of systems and procedures of Contractor's quality control activities. A Quality Assurance Programmer of Contractor shall generally cover the following:

His organization structure for the management and implementation of the proposed Quality Assurance Program.  
Documentation control system.

c) The procedure for purpose of materials and source inspection.

System for site controls including process controls.  
Control of non-conforming items and systems for corrective actions.  
Inspection and test procedure for site activities.  
System for indication and appraisal of inspection status.  
System for maintenance of records.  
System for handling, storage and delivery.

A quality plan detailing out quality practices and procedures, relevant standards and acceptance levels for all types of work under the scope of this contract.

All the quality reports shall be submitted by the Contractors in the formats appended hereto. Checklist enclosed here in this document shall be followed while carrying out Construction activities (items). If any item is not covered by the Checklist/ Formats appended hereto, the Format for the same may be developed and submitted to Engineer-in-Charge for approval and the same shall be adopted. These filled in formats shall be prepared in two copies and duly signed by representatives of contractor and BSCDCL. All the costs associate with Printing of Formats and testing of materials required as per technical specifications or by Engineer-in-charge shall be included in the Contractor's quoted rates in the Schedule/ Bill of quantities.

## **CONTRACT COORDINATION PROCEDURES, COORDINATION MEETINGS AND PROGRESS REPORTING**

The Contractor shall prepare and finalize in consultation with BSCDCL, a detailed contract coordination procedure within 15 days from the date of issue of Letter of Award for the purpose of execution of the Contract. The Contractor shall have to attend all the meetings at any place in India at his own cost with BSCDCL, Owners/

Clients or Consultants of BSCDCL/ Owner/ Client during the currency of the Contract, as and when required and fully cooperate with such personal and agencies involved during these discussions. The Contractor shall not deal in any way directly with the Clients/ Owners or Consultants of BSCDCL/Owner/ Clients and any dealing/correspondence if required at any time with Clients/ Owners/ Consultants shall be through BSCDCL only. During the execution of the work, Contractor shall submit at his own cost a detailed Monthly progress & programme report to the Engineer-in-charge of BSCDCL by 5th of every month. The format of monthly progress & programme report shall be as approved by Engineer-in-Charge of BSCDCL.

### **COMPLETION CERTIFICATE AND COMPLETION PLANS**

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days

of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or

(b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof less actual cost incurred on removal of materials / debris / malba etc.

The contractor shall submit completion plan as required vide General Specifications for Electrical works as applicable within thirty days of the completion of the work. In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs.5,00,000 (Rs. Five Lakhs only) as may be fixed by the Engineer-in-charge concerned and in this respect the decision of the Engineer-in-charge shall be final and binding on the contractor.

## **PROHIBITION OF UNAUTHORISED CONSTRUCTION & OCCUPATION**

No unauthorized buildings, construction of structures should be put up by the contractor anywhere on the project site, neither any building built by him shall be occupied in un-authorized manner by him or his staff.

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody in un-authorized manner during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy of compensation upto 5% of tendered value of work may be imposed by the Engineer-in-Charge whose decision shall be final both with regard to the justification and quantum and shall be binding on the contractor.

However, the Engineer-in-Charge, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

## **FORECLOSURE OF CONTRACT BY BSCDCL/OWNER**

If at any time after the commencement of the work the BSCDCL shall for any reason whatsoever is required to abandon the work or is not require the whole work thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor, who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the foreclosure of the whole or part of the works.

## **DEFECTS LIABILITY PERIOD**

The contractor shall be responsible for the rectification of defects in the works for a period twelve months from the date of taking over of the works by the BSCDCL or clients whichever is later. Any defects discovered and brought to the notice of the contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by BSCDCL at the cost and expense of the contractor

## **RESTRICTION ON SUBLETTING**

The contractor shall not sublet or assign the whole or part of the works except where otherwise provided, by the contract. The provision of labour on piece work basis shall not be deemed to be a subletting under this clause.

The contractor may entrust specialist items of works like MEP services, HVAC, Lifts, Building Management System, Water Proofing, and Data &

Communication networking, interiors, landscaping etc. to the agencies specialized in the specific trade. The contractor shall give the names and details of such firm whom it is going to employ for approval of BSCDCL. These details shall include the expertise, financial status, technical manpower, equipment, resources and list of works executed and on hand of the specialist agency. Further, prior written approval is required from BSCDCL to deploy such agency / sub-contractor.

## **FORCE MAJEURE**

Any delay in or failure to perform of either party, shall not constitute default so as to give rise to any claim for damages, to the extent such delay or failure to perform is caused by an act of God, or by fire, explosion, flood or other natural catastrophe, governmental legislation, orders or regulation etc. Failure of the client / owner to hand over the entire site and / or release funds for the project, to BSCDCL, shall also constitute force majeure. The time for performance of the obligation by the parties shall be deemed to be extended for a period equal to the duration of the force majeure event. Both parties shall make their best efforts to minimize the delay caused by the force majeure event. If the failure / delay of the client /owner in handing over the entire site and / or in releasing the funds continues even on the expiry of the stipulated date of completion, BSCDCL, may, at the request of the contractor, foreclose the contract without any liability to either party. In the event of such foreclosure, the contractor shall not be entitled to any compensation whatsoever. If prior to such foreclosure the contractor has brought any materials to the site, the Engineer-in-Charge shall always have the option of taking over of all such materials at their purchase price or at the local current rates, whichever is lower.

## **NO COMPENSATION CLAUSE**

The contractor shall have no claim whatsoever for compensation or idle charges against BSCDCL on any ground or for any reason, whatsoever.

## **DIRECTION FOR WORKS**

All works under the contract shall be executed under the direction and subject to approval in all respect of the Engineer-in-Charge of BSCDCL who shall be entitled to direct at whatever point or points and in whatever manner works are to be commenced and executed.

The Engineer-in-Charge and his representative shall communicate or confirm

their instructions to the contractor in respect of the execution of work during their site inspection in a 'Works Site Order Book' maintained at the site office of Engineer-in-Charge. The contractor or his authorized representative shall confirm receipt of such instructions by signing against the relevant orders in the book.

## **WORK IN MONSOON AND RAIN**

The execution of the work may entail working in the monsoon also. The contractor must maintain labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No special/ extra rate will be considered for such work in monsoon. The contractors' rate shall be considered inclusive of cost of dewatering due to rains required if any and no extra rate shall be payable on this account. The stipulated period for completion of project includes the monsoon period, holidays & festivals.

## **WORK ON SUNDAYS, HOLIDAYS AND DURING NIGHT**

For carrying out work on Sunday and Holidays or during night, the contractor will approach the Engineer-in-Charge or his representative at least two days in advance and obtain his permission. The Engineer-in-Charge at his discretion can refuse such permission. The contractor shall have no claim on this account whatsoever. If work demand, the contractor shall make arrangements to carry out the work on Sundays, Holidays and in two, three shifts with the approval of Engineer-in-Charge at no extra cost to BSCDCL.

## **WATER AND ELECTRICITY**

The contractor shall make his own arrangement for Water & Electrical power for construction and other purposes at his own cost and pay requisite electricity and water charges. The contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.

## **LAND FOR LABOUR HUTS/ SITE OFFICE AND STORAGE ACCOMMODATION**

The contractor shall arrange the land for temporary office, storage accommodation and labour huts at his own cost and get the clearance of local authorities for setting up/construction of labour camp and same is deemed to be included in the rates quoted by the contractor for the works. The contractor shall ensure that the area of labour huts is kept clean and sanitary conditions are maintained as laid down by the local authorities controlling the area. The labour huts shall be so placed that it does not hinder the progress of work or access to the worksite. The vacant possession of the land used, for the purpose shall be given back by contractor after completion of the work.

The security deposit of the contractor shall be released only after contractor demolishes all structures including foundations and gives back clear vacant possession of this land In the event the contractor has to shift his labour campus at any time during execution of the work on the instructions of local authorities or as per the requirement of the work progress or as may be required by BSCDCL, he



shall comply with such instructions at his cost and risk and no claim whatsoever shall be entertained on this account.

### **WATCH, WARD AND LIGHTING OF WORK PLACE**

The contractor shall at his own cost take all precautions to ensure safety of life and property by providing necessary barriers, OBSTRUCTIONS, lights, watchmen etc. during the progress of work as directed by Engineer-in-charge.

### **BITUMEN WORK**

The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting started and shall hypothecate it to the Engineer-in-Charge. Although the materials are hypothecated to BSCDCL the Contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the written consent of the Engineer-in-charge.

If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors.

### **SCHEDULE OF QUANTITIES / BILL OF QUANTITIES**

The quantities shown against the various items of work are only approximate quantities which may vary as per the actual requirement at site. No item which is not covered in the bill of quantities shall be executed

by the Contractor without the approval of the BSCDCL. In case any Extra/Substituted item is carried out without specific-approval, the same will not be paid.

### **WATER PROOF TREATMENT**

**53.1** The water proof treatment shall be of type and specifications as given in the schedule of quantities.

The water-proofing of basement, roofs, water retaining areas shall be and remain fully effective for a period of not less than 10(Ten) years to be reckoned from the date of expiring of the Defect Liability period, prescribed in the

contract. At any time during the said guarantee period if BSCDCL finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the contractor of the same, the contractor shall be liable to rectify the defect or give re-treatment and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If the contractor fails to commence such work within the stipulated period, the BSCDCL may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer-in-Charge of BSCDCL for the cost payable by the contractor shall be final and binding upon him.

Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from Engineer-in-Charge of BSCDCL.

The BSCDCL reserves the right to get the quality of treatment checked in accordance with recognized test methods and in case it is found that the

chemicals with the required concentration and rate of application have not been applied, or the water proofing treatment is not done as per specifications, the contractor will be required to do the re-treatment in accordance with the required concentration & specifications at no extra cost failing which no payment for such work will be made. The extent of work thus rejected shall be determined by BSCDCL.

Water proofing shall be got done through approved / specialized agencies only with prior approval of Engineer-in-Charge.

The contractor shall make such arrangement as may be necessary to safe guard the workers and residents of the building against any poisonous effect of the chemicals used during the execution of the work.

During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of Engineer-In-Charge by the contractor at his cost and risk.

The contractor shall make his own arrangement for all equipment's required for the execution of the job. The contractor whose tender is accepted shall execute Guarantee Bond in the prescribed form as appended for guaranteeing the water proofing treatment.

## **INDIAN STANDARDS**

Wherever any reference is made to any IS in any particular specifications, drawings or bill of quantities, it means the Indian Standards editions with up to date amendments issued till last date of receipt of tender documents.

## **CENTERING & SHUTTERING**

Marine plywood or steel plates or any material mentioned elsewhere in the tender document or as approved by Engineer-in-Charge shall be used for formwork. The

shuttering plates shall be cleaned and oiled before every repetition and shall be used only after obtaining approval of BSCDCL's Engineers at site. The number of repetitions allowed for plywood and steel shuttering shall be at the discretion of Engineer-in-Charge of BSCDCL depending upon the condition of shuttering surface after each use and the decision of Engineer-in-Charge in this regard shall be final and binding on the contractor. No claim whatsoever on this account shall be admissible.

## **RECORDS OF CONSUMPTION OF CEMENT & STEEL**

For the purpose of keeping a record of cement and steel received at site and consumed in works, the contractor shall maintain a properly bound register in the form approved by the BSCDCL, showing columns like quantity received and used in work and balance in hand etc. This register shall be signed daily by the contractor's representative and BSCDCL's representative.

The register of cement & steel shall be kept at site in the safe custody of BSCDCL's Engineer during progress of the work. This provision will not, however, absolve the contractor from the quality of the final product.

In case cement or steel quantity consumed is lesser as compared to the

theoretical requirement of the same as per MORTH/UADD/MPPWD/CPWD (as the case may be) specifications/ norms, the work will be devalued and/ or a penal rate (i.e. double the rate at which cement/ steel purchased last) recovery for lesser consumption of cement/ steel shall be made in the item rates of the work done subject to the condition that the tests results fall within the acceptable criteria as per MORTH/UADD/MPPWD/CPWD (as the case may be) specifications otherwise the work shall have to be dismantled and redone by the contractor at no extra cost. In case of cement, if actual consumption is less than 98% of the theoretical consumption, a recovery shall be effected from the contractors bills at the penal rate for the actual quantity which is lower than 98% of theoretical consumption.

## **TESTS AND INSPECTION**

The contractor shall carry out the various mandatory tests as per specifications and the technical documents that will be furnished to him during the performance of the work. All the tests on materials, as

recommended by UADD/MPPWD/CPWD, MORTH and relevant Indian Standard Codes or other standard specifications (including all amendments current at the last date of submission of tender documents) shall be got carried out by the contractor at the field testing laboratory or any other recognized institution/ laboratory, at the direction of the BSCDCL. All testing charges, expenses etc. shall be borne by the contractor. All the tests, either on the field or outside laboratories concerning the execution of the work and supply of materials shall be got carried out by the contractor or BSCDCL at the cost of the Contractor.

## **WORKS TO BE OPEN TO INSPECTION**

All works executed or under the course of execution in pursuance of this contract shall at all times be open to inspection and supervision of the BSCDCL. The work during its progress or after its completion may also be inspected, by Chief Technical Examiner of Government of India (CTE) and/or an inspecting authority of State Government of State in which work is executed and/or by third party checks by owner/lients. The compliance of observations/improvements as suggested by the inspecting officers of BSCDCL/CTE/ State authorities/ Owners shall be obligatory on the part of the Contractor at the cost of contractor.

## **BORROW AREAS**

The contractor shall make his own arrangements for borrow pits and borrow disposal areas including their approaches and space for movement of man, machinery, other equipment's as required for carrying out the works. The contractor shall be responsible for taking all safety measures, getting approval, making payment of royalties, charges etc. and nothing extra shall be paid to the contractor on this account and unit rates quoted by the contractor for various items of bill of quantities shall deemed to include the same.

## **60.0 CARE OF WORKS**

From the commencement to the completion of works and handing over, the contractor shall take full responsibility for care thereof all the works and in case of any damage/loss to the works or to any part thereof or to any temporary works due to lack of precautions or due to negligence on part of Contractor, the same shall be made good by the Contractor.

## **CO-ORDINATION WITH OTHER AGENCIES**

Work shall be carried out in such a manner that the work of other Agencies operating at the site is not hampered due to any action of the Contractor. Proper Co-ordination with other Agencies will be Contractor's responsibility. In case of any dispute, the decision of BSCDCL shall be final and binding on the contractor. No claim whatsoever shall be admissible on this account.

## **SETTING OUT OF THE WORKS**

The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the works. If at any time during the progress of works, shall any error appear or arise in the position, levels, dimensions or alignment of any part of the works, the contractor shall at his own expenses rectify such error to the satisfaction of Engineer-in-charge. The checking of any setting out or of any line or level by the engineers of BSCDCL shall not in any way relieve the contractor of his responsibility for the correctness.

### **NOTICE BEFORE COVERING UP THE WORK**

The contractor shall give not less than seven day's notice before covering up or otherwise placing beyond the reach of measurement any work, to the Engineer-in-charge in order that the same may be inspected and measured. If any work is covered up or placed beyond the reach of inspection/measurement without such notice or his consent being obtained the same shall be uncovered at the contractor expenses and he shall have to make it good at his own expenses.

### **SITE CLEARANCE**

The contractor shall ensure that the working site is kept clean and free of obstructions for easy access to job site and also from safety point of view. Before handing over the work to the BSCDCL the contractor shall remove all temporary structures like the site offices, cement go-down, stores, labour hutments etc., scaffolding rubbish, debris etc. left over materials tools and plants, equipments etc., clean the site to the entire satisfaction of the Engineer-in-charge. If this is not done the same will be got done by BSCDCL at his risk and cost.

The contractor shall clean all floors, remove cement/ lime/ paint drops and deposits, clean joinery, glass panes etc., touching all painter's works and carry out all other necessary items of works to make the premises clean and tidy before handing over the building, and the rates quoted by the contractor shall be deemed to have included the same.

### **SET-OFF OF CONTRACTOR'S LIABILITIES**

BSCDCL shall have the right to deduct or set off the expenses incurred or likely to be incurred by it in rectifying the defects and/or any claim under this agreement against the Contractor from any or against any amount payable to the contractor under this agreement including security deposit and proceeds of performance guarantee.

### **POSSESSION PRIOR TO COMPLETION**

BSCDCL shall have the right to take possession of or use any completed or partially completed work or part of the work. Such possession or use shall not be deemed to be any acceptance of any work not completed in accordance with the contract agreement. If such prior possession or use by BSCDCL delays the progress of work an equitable adjustment in the time of completion will be made and the contract agreement shall be deemed to be modified accordingly. The decision of BSCDCL in such case shall be final binding and conclusive.

When the whole of the works or the items or the groups of items of work have been completed the contractor will give a notice to that effect to the Engineer in writing. The Engineer shall within 7 days of the date of receipt of such notice inspect the works and give instructions in writing to the contractor specifying the

balance items of work which are required to be done by the contractor and shall also notify the contractor of any defect in the works affecting completion.

**66.3** The contractor shall during the course of execution prepare and keep updated a complete set of 'as built' drawings to show each and every change from the contract drawings, changes recorded shall be countersigned by the Engineer-in-Charge and the contractor. Four copies of 'as built' drawings shall be supplied to BSCDCL by the contractor within 30 days of the completion. All costs incurred in this respect shall be borne by the contractor.

## **EMPLOYMENT OF PERSONNEL**

The contractor shall employ only Indian Nationals as his representatives,

servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personnel of doubtful antecedents and any other nationality in any way is associated with the works.

In case BSCDCL observed misconduct negligence or incompetence etc. on the part of any representative, agent, servant and workmen or employees etc. of the contractor, the BSCDCL shall have full power and without giving any reason to the contractor, instruct the contractor to remove such engineer / staff / worker from site and provide suitable replacements. The decision of the Engineer-in-charge shall be final and binding on the contractor. The contractor shall not be allowed any compensation on this account.

## **TECHNICAL STAFF FOR WORK**

The contractor shall employ at his cost the adequate number of technical staff during the execution of this work depending upon the requirement of work. For this purpose the numbers to be deployed, their qualification, experience as decided by BSCDCL shall be final and binding on contractor. The contractor shall not be entitled for any extra payment in this regard.

The technical staff should be available at site, whenever required by BSCDCL to take instructions.

Within 15 days of Letter of Award, the contractor shall submit a site organizational chart and resume including details of experience of the Project-in-Charge and other staff proposed to be deputed by him and the technical team shall be deputed by them on the Project after getting approval from Engineer-in-Charge. If desired by the contractor at later date, the Project-in-Charge and other staff whose resume is approved by BSCDCL can be replaced with prior written approval of BSCDCL and replacement shall be with equivalent or superior candidate only. Decision of Engineer-in-Charge shall be final and binding on the contractor.

Even after approving the site organizational chart, the Engineer-in-Charge due to technical reasons and exigency of work can direct the contractor to depute such

additional staff as in view of Engineer-in-Charge is necessary and having qualification and experience as approved by the Engineer-in-

Charge. The removal of such additional staff from the site shall only be with the prior written approval of Engineer-in-Charge. The contractor shall not

be paid anything extra whatsoever on account of deployment of additional staff and decision of the Engineer-in-Charge shall be final and binding on the contractor.

In case the contractor fails to employ the staff as aforesaid he shall be liable to pay a reasonable amount not exceeding a sum of **Rs. 50,000** (Rupees Fifty Thousand only) for each month of default in the case of each person. The decision of the Engineer-in-charge as to number of Technical Staff to be adequate for the project and the period for which the desired strength of technical staff was not employed by the contractor and as to the reasonableness of the amount to be deducted on this account shall be final and binding on the contractor as to the amount and the contractor's liability to pay the said amount.

#### **VALUABLE ARTICLES FOUND AT SITE**

All gold, silver and other minerals of any description and all precious stones, coins, treasure, relics, antiques and all other similar things which shall be found in, under or upon the site, shall be the property of the owner/ BSCDCL.

#### **MATERIALS OBTAINED FROM DISMANTLEMENT TO BE OWNER'S PROPERTY**

All materials like stone, boulders and other materials obtained during the work of dismantling, excavation etc. will be considered BSCDCL/owner property and such materials shall be disposed off to the best advantage of BSCDCL/owner according to the instructions in writing issued by the Engineer-in-charge.

#### **FURNISHED OFFICE ACCOMMODATION & MOBILITY COMMUNICATION TO BE ARRANGED BY CONTRACTOR**

On acceptance of tender, the contractor at his own cost will construct a suitably equipped office at site with basic facilities such as telephone(s), fax, internet, photocopier, computer(s) and printer(s) along with operator(s), regular electric & drinking water supply and staff carrying vehicles for the supervisory staff with driver, fuel and maintenance etc. as per the requirement of the project. The contractor shall maintain the aforesaid facilities

intact/operational during the tenancy of the contract or maximum up to 6 months beyond the stipulated contractual completion date if the work is delayed due to any reasons. Operation and maintenance cost of all such materials, equipment's / services shall be borne by the contractor.

The contractor shall also make sufficient arrangement for photography/video-graphy so that photographs video can be taken of any specific activity at any point of time. The contractor shall also make arrangement of software like MS Project etc. for the purpose of preparing progress report etc.

The contractor shall make all arrangements for ground breaking ceremony/inaugural function etc. for the project as required and the cost

towards it deemed to be included in his rates/offer. Any expenditure already incurred/to be incurred by BSCDCL, shall be recovered from the contractor.

## **LABOUR LAWS**

### **LABOUR LAWS TO BE COMPLIED BY THE CONTRACTOR**

The contractor shall obtain a valid license under the contract labour (Regulation & Abolition) Act 1970 and the contract labour Act (Regulation & Abolition) Central Rules 1971 and amended from time to time, and continue to have a valid license until the completion of the work including defect liability period. The contractor shall also adhere by the provision of the child labour (Prohibition and Regulation) Act. 1986 and as amended from time to time.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill above requirement shall attract the penal provisions of this contract arising out the resultant for non execution of the work before the commencement of work. No labour below the age of 18 years shall be employed on the work.

### **Payment of wages:**

The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the BSCDCL Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.

The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the BSCDCL contractor's Labour Regulations in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorisedly made,

maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract



Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.

(a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.

(b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned

The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.

The contractor shall indemnify and keep indemnified BSCDCL against payments to be made under and for the observance of the laws aforesaid and the BSCDCL Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.

The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

## **LABOUR SAFETY PROVISION**

The contractor shall be fully responsible to observe the labour safety provisions:

The contractor shall at his own cost take all precautions to ensure safety of life and property by providing necessary barriers, lights, watchmen etc. during the progress of work as directed by Engineer-in-charge

In case of all labour directly or indirectly employed in work for the performance on the contractor's part of this contract, the contractor shall comply with all rules framed by Govt. from time to time for the protection of health and sanitary arrangements for workers.

## **OBSERVANCE OF LABOUR LAWS**

The contractor shall be fully responsible for observance of all labour laws applicable including local laws and other laws applicable in this matter and shall indemnify and keep indemnified BSCDCL against effect or non observance of any

such laws. The contractor shall be liable to make payment to all its employees, workers and sub-contractors and make compliance with labour laws. If BSCDCL or the client/ owner is held liable as "Principal Employer" to pay

contributions etc. under legislation of Government or Court decision in respect of the employees of the contractor, then the contractor would reimburse the amount of such payments, contribution etc. to BSCDCL and/ or same shall be deducted from the payments, security deposit etc. of the contractor.

The Contractor shall submit proof of having valid EPF registration certificate. He shall within 7 days of the close of every month, submit to BSCDCL a statement showing the recoveries of contributions in respect of each employee employed by or through him and shall furnish to BSCDCL such information as the BSCDCL is required to furnish under the provisions of para 36 B of the EPF scheme 1952 to the EPF authorities and other information required by EPFO authorities from time to time. He shall also submit a copy of challan every month in token of proof of having deposited the subscription and contribution of workers engaged on the project.

In case, the contractor is not complying the above provision BSCDCL shall withhold payment to the extent of 4.70% (Four point Seven Zero percent) of the value of the Running Account bill and shall release only after the submission of above mentioned details. If it is incumbent upon BSCDCL to deposit withhold amount with EPF authorities, the withhold amount shall be deposited by BSCDCL with EPF authorities. In such a case BSCDCL shall not refund this withheld amount to the contractor even after the production of EPF registration certificate.

## **MINIMUM WAGES ACT**

The contractor shall comply with all the provisions of the minimum wages Act, 1948, contract labour Act (Regulation & Abolition) 1970, and rules framed there under and other labour laws/local laws affecting contract labour that may be brought into force from time to time.

## **LABOUR CESS**

The rates of the contractor shall be inclusive of labour cess. BSCDCL shall make a recovery @ 1% on account of labour cess from each RA bill of the contractor and labour cess so recovered/deducted shall be deposited with the Labour Board of the concerned state. In case the Labour Board is not established in the state, recovery made by BSCDCL on account of labour cess shall be retained under suspense account and will be deposited with the Labour Board at later date as & when the Labour Board is constituted in the state.

Every contractor, sub-contractor, affiliates, their legal assigns or heirs as the case may, shall be responsible for registration of every Building worker who has completed eighteen years of age but has not completed sixty years of age and who has been engaged in any Building or Other Construction Work for not less than Ninety Days during the preceding twelve months; with the Board / Funds as applicable under various sections of "THE BUILDINGS AND OTHER

Construction workers (regulation of employment and conditions of service) act, 1996 and the building and other

Construction workers' welfare cess act, 1996.

The contractor shall also be responsible for maintaining register of beneficiaries i.e. the workers in such form as may be prescribed by the competent authority & the same shall be kept open at all reasonable times for inspection of relevant authority and officials of client / BSCDCL.

The contractor shall be further responsible for maintaining such register & records; giving such particulars of Building workers employed by him, the work performed by them, the number of hours of work which shall constitute a normal working day, the wages paid to them, the receipts given by them and, such other particulars in such form as may be prescribed by the authority or BSCDCL.

In the event of contractor failing to comply with the above clause(s) in part or in full, BSCDCL, without prejudice to any other rights or remedy available under law or any other clause(s) of contract, shall be at absolute liberty to forfeit any sum or sums that are payable or could become payable on account of execution of contract work and decision of Engineer-in-charge shall be final

& binding in this regard on the contractor.

### **RECOVERY OF COMPENSATION PAID TO WORKMEN**

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, BSCDCL is obliged to pay compensation to a workman employed by the contractor, in execution of the works, BSCDCL will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the BSCDCL under sub-section (2) of Section 12, of the said Act, BSCDCL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the contractor whether under this contract or otherwise. BSCDCL shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to BSCDCL full security for all costs for which BSCDCL might become liable in consequence of contesting such claim.

### **ENSURING PAYMENT AND AMENITIES TO WORKERS IF CONTRACTOR FAILS**

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, BSCDCL is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to

incur any expenditure in providing welfare and health amenities required to be provided under the above said Act or under the BSCDCL Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by BSCDCL's Contractors, BSCDCL will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to any other right or remedy available under this contract, BSCDCL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by BSCDCL to the contractor whether under this contract or otherwise BSCDCL shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the BSCDCL full security for all costs for which BSCDCL might become liable in contesting such claim.

### **CHANGE IN FIRM'S CONSTITUTION TO BE INTIMATED**

Where the contractor is a partnership firm, the prior approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If prior approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 65.0 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 65.0.

### **INDEMNITY AGAINST PATENT RIGHTS**

The contractor shall fully indemnify the BSCDCL from and against all claims and proceedings for or on account of any infringement of any patent rights, design, trademark or name or other protected rights in respect of any construction plant, machine, work or material used for in connection with the works or temporary works.

### **LAW COVERING THE CONTRACT**

This contract shall be governed by the Indian laws for the time being in force.

### **LAWS, BYE-LAWS RELATING TO THE WORK**

The contractor shall strictly adhere by the provisions, for the time being in force, of law relating to works or any regulations and bylaws made by any local authority or any water & lighting agencies or any undertakings within the limits of the jurisdiction of which the work is proposed to be executed. The contractor shall be bound to give to the authorities concerned such notices and take all approvals as may be provided in the law, regulations or bylaws as aforesaid, and to pay all fees and taxes payable to such authorities in respect thereof.

## **CONTRACT AGREEMENT**

The Contractor shall enter into a Contract Agreement with the BSCDCL within

10 (TEN) days from the date of Letter of Award or within such extended time, as may be granted by the BSCDCL failing which no payment shall be released to the contractor. The cost of stamp papers, stamp duty, registration, if applicable on the contract, shall be borne by the Contractor. In case, the contractor does not sign the agreement as above or start the work within 10 (Ten) days of the issue of letter of Award, his earnest money is liable to be forfeited and Letter of award consequently will stand withdrawn.

## **MANNER OF EXECUTION OF AGREEMENT**

The agreement as per prescribed Performa as enclosed shall be signed at the office of the BSCDCL within 10(TEN days) days from the date of issue of Letter of Award. The Contractor shall provide for signing of the Contract, appropriate Power of Attorney and the requisite documents/ materials. Unless and until a formal contract is prepared and executed, the Letter of Award read in conjunction with the Tendering Documents will constitute a binding contract.

The agreement will be signed in five originals and the Contractor shall be provided with one signed original and the other four originals will be retained by the BSCDCL

The Contractor shall provide free of cost to the BSCDCL all the Engineering data, drawings and descriptive materials submitted along with the tender, in at least three (3) copies to form an integral part of the Agreement within seven 7 days after issuing of Letter of Award.

Subsequent to signing of the Agreement, the Contractor at his own cost shall provide to the BSCDCL with at least five (5) true hard bound copies of Agreement within thirty (30) days of its signing.

## **JURISDICTION**

The agreement shall be executed at BHOPAL on non-judicial stamp paper purchased in BHOPAL and the courts in BHOPAL alone will have jurisdiction to deal with matters arising there from, to the exclusion of all other courts.

## **SECTION-4**

### **LABOUR SAFETY, HEALTH & SANITARY RULES AND REGULATIONS INCLUDING FORMS**

#### **LABOUR SAFETY PROVISIONS**

Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and hand holds shall be provided on the ladder and the ladder shall be given an inclination not steeper than  $\frac{1}{4}$  to 1 ( $\frac{1}{4}$  horizontal and 1 vertical).

Scaffolding or staging more than 3.6m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the

outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

Working platforms, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more that 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width & should be suitable fastened as described in (2.0) above.

Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).

Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11.5") for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least  $\frac{1}{4}$ " for each additional 30 cm (1 ft.) of length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of the work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The

contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the Contractor, be paid to compensate any claim by any such person.

## **EXCAVATION AND TRENCHING**

All trenches, 1.2mts.(four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30m.(100 feet) in length or fraction thereof, ladder shall be extended from bottom of the trench to at least 90cm (3feet) above the surface of the ground. The side of the trenches, which are 1.5 m. (5feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger or sides to collapsing. The excavated materials shall not be placed within 1.5m (5 feet) of the edges of the trench or half of the depth of the trench whichever is more.

Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

Demolition - Before any demolition work is commenced and also during the progress of the work following precautions shall be observed:

All roads and open areas adjacent to the work site shall either be closed or suitably protected.

No electric cable or apparatus which is likely to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.

All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.

All necessary personal safety equipments as considered adequate by the Engineer-in-charge should be kept available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate step to ensure proper use of equipment by those concerned. The following safety equipment shall be invariably provided.

Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.

Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eye shall be provided with protective goggles.

- 8.3 Those engaged in welding works shall be provided with welders protective eye shields.

Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe interval.

When workers are employed for works in sewers and manholes, which are in active use, the Contractors shall ensure that the manhole covers are opened

and ventilated at-least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident the public. In addition, the contractor shall ensure that the following safety measures are adhered to:

Entry for workers into the sewer line shall not be allowed except under supervision of the JE or any other higher officer.

At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manholes for working inside.

Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes color in the presence of such gases and gives indication of their presence.

Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.

Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.

The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.

No smoking or open flames shall be allowed near the blocked manhole being cleaned.

The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.



Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-In-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole. Gas masks with Oxygen Cylinder should be kept at site for use in emergency.

Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air-blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at-least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.

The workers engaged for cleaning the manholes / sewers should be properly trained before allowing to work in the manhole.

The workers shall be provided with Gumboots or non sparking shoes, bump helmets and gloves non sparking tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.

Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.

If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.

The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-In-charge regarding the steps to be taken in this regard in an individual case will be final.

The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions should be taken.

- 8.6.1 No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- 8.6.2 Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- 8.6.3 Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

8.6.4.1a) White lead, sulphate or lead work products containing those pigments shall not be used in painting operation except in the form of paste or of paints ready for use.

Measures shall be taken whenever required in order to prevent danger arising from the application of paint in the form of spray.

Measures shall be taken, whenever practicable to prevent danger arising out of dust caused by dry rubbing down and scrapping.

- a) Adequate facilities shall be provided to enable working painter to wash during and on cessation of work.

Suitable arrangements shall be made to prevent clothing put off during working hours being spoiled by painting materials.

8.6.4.3 a) Cases of lead poisoning and of suspected lead poisoning shall be notified and shall be subsequently verified by a medical man appointed by the competent authorities of BSCDCL.

The BSCDCL may require when necessary a medical examination of workers.

Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painters.

When the work is done near any place where there is risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment for all injuries likely to be sustained during the course of the work.

Use of hoisting machines and tackle including their attachment encourage and supports shall conform to the following standard of conditions.

- a) These shall be of good mechanical construction, sound material and adequate strength and free from patent, defects and shall be kept in good working order.

Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding, winch or giving signals to operator.

In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this clause shall be loaded beyond the safe working load except for the purpose of testing.

In case of BSCDCL machines, the safe working load shall be notified by the Engineer-in-Charge. As regards Contractor's machines the Contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get verified by the Engineer-in-Charge.

Motors gearing, transmission electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguard. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary be provided. The worker should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.

All scaffold, ladders, and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.

These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety codes shall be named therein by the contractor.

To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the Contractor shall be open to inspection by BSCDCL Official or their representatives.

Not with standing the above Clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

## **SECTION-5**

# **FORMS AND FORMATS**

FORM XXV

DETAILS OF THE BALANCE WORK IN HAND AS ON \_\_\_\_\_

(UPTO THE PRECEDING MONTH OF SUBMISSION OF BID) WITH BSCDCL

(To be submitted in Envelop-1)

S. No	Name of the Unit/Zone/SBG/RGB	Contract Value	Date of start as per LOI/Contract	Date of completion as per LOI/Contract	Work done up to the preceding month of submission of bid	Balance value of work

**Note:** The bidder shall also include the value of all such works which are awarded to bidder but yet not started up to the preceding month of submission of bid.

FORM XXVI

AFFIDAVIT

(To be submitted by bidder on non-judicial stamp paper of Rs. 100/- (Rupees Hundred only) duly attached by Notary Public)

(To be submitted in Envelop-1)

Affidavit of Mr. ....S/o .....

R/o .....

I, the deponent above named do hereby solemnly affirm and declare as under:

That I am the Proprietor/Authorized signatory of M/s .....

Having its Head Office/Regd. Office at .....

That the information/documents/Experience certificates submitted by M/s..... along with the tender for ..... (NAME OF WORK).....

To BSCDCL Ltd. are genuine and true and nothing has been concealed.

I shall have no objection in case BSCDCL verifies them from issuing authority(ies). I shall also have no objection in providing the original copy of the document(s), in case BSCDCL demand so for verification.

I hereby confirm that in case, any document, information & / or certificate submitted by me found to be incorrect / false / fabricated, BSCDCL at its discretion may disqualify / reject / terminate the bid/contract and also forfeit the EMD / All dues.

I shall have no objection in case BSCDCL verifies any or all Bank Guarantee(s) under any of the clause(s) of Contract including those issued towards EMD and

Performance Guarantee from the Zonal Branch /office issuing Bank and I/We shall have no right or claim on my submitted EMD before BSCDCL receives said verification.

That the Bank Guarantee issued against the EMD issued by (name and address of the Bank) is genuine and if found at any stage to be incorrect / false / fabricated, BSCDCL shall reject my bid, cancel pre-qualification and debar me from participating in any future tender for three years.

I, ....., the Proprietor / Authorised signatory of M/s..... do hereby confirm that the contents of the above Affidavit are true to my knowledge and nothing has been concealed there from..... and that no part of it is false.

Verified at ..... this..... day of .....

DEPONENT

ATTESTED BY (NOTARY PUBLIC)

## APPLICATION FOR EXTENSION OF TIME

(To be completed by the Contractor)

### PART -I

Name of Contractor

Name of the work as given in the Agreement

Agreement No.

Estimated amount put to tender

Date of commencement work as per agreement

Period allowed for completion of work as per agreement

Date of completion stipulated as per agreement

Period for which extension of time has  
been give previously

Extension granted

First extension vide Engineer-in-charge letter No... ..date	Months	Days
---	--------	------

2nd extension vide Engineer-in-charge letter No..... date	Months	Days
---	--------	------

3rd extension vide Engineer-in-charge letter No..... date	Months	Days
---	--------	------

4th extension vide engineer-in-charge letter No..... date	Months	Days
---	--------	------

Total extension previously given

Reasons for which extension have been previously given (copies of the previous application should be attached)

Period for which extension is applied for:

Hindrances on account of which extension is applied for with dates on which hindrances occurred, and the period for which these are likely to last.

Serial No.

Nature of hindrance

Date of Occurrence

Period for which it is likely to last

Period for which extension required for this particular hindrance.

Over lapping period, if any, with reference to item



Net extension applied for

Remarks, if any

Total period for which extension is now applied for on account of hindrances mentioned above ..... Month/ days.

Extension of time required for extra work.

Details of extra work and on the amount involved:

Total value of extra work

Proportionate period of extension of time based on estimated amount put to tender on account of extra work.

Total extension of time required for 11 & 12

Submitted to the Engineer-in-Charges office.

SIGNATURE OF CONTRACTOR

DATE

## APPLICATION FOR EXTENSION OF TIME

### (PART – II)

Date of receipt of application from Contractor for the work in the Engineer-in-charge office.

Acknowledgement issued by Engineer-in-charge vide his letter No.dated

Engineer-in-charge remarks regarding hindrances mentioned by the Contractor.

Serial No.

Nature of hindrance

Date of occurrence of hindrance

Period for which hindrance, is likely to last

Extension of time period applied for by the contractor

Over lapping period, if any, giving reference to items which over lap

Net period for which extension is recommended.

Remarks as to why the hindrance occurred and justification for extension recommended.

Engineer-in-charge recommendations.

The present progress of the work should be stated and whether the work is likely to be completed by the date up to which extension has been applied for. If extension of time is not recommended, what compensation is proposed to be levied under the agreement.

SIGNATURTE OF ENGINEER-IN-CHARGE

**PROFORMA FOR EXTENSION OF TIME**

**P A R T -III**

To

NAME

ADDRESS OF THE CONTRACTOR

SUBJECT:

Dear Sir(s)

Reference your letter No \_\_\_\_\_ dated \_\_\_\_\_ , in connection with the grant of extension of time for completion of the work.....

The date of completion for the above mentioned work, is ..... as stipulated in the agreement, dated .....

Extension of time for completion of the above mentioned work is granted upto\_\_\_\_\_, without prejudice to the right of the BSCDCL to recover compensation for delay in accordance with the provision made in Clause of the said agreement dated the \_\_\_/ \_\_\_/ \_\_\_. It is also clearly understood that the BSCDCL shall not consider any revision in contract price or any other compensation whatsoever due to grant of this extension.

Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.

Yours faithfully,

FOR Bhopal Smart City Development Corporation Ltd.

**PROFORMA OF BANK GUARANTEE IN LIEU OF E M D (TENDER BOND)**  
(Judicial Stamp paper of appropriate value as per stamp Act-of respective state)

Bhopal Smart City Development Corporation Ltd.  
Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh 462023

In consideration of Bhopal Smart City Development Corporation Limited, having its Registered Office at, Near Natraj Petrol Pump Sector A, Berkheda (hereinafter called "BSCDCL" which expression shall unless repugnant to the subject or context include its successors and assigns) having issued Notice Inviting Tender No..... and M/s..... having its Registered Head Office at..... (hereinafter called the "TENDERER") is to participate in the said tender for.....

Whereas BSCDCL, as a special case, has agreed to accept an irrevocable and unconditional Tender Bond Guarantee for an amount of Rs..... valid upto.....from the tenderer in lieu of Cash Deposit of Rs..... required to be made by the tenderer, as a condition precedent for participation in the said tender.

We the ..... (hereinafter called the "BANK") having its Registered, Office at..... and branch office at..... do hereby unconditionally and irrevocably undertake to pay immediately on demand in writing and without demur/protest any amount but not exceeding Rs ..... Any such demand made by BSCDCL shall be conclusive and binding on us irrespective of any dispute or differences that may be raised by the tenderer. Any change in the constitution of the tenderer or the Bank shall not discharge our liability under the guarantee.

We, the..... Bank, lastly undertake not to revoke this guarantee during its currency without the prior consent of BSCDCL in writing and this guarantee shall remain valid upto.....Unless a claim is made within three months from the date of expiry i.e.

..... (three months after the date of expiry), we shall be relieved of our liability under this guarantee thereafter.

FOR AND ON BEHALF OF BANK

PLACE :

DATED :

WITNESS.

1.

2

**PROFORMA OF BANK GUARANTEE (PERFORMANCE)**

(Judicial Stamp paper of appropriate value as per stamp Act-of respective state)

Bhopal Smart City Development Corporation Ltd.  
Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh 462023

Whereas the Bhopal Smart City Development Corporation Limited, having its  
Registered Office at BSCDCL Near Natraj Petrol Pump  
Sector A, Berkheda, Bhopal (hereinafter  
called "BSCDCL" which expression shall include its successors and assigns) having  
awarded a work order/contract / supply order No. dated (hereinafter  
called the contract) to M/s. .... (hereinafter called  
the contractor / supplier) at a total price of Rs..... subject to the terms  
and conditions contained in the contract.

WHEREAS, the terms and conditions of the contract require the contractor to furnish a

Rs....  
..... (Rupees.....  
bank guarantee for .. ) being ..... % of the  
total value of the contract for proper execution and due fulfillment of the  
terms and conditions contained in the contract.

We, the Bank, (hereinafter called the "Bank") do hereby unconditionally and  
irrevocably undertake to pay to BSCDCL immediately on demand in writing and  
without protest/or demur all moneys payable by the contractor/supplier to  
BSCDCL in connection with the execution/supply of and performance of the  
works/equipment, inclusive of any loss, damages, charges, expenses and costs  
caused to or suffered by or which would be caused to or suffered by BSCDCL by  
reason of any breach by the contractor/supplier of any of the terms and conditions  
contained in the contract as specified in the notice of demand made by BSCDCL to the  
bank. Any such demand made by BSCDCL on the bank shall be conclusive evidence of  
the amount due and payable by the bank under this guarantee. However, the  
Bank's liability under this guarantee, shall be limited to Rs..... in the aggregate

and the bank hereby agrees to the following terms and conditions:-

(i) This guarantee shall be a continuing guarantee and irrevocable for all claims of BSCDCL as specified above and shall be valid during the period specified for the performance of the contract including the period of maintenance/warranty i.e. up to.....

(ii) We, the said bank further agree with BSCDCL that BSCDC L shall have the fullest liberty without our consent and without affecting in any manner our obligations and liabilities hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of contract by the contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by BSCDCL against the contractor/supplier under the contract and forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variations or extension being granted to the contractor or for any forbearance, act or omission on the part of BSCDCL or any indulgence by BSCDCL to the contractor or by any such matter or thing whatsoever, which under the law relating to the sureties would, but for this provision, have effect of so relieving us.

This guarantee/undertaking shall be in addition to any other guarantee or security whatsoever BSCDCL may now or at any time have in relation to the

performance of the works/equipment and the company shall have full re-course to or enforce this security in performance to any other security or guarantee which the BSCDCL may have or obtained and there shall be no forbearance on the part of the company in enforcing or requiring enforcement of any other security which shall have the effect of releasing the Bank from its full liability. It shall not be necessary for BSCDCL to proceed against the said contractor/supplier before proceeding against the Bank.

This guarantee/ undertaking shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the supplier/

contractor, but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to BSCDCL in terms thereof are paid by the Bank.

The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the bank in terms hereof, shall not be otherwise effected or suspended by reasons of any dispute or disputes having been raised by the supplier/contractor (whether or not pending before any Arbitrator, Tribunal or Court) or any denial of liability by the supplier/contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to BSCDCL in terms hereof.

We, the said Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of BSCDCL in writing. Unless a claim is made in writing

within three months from the date of expiry of this guarantee i.e.....

(three months after the date of expiry) we shall be relieved from all liabilities under

this guarantee thereafter.

Signed this ..... day of ..... at.....

For and on behalf of Bank

WITNESS.

1. \_\_\_\_\_

2. \_\_\_\_\_

**PROFORMA OF BANK GUARANTEE  
(FOR MOBILIZATION ADVANCE)**

(Judicial Stamp paper of appropriate value as per stamp Act-of respective state)

Bhopal Smart City Development Corporation Limited,  
Near Natraj Petrol Pump, Sector A, Berkheda,  
Bhopal, Madhya Pradesh 462023

1.0 In consideration of the Bhopal Smart City Development Corporation Limited, having its Registered Office at BSCDCL, Near Natraj Petrol Pump, Sector A, Berkheda, Bhopal (hereinafter called "BSCDCL" which expression shall unless repugnant to the subject or context include his successor and assigns) having agreed under the terms and conditions of Contract No..... dated..... made between..... and BSCDCL in connection with..... (hereinafter called "the said contract") to make at the request of the Contractor a Mobilization Advance of Rs..... for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable to BSCDCL, we the ..... Bank Ltd., (hereinafter referred to the "the said Bank") and having our registered office at..... do hereby guarantee the due recovery by BSCDCL of the said advance as provided according to the terms and conditions of the Contract. We..... do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from BSCDCL stating that the amount claimed is due to BSCDCL under the said Agreement. Any such demand made on the..... shall be conclusive as regards the amount due and payable by the..... under this guarantee and..... agree that the liability of the ..... to pay BSCDCL the amount so demanded shall be absolute and unconditional notwithstanding any dispute or disputes raised by the Contractor and notwithstanding any legal proceeding pending in any court or Tribunal relating thereto. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs..... We ..... Bank further agree that BSCDCL shall be the sole judge of and as to whether the amount claimed has fallen due to BSCDCL under the said agreement or whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by BSCDCL on account of the said advance together with interest not being recovered in full and the decision of BSCDCL that the amount has fallen due from contractor or the said Contractor has not utilized the said advance or any part thereto for the purpose of the contract and as to the amount or amounts of loss or damage caused to or suffered by BSCDCL shall be final and binding on us.

We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect till the said advance has been fully recovered and its claims satisfied or discharged and till BSCDCL certify that the said advance has been fully recovered from the said Contractor, and accordingly discharges this Guarantee subject, however, that BSCDCL shall have no claims under this Guarantee after the said advance has been fully recovered, unless a notice of the claims under this Guarantee has been served on the Bank before the expiry of the said Bank Guarantee in which case the same shall be enforceable against the Bank.

BSCDCL shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or indemnity from time to time to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by the



said Contractor or to postpone for any time and from time to time of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing

the said Contract or the advance or securities available to BSCDCL and the said Bank shall not be released from its liability under these presents by any exercise by BSCDCL of the liberty with reference to the matters aforesaid or by reasons of time being given to the said Contractor or any other forbearance, act or omission on the part of BSCDCL or any indulgence by BSCDCL to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so

releasing the bank from its such liability. 5.0 It shall not be necessary for BSCDCL to proceed against the Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which BSCDCL may have obtained or obtain from the Contractor or shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of BSCDCL in writing and agree that any change in the constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

Dated this .....day of.....

For and on behalf of Bank

(NAME AND DESIGNATION)

Dated:

**PROFORMA OF BANK GUARANTEE  
(IN LIEU OF SECURITY DEPOSIT)**

(Judicial Stamp paper of appropriate value as per stamp Act-of respective state)

Bhopal Smart City Development Corporation Ltd.,  
Near Natraj Petrol Pump, Sector A, Berkheda, Bhopal

In consideration of the Bhopal Smart City Development Corporation Ltd., having its

Registered Office at \_\_\_\_\_ Near Natraj Petrol Pump Sector A,  
Berkheda(hereinafter called "BSCDCL") which expression shall include its successors  
and assigns having awarded to M/s..... (hereinafter called "the  
Supplier/Contractor") which expression shall wherever the subject or context so permits  
includes its successors and assigns) a Contract in terms inter-alia of BSCDCL's letter  
No..... dated..... and the Contract/Purchase Conditions of BSCDCL  
and upon the condition of the Supplier/Contractor furnishing Security for the  
performance of the Supplier's obligations and /or discharge of the  
contractor's/supplier's liability under and/or in connection with the said supply contract  
upto \_\_\_\_\_ a sum of Rs.....  
(Rupees..... only)

We,..... ((hereinafter called "The Bank") which expression shall include its  
successors and assigns) hereby undertake and guarantee payment to BSCDCL forthwith  
on the same day on demand in writing and without protest or demur of any and all  
moneys payable by the supplier/contractor to BSCDCL under, in respect or in connection  
with the said contract inclusive of all the losses, damages, costs, charges and expenses  
and other moneys payable in respect of the above as specified in any notice of demand  
made by BSCDCL to the Bank with reference to this guarantee up to  
and aggregate limit of Rs.....(Rupees.....only) and the bank hereby  
agree with BSCDCL that:

This Guarantee shall be continuing guarantee and shall ..... remain valid and  
irrevocable for all claims of BSCDCL and liabilities of Supplier/Contractor arising upto and  
until midnight of.....

This Guarantee shall be in addition to any other Guarantee or Security whatsoever that  
BSCDCL now or at any time have in relation to the Supplier's obligations/liabilities  
under and/or in connection with the said supply/contract, and BSCDCL shall have full  
authority to take recourse or to enforce this Security in  
preference to any other Guarantee or Security which BSCDCL may have or obtain and  
no  
forbearance on the part of BSCDCL in enforcing or requiring enforcement of any other  
Security shall have the effect of releasing the Bank from its liability hereunder.

BSCDCL shall be at liberty without reference to the Bank and without affecting the full  
liability of the Bank hereunder to take any other security in respect of the  
Supplier's/Contractor's obligations and/ or liabilities under or in connection with the said  
supply/contract or to grant time and / or indulgence to the supplier / contractor or to  
increase or otherwise vary the prices or the total contract value or to release or to forbear  
from enforcement of all or any of the conditions under the said supply / contract and / or  
the remedies of BSCDCL under any other security/securities now or hereafter held by  
BSCDCL and no such dealings, increase(s) or other indulgence(s) or arrangement(s) with  
the supplier / contractor or releasing or forbearance whatsoever shall have the effect of  
releasing the Bank from its full liability to BSCDCL hereunder or prejudicing rights of

BSCDCL against the Bank. This Guarantee shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the supplier / contractor but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to BSCDCL in terms thereof.

5. The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the Bank in terms hereof shall not be otherwise affected or suspended by reason of any dispute or disputes having been raised by the supplier /contractor (whether or not pending before any Arbitrator, Tribunal or Court) or any denial or liability by the supplier/ contractor stopping/ preventing or purporting to stop or prevent any payment by the Bank to BSCDCL in terms thereof.

The amount stated in any notice of demand addressed by BSCDCL to the Guarantor as liable to be paid to BSCDCL by the supplier/contractor or as suffered or incurred by BSCDCL on account of any losses or damages, costs, charges and / or expenses shall as between the Bank and BSCDCL be conclusive of the amount so liable to be paid to BSCDCL or suffered or incurred by BSCDCL as the case may be and payable by the Guarantor to BSCDCL in terms hereof subject to a maximum of Rs ..... (Rupees ..... only),

Unless demand or claim under this Guarantee is made on the Guarantor in writing within three months form the date of expiry of the Guarantee i.e upto ..... the Guarantor shall be discharged from all liabilities under this Guarantee there under.

Notwithstanding anything contained herein before our liability under this guarantee is restricted to Rs . ..... (Rupees .....only). This guarantee will expire on..... Any claim under this Guarantee must be received by us within three months from the date of expiry i.e. .... (date, three months after the expiry date) and if no such claim has been received by us by that date all your rights under this guarantee will cease.

For and on behalf of the Bank

Place

Date

WITNESS:

1.

2.

**PROFORMA OF BANK GUARANTEE**  
**(FOR MOBILIZATION ADVANCE WITH INTEREST BEARING)**  
(Judicial Stamp per Stamp Act - paper of appropriate value as respective state)

Bhopal Smart City Development Corporation Limited,  
Bhopal, Pin- 462023

In consideration of the Bhopal Smart City Development Corporation Limited., having its Registered Office at Bhopal -462023 (hereinafter called "BSCDCL" which expression shall unless repugnant to the subject: or context Include his successor and assigns) having agreed under the terms and conditions of Contract No. dated made between (name of the contractor) and BSCDCL in connection with (name of work) (hereinafter called "the said contract") to make at the request of the Contractor a Mobilization Advance of Rs. \_\_\_\_\_ carrying interest @ ... % p.a. for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable to BSCDCL, we the Bank (hereinafter referred to the "the said Bank") and having our registered office at do hereby guarantee the due recovery by BSCDCL of the said advance alongwith interest as provided according to the terms and conditions of the contract. We ...

do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely, on a demand from BSCDCL stating that the amount claimed is due to BSCDCL under the said Agreement. Any such demand made on the said bank shall be conclusive as regards the amount due and payable by the said contractor under this guarantee and agree that the liability of the said bank to pay BSCDCL the amount so demanded shall be absolute and unconditional notwithstanding any dispute or disputes raised by the Contractor and notwithstanding any legal proceeding pending in any court or Tribunal relating thereto. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs ... inclusive of interest @ .....% p.a.

We the said bank further agree that BSCDCL shall be the sole judge of and as to whether the amount claimed has fallen due to BSCDCL under the said agreement or whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by BSCDCL on account of the said advance together with interest not being recovered in full and the decision of BSCDCL that the amount has fallen due from' contractor or the said Contractor has not utilized the said advance or any part thereto for the purpose of the contract and as to the amount or amounts of loss or damage caused to or suffered by BSCDCL shall be final and binding on us.

We, the said Bank, further agree that the Guarantee herein contained shall remain

in full force and effect till the said advance has been fully recovered and its claims satisfied or discharged and till BSCDCL certify Contractor, and accordingly discharges this Guarantee subject, however, that BSCDCL shall have no claims under this Guarantee unless a notice of the claims under this Guarantee has been served on the

Bank before the expiry of the said Bank Guarantee in which case the same shall be enforceable against the Bank.

BSCDCL shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or indemnity from time to time to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by the said Contractor or to postpone for any time and from time to time of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing the said Contract or the advance or securities available to BSCDCL and the said Bank shall

not be released from its liability under these presents by any exercise by BSCDCL of the liberty with reference to the matters aforesaid or by reasons of time being given to the said Contractor or any other forbearance, act or omission on the part of BSCDCL or any indulgence by BSCDCL to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the bank from its such liability.

It shall not be necessary for BSCDCL to proceed against the Contractor before proceeding against the Bank and Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which BSCDCL may have obtained or obtain from the Contractor or shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of BSCDCL in writing and agree that any change in the constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

Dated this..... day of.....

Place:

Date:

Witness:

1.

**FORM FOR GUARANTEE BOND  
FOR ANTI-TERMITE TREATMENT**

THIS AGREEMENT made this\_\_\_\_ day of Two thousand \_\_\_\_\_ between M/s\_\_\_\_\_ (hereinafter called the guarantor of the one part and M/s Bhopal Smart City Development Corporation Limited, hereinafter called the BSCDCL hereinafter called the OWNER of the other part.

Whereas this agreement is supplementary to the contract hereinafter called the contract dated\_\_\_\_\_ made between the guarantor of the one part and National Buildings Construction Corporation Ltd., of the other part whereby the contractor inter-alia, understood to render the buildings and structures in the said contract recited, completed, termite proof. And whereas the guarantor agreed to give a guarantee to the effect that the said structure will remain termite proof for TEN YEARS to be so reckoned from the date after the maintenance period prescribed in the contract expires.

During this period of guarantee the guarantor shall make good all defects and for that matter shall replace at his risk and cost such wooden member as may be damaged by termite and in case of any other defect being found, he shall render the building termite proof at his cost to the satisfaction of the Engineer-in-charge and shall commence the works of such rectification within seven days from date of issuing notice from the Engineer-in-Charge calling upon him to rectify the defects falling which the work shall be got done by BSCDCL/ OWNER by some other contractor at the guarantor's cost and risk and in the later case the decision of the Engineer-in-charge as to the cost recoverable from the guarantor shall be final and binding.

That if the Guarantor fails to execute the Anti-Termite treatment or commits breaches hereunder then the Guarantor will indemnify BSCDCL against all losses damages, cost expenses or otherwise which may be incurred by him by reasons of any default on the part of the guarantor in performance and observance of this supplemental Agreement. As to the amount of loss and or damage and/or cost incurred by BSCDCL/ OWNER decision of the Engineer-in-charge will be final and binding on the parties.

In witness where of these presents have been executed by the Guarantor\_\_\_\_\_ and by\_\_\_\_\_ for and on behalf of BSCDCL on the day of month and year first above written.

Signed sealed and delivered by (Guarantor)

IN THE PRESENCE OF: 1.

2.

Signed for and on behalf of BSCDCL by/ in presence of:

1.

2.

**GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS  
AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS**

The agreement made this ..... day of ..... Two thousand One and ..... between ..... (hereinafter called Guarantor of the one part) and the BSCDCL (hereinafter called the Execution Agency of the other part).

WHEREAS this agreement is supplementary to a contract(hereinafter called the Contract), dated ..... and made between the GUARANTOR OF THE ONE part and the BSCDCL of the other part, whereby the Contractor, inter-alia, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS the Guarantor agreed to give a guarantee to the effect that the said structures will remain water and leak proof for ten years from the date of handing over o the structure of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

Misuse of roof shall mean any operation, which will damage proofing treatment, like chopping of fire wood and things of the same nature which might cause damage to the roof.

Alternation shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts

The decision of the Engineer-in-Charge with regard to cause of leakage shall be final

During this period of guarantee, the Guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer-in-Charge calling upon him to rectify the defects failing which the work shall be got done by the BSCDCL by some other

Contractor at the guarantor's cost and risk. The decision of Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the water proofing or commits breach there-under, then the Guarantor will indemnify the principal and his successors against all laws damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and/ or cost incurred by the BSCDCL, the decision of the Engineer-in-Charge will final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligator,,,,,.....and by ..... And for and on behalf of the BSCDCL on the day, month and year first above written.

Signed, sealed and delivered by Obligator in the presence of-

- 1.
- 2.

Signed for and on behalf of the BSCDCL by \_\_\_\_\_

In presence of:

- 1.
- 2.



**PROFORMA OF  
INDENTURE FOR SECURED ADVANCE OR CREDIT**

THIS INDENTURE made this day of \_\_\_\_\_ Between \_\_\_\_\_

(hereinafter called the contractor) which expression shall where the Context as admits or implies be deemed to include his executor/administrators and assign of the one part and National Buildings Construction Corporation Ltd., having its Registered Office at BSCDCL, Bhopal (hereinafter called the Engineer) which expression shall where the context so admits or implies be deemed to include its successors and assign of the other part.

Whereas by an agreement dated (hereinafter called the said agreement). The Contractor has agreed to construct.....

And whereas the Contractor has applied to the Engineer that he may be or be given credited for materials brought by him to the site of the work subject to the said agreement for use in construction of the work.

NOW THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) paid to the contractor by the Engineer. The receipt where the Contractor hereby acknowledges and of such advance or credited (if any) as may be made to him as aforesaid the Contractor hereby covenants and agrees with The Engineer and declares as follows:

That all sums given as advance or credit by The Engineer to the Contractor as aforesaid shall be employed by the Constructor in or toward the execution of the said works and for no other purpose whatsoever.

That the material for which the advance or credit is given are offered to and accepted by The Engineer as security and are absolutely the Contractor's own property and free from encumbrances of any kind the Contractor will not make any application for or receives further advance or credit on the security or material which are not absolutely his own property and free from encumbrances of any kind and the Contractor shall indemnify The Engineer against any claims to any material in respect of which advance or credit has been made to him as aforesaid.

That the said material and all other material on the security of which any further advance or advances or credit may be given as aforesaid (hereinafter called the said materials) shall be used by the Contractor s solely in the execution of the said works in accordance with the direction of the Engineer and in terms of said agreement.

That the Contractor shall make at his own cost all necessary and adequate arrangement for the proper safe custody and protection against all risks of the said material and that until used in the construction as aforesaid the material shall remain at the site of the said works in Contractor's custody and on his responsibility and

shall at all times be open to inspection by The Engineer. In the events of the materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in greater degree than in due to reasonable use and wear thereof the Contractor will replace the same with other materials of likequality of repair and make good the same as required by The Engineer.

That said material shall not on any account be removed from the site of work except with the written permission of The Engineer.

That the advance shall be repayable in full when or before Contractor receives payment from The Engineer of the price payable to him for the said work under the term and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done then on the occasion of each payment The Engineer will be at liberty to make a recovery from the Contractor's bill from such payments by deducting there from the value of the said materials than actually used in the contraction and in respect of which recovery has not been made previously. The value of this purpose being determined in respect of each description of materials at the rates at which the amounts of the advance as made under these presents was calculated.

That if the Contractor shall at any time make at any default in the performance of observance in respect of any of the terms and provisions of the said agreement or of that provisions the total amount of the advance or advances that may still be owing to The Engineer, shall immediately on the happening of such default be repayable by the Contractor to The Engineer together with interest thereon at 12% p.a. from the date of respective dated to such advance or advances to the date of payment and with all costs. Damages and expenses incurred by The Engineer in or for recovery hereof or the Contractor hereby covenants and agrees with The Engineer to repay and pay the same respective to him accordingly.

That the Contractor hereby charges all the said materials with the repayment to The Engineer of all sums advances or credit as aforesaid and all costs. Charges, damages and expenses payable under these presents PROVIDED ALWAYS it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and wherever the covenant for payment and repayment herein before contained shall be become enforceable and the money owing shall not be paid in accordance therewith. The Engineer may at any time thereafter adopt all or any of the following courses he may deem best:

Seize the utilize the said material or any part thereof in the completion of the said works in accordance with the provision in that behalf contained in the said agreement debating the Contractor with the actual cost of effecting such completion and the amount due in respect of advance or credit under these presents and crediting the Contractor with value of work done as if he has carried it out in accordance with the said agreement and the rates thereby provided if the balance is against the Contractor is to pay the same to the engineer on demand.

Remove and sell by public action the seized materials or any part thereof and out of the money arising from the sale repay the engineer under these presents and pay over the surplus (if any) to the Contractor.

Deduct all or any part of the moneys owing from any sums due to the contractor under said agreement.

Expect in the event of such default on the part of contractor as aforesaid, interest on the said advance shall not be payable.

That in the event of conflict between the provisions of these presents and the said agreements, the provision of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents, the settlement of which has not been hereinbefore expressly provided for the same shall so far as is lawful be subject to jurisdiction of BHOPAL courts only.

IN WITNESS whereof the said the engineer and the contractor hereunto set their respective hands and seals the day year first above written.

Signed Sealed and delivered by

Contractor

The Engineers

## AGREEMENT FORM

This agreement made this day of (Month) (Year), between the **Bhopal Smart City Development Corporation Limited (BSCDCL)**, a company incorporated under the Companies Act, 1956 having its Registered Office at BSCDCL, Bhopal 462023 (hereinafter referred to as the "BSCDCL" which expression shall include its administrators, successors, executors and assigns) of the one part and **M/s(NAME OF CONTRACTOR)** (hereinafter referred to as the 'Contractor' which expression shall unless the context requires otherwise include its administrators, successors, executors and permitted assigns) of the other part.

WHEREAS, BSCDCL, has desirous of construction of **(NAME OF WORK)** (hereinafter referred to as the "PROJECT") on behalf of the **(NAME OF OWNER/MINISTRY)** (hereinafter referred to as "OWNER"), had invited tenders as per Tender documents vide NIT No. \_\_\_\_\_.

AND WHEREAS **(NAME OF CONTRACTOR)** had participated in the above referred tender vide their tender dated \_\_\_\_\_ and BSCDCL has accepted their aforesaid tender and award the contract for (NAME OF PROJECT) on the terms and conditions contained in its Letter of Intent No. \_\_\_\_\_ and the documents referred to therein, which have been unequivocally accepted by **(NAME OF CONTRACTOR)** vide their acceptance letter dated \_\_\_\_\_ resulting into a contract.

NOW THEREFORE THIS DEED WITNESSETH AS UNDER:

### ARTICLE 1.0 – AWARD OF CONTRACT

#### SCOPE OF WORK

BSCDCL has awarded the contract to **(NAME OF CONTRACTOR)** for the work of **(NAME OF WORK)** on the terms and conditions in its letter of intent No.

\_\_\_\_\_ dated \_\_\_\_\_ and the documents referred to therein. The award has taken effect from **(DATE)** i.e. the date of issue of aforesaid letter of intent. The terms and expressions used in this agreement shall have the same meanings as are assigned to them in the "Contract Documents" referred to in the succeeding Article.

### ARTICLE 2.0 – CONTRACT DOCUMENTS

The contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached herewith (hereinafter referred to as "Contract Documents").

BSCDCL Notice Inviting Tender vide No. \_\_\_\_\_ date \_\_\_\_\_ and BSCDCL's tender documents consisting of:

General Conditions of Contract (GCC) along with amendments/errata to GCC (if any) issued (Volume-I).

Special Conditions of Contract including Appendices & Annexures, Volume-II.

Bill of Quantities along with amendments/corrigendum of schedule items, if any (Volume-II).

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**(NAME OF CONTRACTOR)** letter proposal dated \_\_\_\_\_ and their subsequent communication:

Letter of Acceptance of Tender Conditions dated \_\_\_\_\_

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BSCDCL's detailed Letter of Intent No. \_\_\_\_\_ dated \_\_\_\_ including Bill of Quantities. Agreed time schedule, Contractor's Organization Chart and list of Plant and Equipment's submitted by Contractor.

All the aforesaid contract documents referred to in Para 2.1 and 2.2 above shall form an integral part of this Agreement, in so far as the same or any part thereof conform to the tender documents and what has been specifically agreed to by BSCDCL in its Letter of Intent. Any matter inconsistent therewith, contrary or repugnant thereto or deviations taken by the Contractor in its "TENDER" but not agreed to specifically by BSCDCL in its Letter of Intent, shall be deemed to have been withdrawn by the Contractor without any cost implication to BSCDCL. For the sake of brevity, this Agreement along with its aforesaid contract documents and Letter of Intent shall be referred to as the "Contract".

### **ARTICLE 3.0 – CONDITIONS & CONVENANTS**

The scope of Contract, Consideration, terms of payments, advance, security deposits, taxes wherever applicable, insurance, agreed time schedule, compensation for delay and all other terms and conditions contained in BSCDCL's Letter of Intent No. \_\_\_\_\_ dated \_\_\_\_\_ are to be read in conjunction with other aforesaid contract

documents. The contract shall be duly performed by the contractor strictly and faithfully in accordance with the terms of this contract.

The scope of work shall also include all such items which are not specifically mentioned in the Contract Documents but which are reasonably implied for the satisfactory completion of the entire scope of work envisaged under this contract unless otherwise specifically excluded from the scope of work in the Letter of Intent.

Contractor shall adhere to all requirements stipulated in the Contract documents.

Time is the essence of the Contract and it shall be strictly adhered to. The progress of work shall conform to agreed works schedule/contract documents and Letter of Intent.

This agreement constitutes full and complete understanding between the parties and terms of the presents. It shall supersede all prior correspondence to the extent of inconsistency or repugnancy to the terms and conditions contained in Agreement. Any modification of the Agreement shall be effected only by a written instrument signed by the authorized representative of both the parties.

The total contract price for the entire scope of this contract as detailed in Letter of Intent is Rs. \_\_\_\_\_ (Rupees

\_\_\_\_\_ only), which shall be governed by the stipulations of the contract documents.

#### **ARTICLE 4.0 – NO WAIVER OF RIGHTS**

Neither the inspection by BSCDCL or the Engineer-in-Charge or Owner or any of their officials, employees or agents nor order by BSCDCL or the Engineer-in-Charge for payment of money or any payment for or acceptance of, the whole or any part of the work by BSCDCL or the Engineer-in-Charge nor any extension of time nor any possession taken by the Engineer-in-Charge shall operate as waiver of any provisions of the contract, or of any power herein reserved to BSCDCL, or any right to damage herein provided, nor shall any waiver of any breach in the contract be held to be a waiver or any other or subsequent breach.

#### **ARTICLE 5.0 – GOVERNING LAW AND JURISDICTION**

The Laws applicable to this contract shall be the laws in force in India and jurisdiction of BHOPAL Court (s) only.

Notice of Default

Notice of default given by either party to the other party under the Agreement shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto, if delivered against acknowledgment due or by FAX or by registered mail duly addressed to the signatories at the address mentioned herein above.

IN WITNESS WHEREOF, the parties through their duly authorized representatives have executed these presents (execution whereof has been approved by the Competent Authorities of both the parties) on the day, month and year first above mentioned at BHOPAL.

For and on behalf of:

For and on behalf of:

(NAME OF CONTRACTOR) (M/s Bhopal Smart City Development Corporation)

WITNESS:

WITNESS:

1.

1.

**SECTION-6**

**SPECIAL CONDITION  
OF CONTRACT**



## **SPECIAL CONDITIONS OF CONTRACT (SCC)**

### **GENERAL-**

1. The following special conditions shall be read in conjunction with General conditions of contract. If there are any provisions in these Special Conditions, which are at variance with the provisions of General Conditions of Contract, the provisions in the Special Conditions shall take precedence.
  
2. Where any portion of Special Conditions of Contract is repugnant to or at variance with any provision of the instructions to Tenderer and General Conditions of Contract and / or the other documents forming part of the contract then unless a different intention appears the provision of the Special Conditions of Contract shall be deemed to override the provisions of the general conditions of contract and / or the other documents forming part of the contract only to the extent such repugnant/various in the special conditions of contract as are not possible of being reconciled with the provisions in the special conditions of contract as are not possible of being reconciled with the provision with instructions to Tenderer or General Conditions of contract and / or the other documents from part of the contract.
  
3. Structural Drawings shall be prepared by bidder and the same shall got weighted by any reputed institute like MANIT or any other institute.
  
4. Working drawing shall be according to the drawing given in the Tender document.
  
5. Items mentioned in the BOQ may vary or any changes is needed then it should bring to the attention of BSCDCL.
  
6. Working drawings are given by BSCDCL in tender document; if any deviations found and correction required then it should be brought to BSCDCL for rectification.
  
7. The items which are missing or not defined in the given BOQ in this Tender Document, then the contractor has to submit the items for approval to BSCDCL.
  
8. The contractor has to submit sample of the items defined in BOQ the same to be approved by BSCDCL, before use.
  
9. Internal wiring work should be done as per UADD/MPPWD/CPWD/MPPWD specifications.
  
1. Quote should be in percentage higher or below on the SOR Rates the same is to quoted in the form of decimal only. For example if contractor wants to quote 5

percent higher then he have to quote 1.05 and if he wants to quote 5 [percent below he have to quote 0.95 in given column of financial bid sheet.

**Instructions for financial bid submission-**

1. Financial Bid format is uploaded in Excel Format in [www.mpeproc.gov.in](http://www.mpeproc.gov.in). At the time of financial bidding, bidder is requested to download the file, and update the same.
2. There are five different excel sheets in financial bids CIVIL\_PLUMBING\_FIRE\_PWD\_SOR, CIVIL\_PLUMBING\_FIRE\_UADD\_SOR, CIVIL\_PLUMBING\_FIRE\_NON\_SOR, ELECTRICAL\_PWD and ELECTRICAL\_NON\_SOR.
3. For bidding of SOR items bidder need to quote %high or %below the SOR rates, eg. In case bidder wants to quote 5% above the SOR rate quote 1.05 or 5% below the rate quote 0.95.
4. In case of Non SOR items bidder can quote for individual item rates in respective financial bid sheet.
5. Bidders are requested to check final figure in all the totals of all sheets. BSCDCL is not responsible for errors in the financial bid document.
6. Bidders are required to upload the updated financial bid in the prescribed excel format in the [www.mpeproc.gov.in](http://www.mpeproc.gov.in) at the time of final financial bid submission.

**SECTION-7**

**TECHNICAL SPECIFICATIONS**

## **SPECIFICATION FOR WORK:-**

1. Item referred as DSR item, CPWD Specification should be followed.
2. Item referred as SOR item, M P CPWD Specification should be followed.
3. Item referred as Land-DSR item, CPWD Specification should be followed.
4. Item referred as ELE-DSR item, CPWD Specification should be followed.

### **5. For Non-Schedule item, following specification should be followed:-**

#### **1) DEMOLITION, DISMANTLING AND REMOVAL WORK**

- a) All special tools & equipment required for careful demolition and dismantling shall be arranged so that no harm is caused to any part of the Heritage structure.
- b) The work shall be carried out under the supervision of a traditional craftsmen, so that the method of carrying out the work can be decided by him, knowing what the under layers may be and at what strength the demolition of dismantling should be carried out so as not to harm the structural integrity of the heritage structure.
- c) Proper sheeting arrangement of the monument shall be done such that the work and the debris falling while carrying out the works does not harm or injure anybody and the dust doesn't spread in the adjoining areas.
- d) Traditional crafts person shall inspect all the works while it is being carried out and shall inform the Engineer if any structural or other damage or cracks are seen to the monument when the outer layers/elements/flooring are removed.

#### **2) SPECIFICATION FOR LIME MORTAR**

##### **SCOPE:**

This Specification covers materials, proportions, preparation and storage of lime mortars.

##### **MATERIALS:**

Lime : --Lime A, B and C class shall be used in the preparation of mortar and shall conform to lime specification no. 3.3 and relevant IS codes.

Aggregates : --Any of the following or their mixture in the given proportion shall be used.

Sand : --Sand should be angular to sub angular moderately sorted aggregate of nominal size of 150um to 1.18mm. River sand shall not be used.

Water : --For all mortars water used shall be free from mud, clay, acidic, basic or organic impurities and shall be drinkable.

### **PROPORTIONS:**

Different types of ratio shall be used for works as per different trades mentioned in BOQ in which the quantity of lime is based on standard lime.

The volume of lime for purpose of the table in lime specifications shall be on dry hydrated lime basis. Where Quick lime is used the ratio shall be worked out accordingly, so as to provide the necessary quantity of dry hydrated lime.

### **PREPARATION OF MORTAR:**

Slaking of lime: -- Quick Lime shall be properly slaked and then used. The hydrated lime can be used as such for making mortar or may be run into putty and then used for making mortar (In contrast to Quick lime.)

### **TANK SLAKING:**

Two or preferably three tanks lined with stone or brick large enough to permit, stirring and hoeing shall be prepared (generally tanks suitable for 5 quintals or 10 quintals of quick lime are used in practice).

One of these shall be at the higher level and about 0.5 m deep and the remaining about 0.7 to 0.8 m, deep at lower level such that the contents of higher tank shall flow into the lower tanks by gravity.

The upper tank shall be filled to half its depth with water. Quick lime shall be gradually added till it fills the entire bottom to about half the depth of water. (Never add water to lime). While quick lime is being added it shall be constantly stirred and hoed so as to break up the lumps. No part of the lime shall be allowed to expose above water level. As the lime slakes with evolution of heat temperature begins to rise and more lime or water may be added till the required temperature is reached and that temperature should be maintained by the addition of more lime or water till all the lime apparently has slaked, the stirring and hoeing shall be continued during the above process and for some period even after the slaking is apparently over.

### **MATURING:**

After the lime has cooled it shall be transferred to the lower tank allowing it to flow through I.S. sieve size 1.18mm, more water shall be added if required and it shall be left undisturbed as under Class B lime for minimum of 12 hours and be used in seven (7) days. The putty shall be allowed to mature but not allowed to dry out till it is used.

### **Making Putty from hydrated lime:**

The putty shall be obtained by adding hydrated lime to water in a tank and stirring to the consistency of cream and allowing to stand as under:

Class A lime = Not more than 12 hours.

Class B lime = Minimum for 2 days.

Class C lime = Minimum for 2 days for mortar used for finishing coat of plaster and minimum of 16 hours for mortar used for other purposes.

The putty shall be allowed to mature but not allowed to dry out till it is used.

### **Making of coarse stuff:**

Manual mixing: -- After the lime has matured as specified above, more water shall be added and the putty stirred, till milk of lime is obtained. The fine aggregate shall be added with a whirling motion of hand so that the aggregate falls evenly in the tank. The milk of lime shall be stirred and hoed continuously till the required quantity of fine aggregate is added.

### **Mortar mill (Gharat) Mixing: -**

Quick lime shall not be used directly while dry hydrated lime can be used directly for making mortar. Putty or dry hydrated lime and fine aggregates in required proportions shall be put along with water in the Gharat spreading uniformly all along its circumference and ground till a mortar of uniform colour and desired consistency is obtained. As grinding is done the mixture shall be continuously raked and turned over and over specially from corners and sides. Mortar shall be ground not less 180 revolutions or for 1/2 hours minimum, considering a Gharat to have 15 rpm.

**Mortar for final coat of plaster:** -- It shall be ground for a second time after an interval of 2 days for class C limes.

### **STORAGE OF MORTAR:**

Lime mortars prepared from Class A and Class B limes shall be used up as soon as possible after mixing but not later than 12 hours for Class A limes from the time of first grinding and 2 days for Class B limes from the time of making Putty or first grinding as the case may be. Mortars from class C limes can be used for periods longer than 3 days after the making of mortar provided they are protected from drying out.

### **REJECTION OF MORTAR:**

Dried out lime will not be used under any circumstances.

Mortar not found in accordance with the Specifications above and unsuitable according to field and laboratory tests of lime mortar shall be rejected. The Contractor at his own cost shall remove rejected mortar from the site of work within 24 hours.

## **Lime Kara**

### **Item: Lime Kara Finish 3 to 5 MM thickness**

Providing and application of Lime Kara of 1:2 (1 slaked & sieved Lime: 2 Zikki powder) on Lime Surkhi / Lime rock sand plastered wall surfaces, with thickness between 3 to 6 MM including organic additives, as per traditional practices. Zikki powder shall be free of any impurities, lumps, etc. The preparation of mortar is to be done following traditional practice includes using chakki/garat (wet grinding of lime and Zikki powder by heavy stone mill / chakki/garat), application shall be done in 2 layers, first base layer shall be of 2 to 3 MM thick, Second layer shall be of not more than 2 mm and should be done with a gap of minimum 7 days of previous layer and not more than 12 days from previous layer. Lime shall be slaked minimum for 60 days in separate tanks, with repeated process of sieving with muslin cloth and changing water every 2 to 3 days. Only Fat Lime / non hydraulic shall be used and should be free of any impurities. Preparation of kara (mortar) shall be done in small batches. Final layer of Kara shall be cured and traditional process of rubbing & polishing shall be done by expert craftsman till desired finish is not achieved on the surface. Post application, Surface shall be free from any kind of hairline cracks, undulations, patchy finish. Finished surface shall be free from any powder / chalk on the surface. Item also includes all lead and lift, establishing workyard / chakki, scaffolding, formwork tools and implements etc.

#### **Note:**

- 1) Before application of the Kara, base lime plaster shall be free from any cracks, bulge or undulations. Lime plaster shall be well cured and should be 60 days old.
- 2) Inspection of finished Kara surface shall be done after 1 month of application.
- 3) Item shall be measured for surface of application in Square Meters.

### **3) TREATMENT AROUND THE ROOTS**

#### **SCOPE:**

The work covered under this specification includes opening up of all layers in plan and elevation, excavation /removal of the earth, cutting and removal of the trees with its roots and applying & pouring in the plinth, for stopping the growth of trees in earth or structure.

#### **GENERAL:**

The treatment shall be provided under the supervision of experienced traditional craftsmen and only the traditional materials should be used.

## **MATERIALS:**

Lime :- Lime A, B and C Class shall be used and shall be in confirmation with the lime specifications and as suggested by traditional craftsmen.

## **TREATMENT:**

Opening up of all layers in plan, elevation and excavation shall be done around the trees up to the depth till roots are found. Excavation shall be done in plan areas up to the roots wherever the growth is seen. Cutting and removal of all roots from earth and ensure that no roots remain in the earth. Engineer shall inspect this. Hot Tar shall be applied to the cut ends of the roots, which are not removable, and Hot lime slurry shall be poured around the roots. This work has to be executed under strict supervision of traditional craftsmen.

Refilling shall be done by using earth in layers of 200mm. thickness with compaction in pits. After refilling hot lime slurry shall be poured on the top surface.

## **MEASUREMENT & PAYMENT:**

Measurement shall be done in Sq.M. for the plan in case of growth or elevation in case of building surface area as applicable and excavated or opened for the treatment only. The excavation shall be paid separately.

The depth should not be considered for payment purpose thus the payment cannot be made in cubic meters.

## **4) SPECIFICATION FOR SEALANT**

The sealants of approved grade and color shall only be used. The silicone for perimeter joints (between Aluminum section and RCC/Stone masonry) shall be of make approved by the Engineer in Charge.

## **METHOD OF APPLICATION**

**Surface Preparation:** Clean all joints and glazing pockets by removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.

**Masking:** Areas adjacent to joints shall be masked to ensure neat sealant lines. Masking tape shall not be allowed to touch clean surfaces to which the silicone sealant is to adhere. Tooling shall be completed in one continuous stroke immediately after sealant application and before a skin forms and masking shall be removed immediately after tooling.

**Application:** Install backer rod of appropriate size and apply silicone sealant in a continuous operation using a positive pressure adequate to properly fill and seal the joint. The silicone sealant shall be tooled with light pressure to spread the sealant against



backing material and the joint surfaces before a skin forms. A tool with convex profile shall be used to keep the sealant within the joint. Soap or water shall not be used as a tooling aid. Remove masking tape as soon as silicone joint is tooled.

**Tolerance:** A tolerance of + 3 mm shall be allowed in the width of silicone joints. The depth of the joints at throat shall not be less than 6 mm.

## **5) SPECIFICATION FOR PANELLED GLAZED OR PANELLED AND GLAZED SHUTTERS**

Pannelled or glazed shutters for doors, windows, ventilators and cupboards shall be constructed in the form of timber frame work of stiles and rails with panel inserts of timber, plywood, block board, veneered particle board, fiber board wire gauze or sheet glass. The shutters may be single or multi pannelled, as shown in the drawings or as directed by the Engineer-in-Charge. Timber for frame work, material for panel inserts and thickness of shutters shall be as specified. All members of the shutters shall be straight without any warp or bow and shall have smooth well planed face at right angles to each other. Any warp or bow shall not exceed 1.5 mm. The right angle for the shutter shall be checked by measuring the diagonals and the difference between the two diagonals should not be more than  $\pm 3$  mm.

### **Frame Work**

Timber for stiles and rails shall be of the same species and shall be sawn in the directions of grains. Sawing shall be truly straight and square. The timber shall be planed smooth and accurate to the required dimensions. The stiles and rails shall be joined to each other by plain or haunched mortise and tenon joints and the rails shall be inserted 25 mm short of the width of the stiles. The bottom rails shall have double tenon joints and for other rails single tenon joints shall be provided. The lock rails of door shutter shall have its centre line at a height of 800 mm from the bottom of the shutters unless otherwise specified. The thickness of each tenon shall be approximately one-third the finished thickness of the members and the width of each tenon shall not exceed three times its thickness.

**Gluing of Joints :** The contact surfaces of tenon and mortise shall be treated, before putting together, with bulk type synthetic resin adhesive conforming to IS 851 suitable for construction in wood or synthetic resin adhesive (Phenolic and amino plastic) conforming to IS 848 or polyvinyl acetate dispersion based adhesive conforming to IS 4835 and pinned with 10 mm dia hardwood dowels or bamboo pins or star shaped metal pins; after the frames are put together and pressed in position by means of press.

Stiles and bottom rail shall be made out of one piece of timber only. Intermediate rail exceeding 200 mm in width may be out of one or more pieces of timber. The width of each piece shall be not less than 75 mm. Where more than one piece of timber is used for rails, they shall be joined with a continuous tongued and grooved joint glued together and reinforced with metal dowels at regular intervals not exceeding 200 mm.

## **Rebating**

The shutters shall be single-leaf or double leaved as shown in the drawings or as directed by the Engineer-in-Charge. In case of double leaved shutters, the meeting of the stiles shall be rebated by one-third the thickness of the shutter.

## **Panelling**

The panel inserts shall be either framed into the grooves or housed in the rebate of stiles and rails. Timber, plywood, hard board and particle board panels shall be fixed only with grooves. The depth of the groove shall be 12 mm and its width shall accommodate the panel inserts such that the faces are closely fitted to the sides of the groove. Panel inserts shall be framed into the grooves of stiles and rails to the full depth of the groove leaving on space of 1.5 mm. Width and depth of the rebate shall be equal to half the thickness of stiles and rails. Glass panels, asbestos panels wire gauze panels and panel inserts of cupboard shutters shall be housed in the rebates of stiles and rails.

### **Stained glass panel :**

#### **STAINED GLASS**

Cobalt blue /Vaseline /fluorescent yellow/rubby gold/ cranberry glass/red glass/Egyptian blue /emerald green ,umber brown joinery with lead. Thickness not less than 6 mm .

Glass panelling (Glazing) shall be done with float sheet glass as per IS 14900. Glazing in the shutters of doors, windows and ventilators of bath, WC and Lavatories shall be provided with frosted glass the weight of which shall be not less than 10 kg/sqm. Frosted glass panes shall be fixed with frosted face on the inside. Glass panels shall be fixed by providing a thin layer of putty conforming to IS 419 applied between glass pane and all along the length of the rebate and also between glass panes and wooden beading.

### **Measurements:**

Framework and panelling shall be measured separately.

### **Frame Work of Shutters :**

The overall length and width of the framework of the shutters shall be measured nearest to a cm in fixed position (overlaps not to be measured in case of double leaved shutters) and the area calculated in square metres correct to two places of decimeter. No deduction shall be made to form panel openings or louvers. No extra payments shall be made for shape, joints and labour involved in all operations described above.

For panelling of each type or for glazed panel length and width of opening for panels inserts or glazed panels shall be measured correct to a cm before fixing the beading and the area shall be calculated to the nearest 0.01 sq.m. The portions of the panel inserts or glazed panel inside the grooves or rebates shall not be measured for payment.

## **Rate**

Rate includes the cost of materials and labour involved in all the operations described above. The frame work and panelling of each type or glazed panels shall be paid separately. The rate for frame work includes the cost of butt hinges and necessary screws, However, extra shall be paid for providing moulded beading where specified.

## **6) SPECIFICATION FOR WOOD**

### **TEAK WOOD FRAME**

Teak wood frame shall generally conform to standard laid in I.S. 1002 or the latest revision for requirements of materials, construction workmanship and shall be of specified thickness and of 1st class C.P. teak wood of approved design with stiles, top, bottom and lock rail generally as per drawing. Wherever shown, each panel shall be in a single width piece, but when two or more pieces have to be used and are permitted, all of them shall be of equal width and shall be jointed with a tongue and groove joint with chamfered edges glued together and reinforced with metal dowels. panel shall be in a single width piece, but when two or more pieces have to be used and are permitted, all of them shall be of equal width and shall be jointed with a tongue and groove joint with chamfered edges glued together and reinforced with metal dowel.

### **Hardware Fittings**

All hardware fittings for doors shall be either oxidized iron, brass, anodized aluminum as specified in the schedule of quantities. These hardware fittings shall be obtained from approved manufacturers and shall bear ISI mark wherever available. The samples for the fittings shall be submitted to the Owner/ Architects for their approval. Hardware fittings for door shutters shall be paid in door shutter item or separately as given in schedule of quantities. No separate payment shall be made for hardware fittings if not mentioned otherwise in the schedule of quantities. The rate for hardware fittings shall include for supplying, fitting and fixing the fittings with necessary cadmium plated screws, washer's bolts, nuts etc. as required. All locks shall be provided with keys in duplicate/triplicate and rate shall include for the same. Approved samples of hardware fittings shall be deposited with Owner/Architects for reference.

### **Workmanship**

- a) The workmanship shall be first class and to the approval of the Owner/ Architects. Scantlings and board shall be accurately sawn and shall be of required width and thickness. All carpenter's work shall be wrought except where otherwise described. The workmanship and joinery shall be accurately set out in strict conformity according to the drawings and shall be framed together and securely fixed in approved manner and with properly made joints. All work is to be properly tanned

shouldered, wedged, pinned, braced etc. and properly glued with approved quality glue to the satisfaction of the Owner/Architect.

b) Screws: Unless otherwise specified all screws to be used in woodwork and joinery shall be of cadmium plated and of approved quality. The size (diameter and length) should conform to those specified in hardware schedule.

c) Tolerance: 1.5 mm (1/16") will be allowed for each wrought face of sizes specified except where described as finished in which case they shall hold to the full dimensions.

d) Protection: All edges of timber frames etc. shall be protected from being damaged during construction by providing rough timber casing securely fixed and other adequate protective measures.

e) frames/shelf shall have cut rebate. Planted rebates shall not be permitted.

e) Where frames are fixed flush with plaster to wall, teak wood cover mould 40 x 12 mm as per drawings shall be provided all round and shall be painted or polish finished to match with finished shutters. This will be paid as a separate item as described in Schedule of Quantities.

### **Rates to Include**

Apart from other factors mentioned elsewhere in this contract the rate for item of wood work and joinery shall include for the following:-

A. Items of Scantling

B.

i) All labor, materials and equipment's for fixing frame work as per drawing including the cost of holdfasts, raw plugs, or other fasteners etc.

B. Items of display case

i) All labor, materials, hardware fittings and equipment's for carrying out the work as per drawing.

ii) Labor for fixing display case in position (including/excluding the cost of fittings as specified in the BOQ) as per drawing.

### **Mode of Measurement**

All measurements shall be as per relevant section of I.S. 1200 of latest edition.

i) Scantling shall be measured in cum. The sectional area shall be the area of the least square, or rectangles from which the scantling may be cut. The length shall be actual length of timber required for the purposes including the extra portion required for jointing.

- ii) Shutter shall be measured in square meter for closed door shutters area i.e. rebate to rebate without extra measurement for rebates and/or splayed meeting styles of door.
- iii) Partitions, encasing shall be measured in square meter of the finished work. For full height partition no payment shall be made for additional frame work extended up to ceiling for rigidity of the same.
- iv) Display cases /frames /display box shall be measure in one unit including the complete finishing and fixing of individual unit

**LIST OF MATERIALS OF APPROVED BRAND AND/OR MANUFACTURER FOR INTERIOR DECORATION**

<b>Description</b>	<b>Name of Manufacturer</b>
<b>Glazing :</b>	M/s. Saint Gobain M/s. Asai Glass M/s. Modi Guard M/s. Hindusthan Pilkington
<b>Castors :</b>	M/s. Efficient Gadgets, M/s. EPCO or equivalent
<b>Locks &amp; Fittings :</b>	M/s. Godrej M/s. EPCo M/s. Hafele M/s. Hettich M/s. B & R Brass Collection
<b>Aluminum Hardware</b>	M/s. Allen, M/s. Metaco, M/s. Crown or equivalent with ISI mark.
<b>Brass Hardware :</b>	M/s. Brass Arts (India) Pvt Ltd M/s. Vijay Industrial Eng Corp.
<b>Screws :</b>	M/s. Nettle Fold, M/s. GKW or equivalent approved quality.

1314) Note:

1. If the approved brands mentioned above are not available, equivalent make as may be approved by the Owner/Architects only to be used for the work.
2. The Architect/Owner shall have the final say about which material amongst the above mentioned shall be used in the project and the contractor shall have no claims on this account.

## **7) LIME SAND PLASTER (FOR UNDERCOATES AND EXCLUDING ITS USE ON FLOOR)**

### **SCOPE:**

The work covered by this specification shall be in furnishing and installation of lime plaster finish over walls, ceiling etc. For all plaster works, double scaffolding having two sets of vertical supports shall be provided, so that scaffolding is independent of walls. For ceiling scaffolding, in stages where required shall be done. Preferably, steel tubular scaffolding conforming to I.S. 2750 and carried out in accordance with I.S. 4014, shall be used.

### **SURFACE PREPARATION:**

Surfaces to be plastered shall be thoroughly cleaned of all dust, grease, oil and loose mortar. Efflorescence if any shall be removed by brushing and scraping and then applying few drops of hydrochloric acid added to water for 2 to 3 days. The entire surface shall then be thoroughly washed with brush and clean water.

Joints shall be raked out to depth of 20mm. minimum with a hook tool made for the purpose. Care should be taken not to damage masonry edges while raking. All surfaces of concrete, old plaster and stone shall be roughened sufficiently for bond. Soft or crumbling stonework and other surfaces shall be dismantled and remade if required. All surfaces to be plastered shall be thoroughly wetted for 24 hours before commencing plaster and shall be kept damp during the progress of work. At the same time the wall should not be too wet, as plaster is then likely to fall out and will not be satisfactory. It is essential to maintain uniform suction of water by receiving surfaces, which shall be ensured by damping evenly all dry patches before applying plaster. The Engineer will inspect all preparatory work and plastering shall not be commenced, until the Engineer approves all preparatory works.

### **MATERIALS:**

**Lime:** - Lime B class shall be used in the preparation of mortar and shall, conform to lime specification 3.3.

**Aggregates:** - Any of the following or their mixture in the given proportion shall be used.

**Sand:** - Sand should be angular to sub angular moderately sorted aggregate of nominal size of 150um to 1.18mm. River sand shall not be used.

**Gur/ Sugarcane molasses:** - 'Lapti' gur, without impurities, is to be added in the specified proportion.

**Gugal/Bel:** - 'Bhainsa' googal / Bel without impurities, is to be added in the specified proportion.

**Methi :-** Methi water to be prepared over a period of 3 days by keeping the methi soaked in water and hand-abraded on every day basis. The resultant liquid concoction should be filtered to make it ready for use.

**Water :** - For all mortars water used shall be free from mud, clay, acidic, basic or organic impurities and shall be drinkable.

### **APPLICATION & CURING:**

The first coat shall be done for saresi. Saresi is a lime plaster as specified in specification should be in ratio 1:1 (lime: Sand). The saresi shall be applied to the wall with trowel in thickness 5 to 8mm. The saresi surface shall be raked out, immediately after applying saresi when it is wet, by trowel at distances 30mm. to 45mm. in jig jag pattern. The saresi shall be done for complete area under execution and should be left for 2-3 days.

Now the surface shall be thoroughly wetted for 24 hours before applying Sand plaster. Ceiling plaster shall be completed before commencement of wall plaster. The Lime Sand plaster in ratio 1:1 (lime: sand) for wall shall be done from the top to bottom and if possible each wall should be done on the same day if to avoid defects or unevenness at the joints. To ensure even thickness and a true surface, about 150mm. x 150mm. of Lime Sand plaster shall first be applied horizontally and vertically at 2m. centres approximately, over the entire surfaces, to serve as gauges.

The lime sand mortar shall be filled between two gauges with a straight edge wooden piece (plainer or butkada). The plastered surface shall be firmly pressed to uniform plumb and plane. The surface shall be left for 24 hours. The surface shall develop cracks after 24 hours.

The surface shall be hammered at the cracks with the help of wet wooden sticks (jaal / bent wood) made for the purpose. The process should continue till the cracks are removed. The surface shall be left for 7 days and shall be cured.

All corners, angles, junctions, etc. shall be truly vertical, horizontal or carved as the case may be and shall be carefully finished. Rounding or chamfering of corners or junctions wherever required shall be done without any extra payment. No portion shall be left out initially to be patched up later on. Before applying Lime Sand, the entire surface of the Lime Sand plaster should be rechecked with a true straight edge (wooden or aluminium plainer 2.5m long), plumb, string, level, etc.

If any crack appears on surfaces or if any portion found soft or if sound defective due to less lime, improper curing or any other reason, the relevant portion shall be removed and redone as per the instruction of the Engineer.

The surface is thoroughly wetted before applying loi. Now the Lime Sand loi shall be applied in thickness 2mm. (ratio 1:2) is applied with the plainer. The surface shall be smoothed by rubbing and pressing.

The total thickness of the lime Lime Sand plaster, inclusive of all three coats could be from 15MM to 40 mm as required at site.

#### **MEASUREMENT & PAYMENT:**

The measurement shall be in Sq.M. as per drawings and BOQ. Opening shall be deducted in full and jambs or soffits shall be considered. The rate shall include jambs, curves at the junctions of walls, ceilings, arches etc. and at all corner. The above procedure shall apply to the both faces of the wall. No extra charge shall be paid for drip moulds, tapkas or grooves areas. If the average thickness of the plaster done by the Contractor is more than the specified one then no extra payment shall be made.

#### **8) LIME PLASTER (FINISHING COATES)**

##### **SCOPE:**

This specification covers lime-sand and lime surkhi plasters and lays down requirements for mortar for plaster and specified method of application of the different coats and mode of measurement & payment for lime plaster.

##### **MATERIALS:**

**Mortar For Plaster:** Unless otherwise specified in the Bill of Quantities, lime mortar mixes shall be as per specification and shall be prepared as per specification of lime mortar. The mortar, which has set or hardened before being used shall be rejected and immediately, removed from site.

##### **TWO/THREE COAT PLASTER:**

**Application of Rendering Coat:** In this case the rendering coat shall be a combination of the rendering floating coat of the "Three coat Plaster" and done under one continuous operation except that the scratching of the rendering coat as specified for three coat plaster work above shall not be done here and the total thickness shall be 12 mm.

##### **Application Of Floating Or Second Coat:**

The rendering coat shall be cleaned of all dirt, dust and other loose mortar droppings and lightly wetted. Patches 15 x 15 cm. or strips 10 cm. wide shall be applied at suitable spacing to act as gauges. Then the mortar shall be thrown with mason's trowel spread and rubbed to the required plain surface with wooden float. The surface obtained shall be dead true in all directions.

In case of lime and plasters the finishing coat shall generally be applied immediately as given below.

In case of lime-surkhi plasters the floating coat shall be allowed to slightly set and then lightly beaten crises cross with float's edge at close spacing for about 4 cm. This shall be



cured to set completely for a minimum period of 10 days and then allowed to dry out completely.

**Application of finishing coat with:** Immediately after the floating coat has been applied the finishing coat consisting of the cream of lime shall be applied with steel trowels rubbed and finished smooth. The rubbing should be continued till it is quite dry.

It shall be cured for at least 7 days, curing should be started only after 24 hours.

**Loi :** -The surface shall be cleaned of all dirt, dust and any mortar droppings etc. It shall be fully wetted and then the finishing coat shall be applied with suitable trowels rubbed hard and finished smooth.

### **Jhiki – Marble powder**

Water proofing Jhiki plaster 5-8 mm thick to be done instead of Loi on the two coats of lime surkhi plaster, Lime is slaked with curd and gur in proportion – (50 Kg Lime: 2 Kg Curd: ½ Kg Gur) for 15 days with changing of water everyday. After 15 days, one part of this lime putty is mixed with 2 parts of Jhiki and manually grounded on stone. The process is repeated two to three times with interval of one day between the process. The obtained mixture is now ready for use on the prepared surface. The surface is prepared by cleaning it removing all dust and then receives a coat of solution of sugar and water. The Jhiki plaster is normally done in three coats with interval of one day between coats. Before applying fresh coat the surface is given a rub using masons wooden hand held tool locally called 'batkara'.

No curing shall be done after the finishing coat has been applied.

### **MEASUREMENT & PAYMENT:**

The measurement shall be in Sq.M. as per Standard specifications.

## **9) RED OR WHITE FINE DRESSED SAND STONE FLOORING**

### **Stone Slabs**

The slabs shall be red or white as specified in the description of the item. The stone slabs shall be hard, sound, durable and tough, free from cracks, decay and weathering. In case of red sand stone, white patches or streaks shall not be allowed. However, scattered spots upto 10 mm diameter will be permitted. Before starting the work the contractor shall get samples of slabs approved by the Engineer-in-Charge.

The slabs shall be hand or machine cut to the requisite thickness along planes parallel to the natural bed of stone and should be of uniform size if required.

## **Dressing of Slabs**

Every slab shall be cut to the required size and shape and chisel dressed on all sides to a minimum depth of 20 mm. The top and the joints shall be fine tooled so that straight edge laid along the face is fully in contact with it. In case machine cut stones are used, chisel dressing and fine tooling of machine cut surface need not be done provided a straight edge laid anywhere along the machine cut surface is in contact with every point on it. The thickness of the slabs after dressing shall be 40 mm or as specified in the description of item with a permissible tolerance of  $\pm 2$  mm.

## **Laying**

Base concrete on which the slabs are to be laid shall be cleaned, wetted and mopped. The bedding for the slabs shall be with cement mortar 1:5 (1 cement : 5 coarse sand) or as given in the description of the item.

The average thickness of the bedding mortar under the slabs shall be 20 mm and the thickness at any place under the slabs shall not be less than 12 mm.

**The slab shall be laid in the following manner:** Mortar of specified mix shall be spreaded under each slab. The slab shall be washed clean before laying. It shall then be laid on top, pressed and lapped, so that all hollows underneath get filled and surplus mortar works up through the joints. The top shall be tapped with a wooden mallet and brought to level and close to the adjoining slabs, with thickness of joint not exceeding 5 mm. Subsequent slabs shall be laid in the same manner. After laying each slab surplus mortar on the surface of slabs shall be cleaned off and joints finished flush.

In case pointing with other mortar mix is specified, the joint shall be left raked out uniformly and to a depth of not less than 12 mm when the mortar is still green. The pointing shall be cured for a minimum period of 7 days. The surface of the flooring as laid shall be true to levels and slopes as instructed by the Engineer-in-Charge.

Slabs which are fixed in the floor adjoining the wall shall enter not less than 12 mm under the plaster, skirting or dado. The junction between wall plaster skirting and floor shall be finished neatly and without waviness.

The finished floor shall not sound hollow when tapped with wooden mallet.

## **Finishing**

In case of chisel dressed stone flooring slight unevenness, if any existing between the edges of slabs

at joints shall then be removed by chiselling in a slant.

## **Measurements**

These shall be as specified in para 11.19.5.

## **Rate**

The rate shall include the cost of all materials and labour involved in all the operations described above. Where pointing is to be done, this will be paid extra unless specifically included in the description of the item.

### **10) MARBLE FLOORING :-**

#### **3.0.GENERAL:**

Marble shall be hard, sound, dense and homogeneous in texture with crystalline texture as far as possible. It shall generally be uniform in color and free from stains, cracks, decay and weathering.

3.0.1 Marbles are metamorphic rocks capable of taking polish, formed from the re-crystallization of lime stones or dolomitic lime stones and are distinguished from lime stone by even visibly crystalline nature and nonflaggy stratification.

Note : Marble is a product of nature hence it is difficult to guarantee uniformity of colour, veining or other characteristics that may be represented in any sample submitted. A sample will indicate only an average of colour, veining and other general texture and specified finish.

#### **3.1 CLASSIFICATION:**

The marble blocks, slabs and tiles shall be classified broadly in the following two categories:

##### **3.1.1 White Marble Raj Nagar (plain white) Marble/ Makrana / Makrana Dhobi Doongri**

It shall be plain white marble with coarse grains predominantly showing mica particles giving reflection in light.

Makrana Dhobi Doongri Marble: Greyish marble with white flowery pattern available at Dhobi Doongri.

##### **3.1.2 Granite Stone**

It shall be of any colour and size as directed by Engineer-in-Charge. Granite shall be plain machine cut and mirror polished. The stone shall be smooth and of even surface without holes or pits.

#### **3.2 SIZES AND TOLERANCES**

The Thickness of marble is 18 mm and size, pattern of marble tiles as per design provided by architect.

### 3.3.1 Approval of Sample

Before starting the work, the contractor shall get samples of marble approved by the Engineer-in-Charge. Approved samples shall be kept in the custody of the Engineer-in-Charge and the marble supplied and used on the work shall conform to samples with regard to soundness, color, veining and general texture.

### 3.4 MARBLE WORK - TABLE RUBBED AND POLISHED (PLAIN WORK)

Marble work in steps, jambs, columns and other plain work shall be as specified below:

Joints in staircase treads, kitchen platforms shall be permitted only at curvature or when width/length is more than 0.6/2 mtrs. respectively. Number of joints in each direction shall not be more than one number for every 2 mtrs. length beyond the initial 2.00 m length. Additional joints due to curvature or for providing fixture shall be provide judiciously.

### 3.5.1 Dressing, Cutting and Rubbing

Every marble stone shall be gang saw/machine cut to the required size and shape, chisel dressed machine finished on all beds and joints, so as to be free from any waviness and to give truly vertical, horizontal, radial or circular joints as required. The exposed faces and sides of stones forming joints upto 6mm. from the face shall be fine tooled machine cut such that a straight edge laid along the face of the stone is in contact with every point on it. All window sills, tread of steps, counters vanities moulding edges etc. shall be machine cut & polished to give high gloss mirror finish as per direction of Engineer-in-Charge. These surfaces shall then be rubbed smooth.

### 3.5.2 Mortar

The mortar used for jointing shall be as specified.

### 3.5.3 Laying

All marble stones shall be wetted before placing in position. These shall then be floated on mortar and bedded properly in position with wooden mallets without the use of chips or under pinning of any sort.

The walls and pillars shall be carried up truly in plumb or battered as shown in the drawings. All courses shall be laid truly horizontal and all vertical joints shall be truly vertical.

In case of work without backing of brick work or coursed rubble masonry, face stone shall be laid in headers and stretchers alternatively unless otherwise directed. The headers shall be arranged to come as nearly as possible in the middle of stretchers above and below. Stone shall be laid in regular courses of not less than 15 cm in height and all courses shall be of the same height unless otherwise specified.

#### 3.5.4 Joints

The depth of joints 6 mm from the face shall be uniform and as fine as possible but shall be not more than 1.5 mm thick on the exposed face. Beyond the depth of 6 mm from face, the thickness of joints shall increase in an inverted V shape so as to give good mortar bond between two stones. The inverted portion of the joints shall be filled with bedding mortar and the face 6 mm portion with pointing mortar.

#### 3.5.6 Curing

The work shall be kept constantly moist on all faces for a period of atleast seven days.

#### 3.5.7 Finishing

After the marble work is cured, it shall be rubbed with carborandum stone of different grades no. 60, 120 and 320 in succession or with electrical rubbing machines rubbed with carborandum items 0 to 6 nos.in succession, so as to give a plane true and highly smooth surface. It shall then be cleaned with a solution of oxalic acid, washed and finished clean.

#### 3.5.8 Protection

Green work shall be protected from rain by suitable coverings. The work shall also be suitably protected from damage during construction.

#### 3.5.9 Measurements

For plain work: Measurements shall be taken correct to a cm in length and breadth and correct to 0.5 cm in thickness.

### **11) TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORK**

#### **NOTE:-**

Specifications/ standards applicable to this work shall be Indian Standard Specifications, Indian Electricity Act. National Electrical Code, Indian Electricity Rules and Punjab. PWD specifications, unless otherwise specified in the description of item, given in the schedule of quantities or in the special conditions and/or Technical Specifications, Requirements of these specifications shall be fulfilled by the contractor within the tendered rates. Item rates quoted shall be deemed to have taken these specifications, fire insurance regulations and SEB requirements into account. Sales tax, tax return over and any other tax levies by any authority and or any other statutory requirements.

**APPROVED MAKES FOR ELECTRICAL WORK AS APPROVED BY ENGINEER – IN – CHARGE / ELECTRICAL CONSULTANT.**

1.	CONDUITS	BEC, AKG, POLYPACK, PRECISION, MIHIR
2.	WIRES (FRLS)	HAVELLS, FINOLEX, POLYCAB,
3.	MCB	L&T(HAGER), MDS, ABB, SIEMENS, SCHNEIDER, LEGRAND
4.	SWITCHES	ANCHOR, HAVELS, L & T, HONEYWELL, LEGRAND
5.	TIMERS	L & T,C & G, SIEMENS
6.	MCCB/ACB	L & T, MDS, ABB,SIEMENS,SCHNEIDER, LEGRAND
7.	MCB/ELMCB/ELCB & DBS	MDS(LOADKONTAKT),SIEMENS, SIEMENS,ABB, SCHNEIDER, LEGRAND
8.	CHANGE OVER SWITCHES	C& S, HPL, SOCOMEC, L & T, MDS, ABB,SIEMENS,SCHNEIDER, LEGRAND
9.	CONTACTORS	L & T, ABB, SIMENS, SCHNEIDER
10.	EARTHING MATERIALS	G.I. ( B CLASS)
11.	BOLTS & NUTS/FIXTURE	HOT DIP GALVANIZED
12.	PCC/LTPANELS/BUSDUCT/ SYN.PANEL/ ENERGY METER PANEL	ISPL/TRICOLITE/UNITECH POWER SYSTEMS, L & T, ABB, SIMENS, SCHNEIDER
13.	INSULATORS	W.S., JAYSHREE AND APPROVED BY HSEB
14.	G.I. PIPES	J.S.T., TATA, JINDAL. OR ANY EQUIVALENT ISI BRAND APPROVED BY ARCHITECT.
15.	PVC CONDUIT PIPE	BEC, AKG, PRECISION
16.	STEEL CONDUIT	BEC, AKG
17.	FIRE EXTINGUISHERS	MINIMAX, FIREX, NITINE, ZENITH,
18.	FIRE ALARM SYSTEM	TYCO, HONEYWELL, GODREJ.

## **NOTES:**

1. Owner reserves the right to have any or all random samples of materials checked / tested by an approved test house. Contractor will bear all such test fees and other liaison works.
2. Wherever switchgears, DB etc., of specific ratings are not manufactured by the manufacturer next available higher size appropriately fused shall be used within the rated quoted.
3. Materials shall be brought to site in original packing. Manufacturing test certificates and or/ invoice for all materials shall be handed over to the site engineer on demand.
4. All materials specified in these specifications and conditions of contract must conform to the above brand name, and be of First quality, ISI marked wherever available and Department (Electricity), Punjab approved. Fabricated items shall be manufactured in accordance with the ISI specification and be first quality. Samples of all materials to be used must be submitted and got approved before procurement, and the owner / Architect reserves the right to select any of the Brand named specified herein for use.

## **12) TECHNICAL SPECIFICATIONS FOR PLUMBING WORK**

1. The Schedule of Quantities shall be read in conjunction with the Technical Specification and Drawings supplied by the Consultant. In case of any discrepancy between Schedule of Quantities, Technical Specification and Drawings, during execution period, the decision of the Employer / Project Manager will be final and the Contractor has to do the works as per the instruction of Project Manager without any extra cost.
2. The quantities given in the Schedule of Quantities are estimated and are given to provide a common basis for bidding. The quoted rates shall not vary if the actual quantities arrived as per working drawings differ from that of the tender quantities. The basis of payment will be the actual quantities of work carried out as per the final specifications and drawings issued for execution and as measured by the Contractor and Project Manager jointly. The method of measurement of completed work for payment shall, unless said otherwise, be in accordance with the joint measurement carried out by the Contractor and Project Manager and the decision of Project Manager will be final and the Contractor will be liable to accept the decision.
3. Unless otherwise mentioned, the Contractor shall consider all work items on supply, installation, balancing, testing and commissioning of equipment & accessories.
4. All civil works such as groove cutting in wall and floor and finishing of all grooves, making opening in wall /floor and making good etc. shall form part of item rates quoted

against each particular items in the Schedule of Quantities and shall not be measured separately. Only Sanitary & Plumbing works which have been specifically indicated in the Bill of Quantities shall be paid for at an agreed cost.

#### **LIST OF APPROVED MAKES FOR PLUMBING WORKS**

Under Ground u PVC pipe for Sewerage & Drainage	FOAMCORE / SUPREME Stiffness Value SN4N/sqmm.
Paint & Primer	Berger / ICI / J&N / Shalimar
M.S flat / Clamp (Hot dip galvanized)	AS APPROVED BY CLINT
Anchor Fastener	Hilti or equivalent
SWR Pipe	SUPREME / ASTRAL as per IS: 13592 (Type-B)
Sanitary ware	Hindware / Parryware / Eq.
C.P Fittings	JAQUAR / Equivalent
G.M Ball Valve	ITAP / KITZ
C.I Butterfly Valve, Pressure Reducing Valve	ITAP / KITZ Audco/Crawley / Ray Leader
CPVC Pipe and Fittings	ASTRAL / ASHIRBAD / AJAY
Galvanized Steel Pipe	Tata (medium class) as per IS: 1239
G.I Fittings	HB or Equivalent
Manhole cover and Grating	MUNICAST / NECO / EQ.
Submersible Pump	GRUNDFOS / WILO / EQ
Hydro-pneumatic Pump set	GRUNDFOS / WILO / EQ
uPVC SWR Pipe for Soil,Waste, Rain Water.	ASTRAL/ ASHIRBAD/SUPREME

#### **1. GENERAL REQUIREMENTS:**

The installation shall be carried out in conformity with the requirements of relevant bye-laws of Municipal and other Authorities in whose jurisdiction; the work is being carried out and also with specification laid down by Indian Standards in this codes and National Building Code of Practice - No. SP: 7 - 1983 (Part IX) plumbing services. & SP: – 35: 1987



- i) All water supply, drainage and sanitary work shall be executed by a Licensed Plumbing Contractor and shall be in accordance with the requirement of relevant bye-laws of Municipal or other Authorities in whose jurisdiction the work is being carried out.
- ii) The diameter of pipes and fittings wherever mentioned shall mean the internal diameter, unless otherwise specified.
- iii) The job shall include the cost of making necessary chases, holes etc. in walls, floors and in other places and also making good on completion of the work. The contractor shall make good, to the satisfaction of Project Manager/Employer in case of any damage caused to floors during sanitary and plumbing works.
- iv) Careful Handling, fitting and fixing the sanitary fixtures, as per drawings/specifications and instructions of authorities concerned and complete testing of necessary pipe connections, etc.
- v) Fitting and fixing including jointing of uPVC Soil, waste pipes and fittings to be completed. Prior to fixing, all pipes and fittings are to be properly checked. After fixing of pipelines, the same are to be tested by water test to ensure the system is leak proof.
- vi) Fitting & fixing of CPVC Pipe as per ASTM D 2846, SDR-11 for hot & cold water supply (concealed work) with various fittings such as tee, elbow, reducer, union, valves, cocks, float valve etc. with Solvent Cement Joint as per ASTM D-2564 for cold fusion. On TECHNICAL SPECIFICATIONS 4 UECPL completion the pipelines are to be tested by Hydraulic Pressure Testing Machine to ensure that the system is absolutely leak proof.
- vii) Fitting & fixing of PVC pipe (lead free) as per ASTM D-1785, schedule 40 for ring main, vertical distribution & fittings such as tee, elbow, reducer, union, coupling, male/female adapter, end cap, valves, cocks, float valve etc. with solvent cement solution as per ASTM D-2564. On completion the pipelines are to be tested by Hydraulic Pressure Testing Machine to ensure that the system is absolutely leak proof
- viii) Fitting, fixing & jointing of rain water pipe shall be laid over the M.S clamp (if required) with plastic clamps of suitable designs. Provision shall be made for movement in the suspended pipe caused due to thermal differences such that it does not grip or disturb the pipe at supports between the nut-bolts. The supports shall allow the repeated movements to take place without abrasion. Jointing of uPVC pipes shall be made by means of solvent cement for horizontal lines & "O" rubber ring for vertical line
- ix) Provide all tools and equipment's including testing machines required for testing and supporting & fixing devices so as to install the sanitary fittings, pipe lines etc. securely in position.

### **13) TECHNICAL SPECIFICATIONS FOR FIRE FIGHTING WORK**

#### General Requirements

2.1 All materials shall be of the best quality conforming to the specifications and subject To the approval of the employer.

2.2 Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in A neat workman like manner.

2.3 Pipes shall be fixed in a manner as to provide easy accessibility for repair and Maintenance and shall not cause obstruction in shafts, passages, etc .

2.4 Pipes shall be securely fixed to walls and ceilings by suitable clamps at intervals Specified. Only approved type of anchor fasteners shall be used for RCC ceilings and walls.

2.5 Valves and other appurtenances shall be so located that they are easily accessible for Operations, repairs and maintenance.

#### Pipes and fittings For Internal work:

a) All pipes within the building in exposed locations and shafts including connections Buried under floor shall be ERW mild steel tubes conforming to IS:1239 ( Heavy Class ) with screwed or welded joints as specified by the engineer in charge .

b) Fittings of 50 mm or below shall be forged steel with socket weld ends of approved Makes .For 65 mm and above shall be W.I./ M.S with butt weld ends .

4. Jointing ( See clause 12.0 of General Technical Specifications )

5. Excavation Excavations for pipe line shall be in open trenches to levels and grades shown on the Drawings or as required at site . Pipe lines shall be buried to a minimum depth of 1 to 1.5 meter or as shown on the drawings. Wherever required contractor shall support all trenches or adjoining structures with Adequate supports to prevent landslides. On completion of testing and painting, trenches shall be refilled with excavated earth in 15 Cm layers and compacted. Contractor shall dispose off all surplus earth within the SBCH site .

6. Anchor Blocks Contractor shall provide suitable cement concrete anchor blocks as may be necessary for Overcoming pressure trusts in underground / external pipes . Anchor blocks shall be of cement concrete 1:2:4 mix .

7. Valves Butterfly valves 65 mm dia and above shall be cast iron double flanged with lever type .Butterfly valves shall confirm to and marked IS : 13095-1991 780 Class PN-1.6 tested to 20 kg./sq.cm . Valves on MS pipe 50 mm and below shall be heavy pattern

gun –metal gate valves ( with Cast iron wheel )/ Ball Valve with lever type tested to 20 kg /sq .cm pressure . Valves shall conform to and marked IS:778. Check valves shall be cast iron double flanged conforming to IS 5312-1975 with cast iron Steel body and stainless steel internal trims . 8. Internal Hydrants

8.1 Contractor shall provide on each landing and other locations as shown on the drawings one Signal headed gunmetal landing valve with 63 mm dia outlets and 80 mm inlet ( I.S 5290-1969) with individual shut off valves and cast iron wheels . Landing valves shall have flanged inlet and instantaneous type outlet as shown on the drawings/BOQ .

8.2 Instantaneous outlets for fire hydrants shall be of standard pattern approved and suitable for Fire brigade hoses. Contractor shall provide for each internal fire hydrant station two numbers of 63 mm dia 15 meter long reinforced rubber lined hose pipes with gunmetal male and female instantaneous type coupling machine wound with G.I wire ( hose to IS 636 type A and couplings to I . S 903 with I.S certification), fire hose reel , gunmetal branch pipe with nozzle I.S 903 fireman’s axe as shown on the drawings/BOQ .

8.3 Each hose box shall be, after thorough cleaning of surface, painted as per section 28 of General Technical Specifications. The words Fire House to be painted on the inner face of the glass .

## 9. First Aid Hose Reels

Contractor shall provide standard fire hose reels with 20 mm dia high pressure rubber hose of 36 meters length with gunmetal nozzle with 6 mm bore , and control valve , shut of nozzle connected wall mounted on circular hose reel of heavy duty mild steel construction and cast iron brackets . Hose reel shall conform to I.S 884 – 1969 . The hose reel shall be connected directly to the MS pipe rise through an independent connection as shown on the drawings/BOQ .

10. Pressure Gauges a) All pressure gauges shall be of dial type with bourdon tube element of IS 316 . The gauge Shall be of reputed make . The dial size shall be 150 mm dia and scale division shall be in metric units marked clearly in black on a white dial . The range of pressure gauge shall be 0 to 10 kg / sq .cm .

b) All pressure gauges shall be complete with isolation cock , nipples , tail pipes etc .

## 11. Pressure switches

a) The pressure switch shall be industrial type single pole double throw electric pressure Switch designed for starting or stopping of equipment when the pressure in the system drops or exceeds the pre- set limits . It shall comprise of a single pole change – over switch , below element assembly and differential spindle

. b) All the pressure switches shall have 1/4" B.S P ( f ) inlet connection and screwed cable Entry for fixing cable gland .

## 12. Fire Brigade Connection

13.1 The contractor shall provide as shown on drawing gunmetal Fourr way collecting head with 63 mm dia instantaneous type inlets with built in check valve of 100/150 mm dia. outlet connection to the fire main grid and for tank filling, collecting head shall conform to IS 904-1965.

## 13. Air Valves

13.1 The contractor shall provide 25 mm dia screwed inlet case iron single acting air valve on all high Points in the system or as shown on drawings.

## 14 rain valve

14.1 The contractor shall provide 25 mm dia M.S pipe to IS : 1239 ( heavy class ) with brass gate Valve for draining any water in the system in low pockets as shown in drawings or as directed by the owner .

## 15 Valve chambers

15.1 Contractor shall provide suitable brick masonry chambers in cement mortar 1:5 ( 1 cement : 5 coarse sand ) on cement concrete foundations 150 mm thick 1: 5 : 10 mix ( 1 cement : 5 fine sand 10 graded stone aggregate 40 mm nominal size ) 15 mm thick cement plaster inside and outside finished with a floating coat of neat cement inside with cast iron surface box approved by fire brigade including excavation , back filling , complete . 15.2 Valve chamber shall be of the following size : For depths 100 cm and beyond 120 x 120 cms 16 Jointing of pipes Pipes and fittings shall be joined with electrical resistance welding in approved manner.

## 16. Painting

16.1.1 All above grounded pipes , pipe fittings , hose cabinets structural steel work pipe supports etc . Shall be painted as per specifications given below .

16.2 Painting shall be done only after completion of fabrication work and testing .

16.3 The instructions of paint manufacture shall be followed as far as possible otherwise the work is to be done as directed by the Owner .

16.4 All cleaning materials , brushes , tools and tackles , painting , material etc . shall be arranged By the contractor at site in sufficient quantity .

16.5 All rust , dust shall scales , welding slag or any other foreign materials shall be removed fully So that a clean and dry surface is obtained prior to painting . Any other oily containment shall be removed by use of a solvent prior to surface cleaning .

16.6 First coat of primer paint must be applied by brush on dry clean surface immediately or in any Case within 3 hours of such cleaning .

16.7 Primer paint – one coat ( minimum thickness 100 microns ) self – priming epoxy mastic.

16.8.8 Finishing coats :

a) For production areas – 2 coats (thickness minimum 50 microns each) of epoxy paint, fire Red shade as per IS code.

b) For other than production areas – 2 coats of synthetic enamel paint , fire red shade as per IS:5.

17. Coating wrapping for underground pipes

17.1 All underground piping shall be protected by coating and wrapping as per the following Procedure. 17.2 The materials and workmanship shall in general confirm to IS:10221 or as directed by the Owner .Pipe Protection ( See clause 28.0 & 29.0 on ‘ Painting’ and ‘ Coating / Wrapping ’ under General Technical Specifications )

18. Pipe Supports

18.1 All Pipes shall be adequately supported from ceiling or walls by means of anchor fasteners by drilling holes with electrical drill in an approved manner as recommended by manufacturer of the fasteners.

18.2 All supports / clamps fabricated from MS Structural e.g . Roads, channels, angles and flats shall be painted as described in specifications for “painting” under General Technical Specifications.

18.3 Where inserts are not provided the contractor shall provide anchor fasteners. Anchor Fasteners shall be fixed to walls and ceilings by drilling holes with electrical drill in an approved manner as recommended by the manufacturer of the fasteners.

19 .Testing

19.1 All piping in the system shall be tested to a hydrostatic pressure of 11.0 kg / sq .m without Drop in pressure for at least 2 hours. 18.2 Rectify all leakages, make adjustments and reset as required and directed.

## LIST OF APPROVED MAKES OF MATERIALS FOR FIRE PROTECTION WORKS

Note: The tenderer shall quote his rates on the basis of price of brand/ make stipulated in the item of works as described in BOQ specification and furnished in technical data. The tenderer shall consider the first make of material from the list of Approved make while quoting tender. The owner reserves the right to select any of the brand indicated in the “List of approved makes/ Agencies”.

S.No.	Material	Brand Name
1.	Black steel (M.S) pipes/ G.I pipes	Jindal/ Hissar / Jindal/ Tata
2.	G.I. fittings (Malleable C.I)	Zoloto/ Unik/ R
3.	Gate Valves/Globe valves/Ball Valves	CIM/ Zoloto /Leader
4.	CI butterfly valves, Check valves, Y strainer	SKS/ CIM/Audco/ Simmens
5.	Alarm Valve	HD/ Gem / Reliable
6.	Sprinkler Head	Spraysafe /ASCOA / Safex
7.	Fire Hydrants Fire Hose reel	Superex /Minimax / Newage
8.	Collecting Head Fire hose couplings Branch pipe	Superex/ Minimax/Newage
9.	Nozzles	Superex /Minimax/ Newage
10.	Canvas Hose (RRL)	Jayashree/ Indian Rayon
11.	Smoke detector	ceasefire/bosh/ Superex/Godrej,
12.	Rubber hose pipe	Dunlop or eq.appd. Make
13.	Pumps	Kirloskar, KSB, Mather &Platt
14.	Motors	Kirloskar,Crompton greeves, Siemens

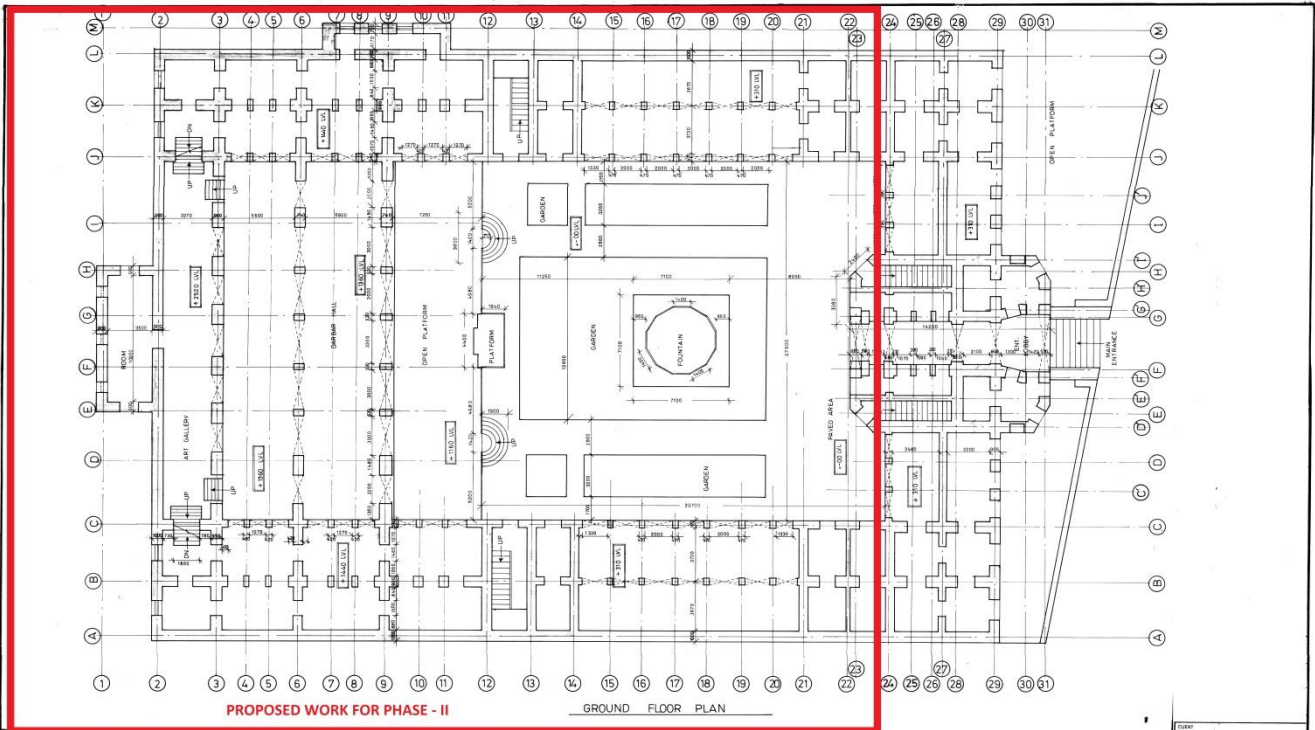
## **Measurement**

Mild steel pipes shall be measured per linear meter of the finished length along the centre line and shall include all fittings (including flanges), welding, jointing, clamps for fixing to walls or hangers, anchor fastener and testing. Butterfly valves, check valves and full way valves shall be measured by number and shall include all items necessary and required for fixing and as given in the specifications / schedule of quantities . Landing valves, hose cabinets , reinforced rubber lined fire hose pipes , first aid fire hose reels (with gunmetal full way valves ) and gunmetal branch pipes shall be measured by numbers and shall include all items necessary and required for fixing as given in the specifications / schedule of quantities . Suction and delivery headers shall be measured per linear meter or finished length and shall include all items as given in the schedule of quantities. Painting / wrapping / coating of headers, pipes shall be included in the rate for pipes and no Separate payment shall be made. Brick masonry chambers shall be measured by number and shall include all items as given in the schedule of quantities specifications. No additional payment shall be admissible for cutting holes or chases in walls or floors, making connections to Pipe, inlet, equipment and appliances.

**SECTION-8**  
**DRAWINGS**



# GROUND FLOOR PLAN



PROPOSED WORK FOR PHASE - II

GROUND FLOOR PLAN

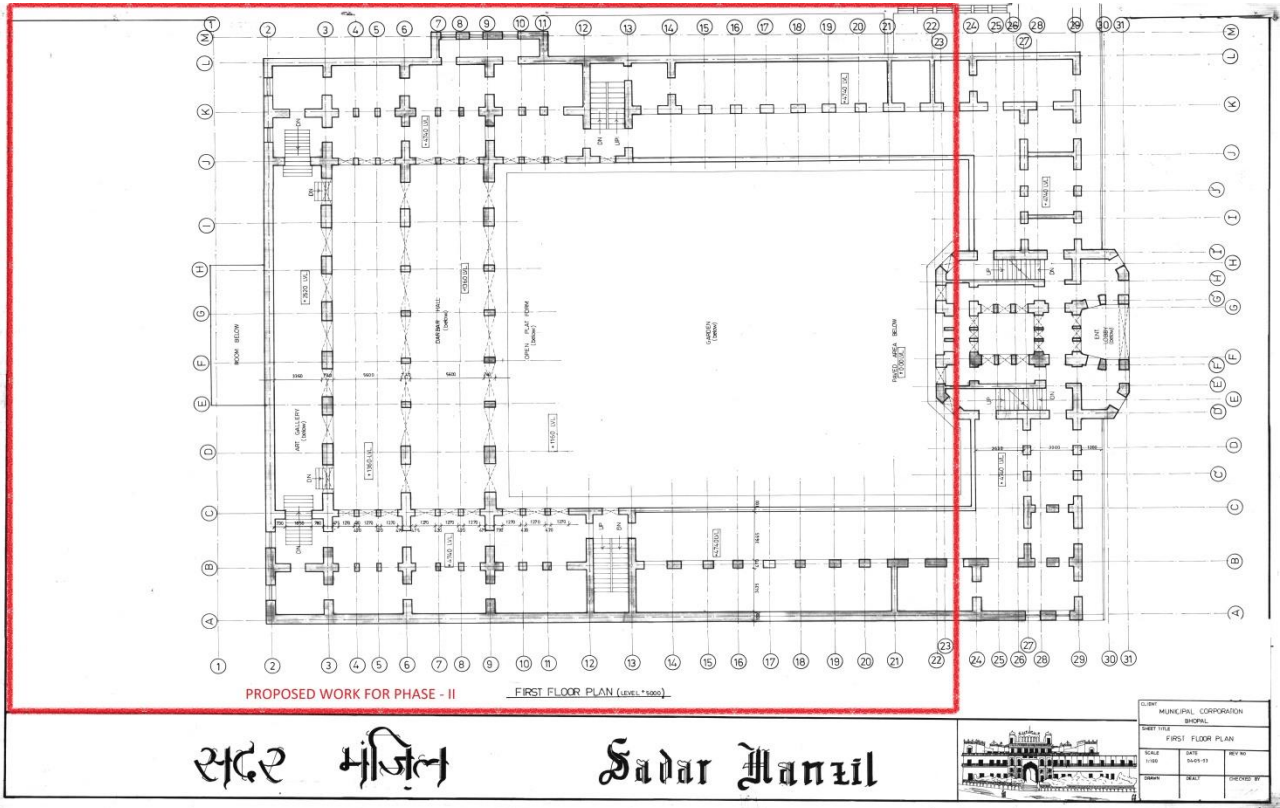
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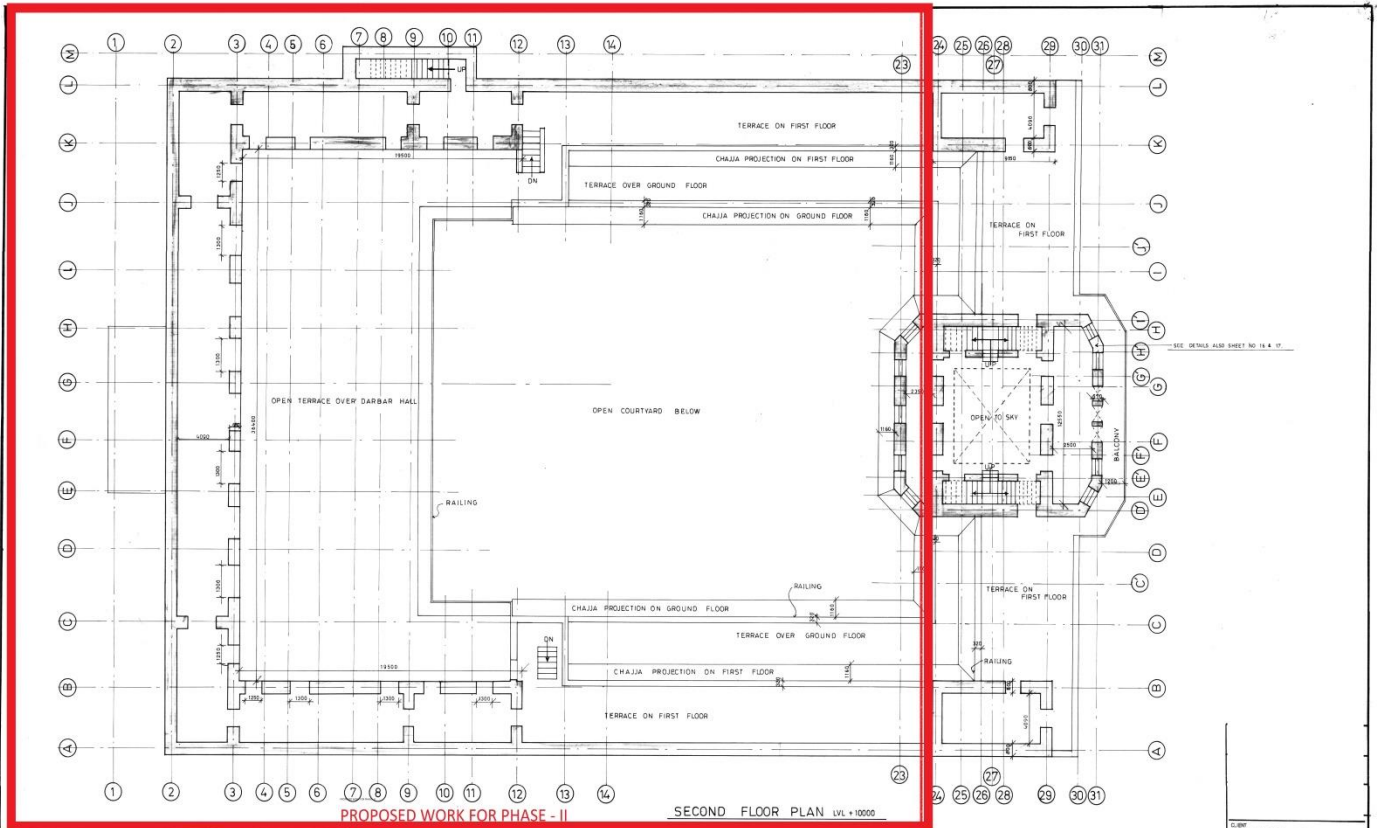


PROJECT MUNICIPAL CORPORATION BROHAR		
SHEET TITLE GROUND FLOOR PLAN		
SCALE 1:100	DATE 20/03/20	REV NO
DESIGN	DRAWN BY	CHECKED BY

# FIRST FLOOR PLAN



# SECOND FLOOR PLAN



PROPOSED WORK FOR PHASE - II

SECOND FLOOR PLAN LEVEL +10000

सदर मंजिल

Sadar Manzil



CLIENT		
MUNICIPAL CORPORATION		
BHOJAL		
SHEET TITLE		
SECOND FLOOR PLAN		
SCALE	DATE	REV. NO.
1:100	05-01-18	
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**SECTION-9**

**BILL OF QUANTITY**

CIVIL\_PLUMBING\_FIRE\_PWD\_SOR

Sr No	Description	Quantity	Unit	Rate	Amount
1	Dismantling steel work in built up sections of railings /steps/grills/sheds/poles etc in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 100metres lead.at all heights inclusive of all leads/ lifts and support structure required to undertake the work without damaging the historic fabric of the building .	1,000	KG	2.15	2,150.00
2	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 100 m initial lead, for all leads including all lifts involved.	3000	CUM	123.70	371,100.00
3	Careful dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 100 meters lead of :G.S. Sheet .item inclusive of all leads and lift for all height and distances .	1450	SQM	62.80	91,060.00
4	Careful dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 100 meters lead of :Asbestos sheet. .item inclusive of all leads and lift for all height and distances .	450	SQM	29.50	13,275.00
5	Dismantling steel work in built up sections in angles,pipes, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 100 metres lead.	32	KG	2.15	68.80
6	Dismantling wood work in frames, trusses, purlins and rafters up to 10 meters span and 5 metres height including stacking the material within 100 metres lead :Of sectional area 40 square centimetres and above	0.162	CUM	1718.80	278.45
7	Dismantling steel work in built up sections of roof l beams including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 100metres lead.	7500	KG	2.15	16,125.00

8	Relaying /replacement of stone tiles/brocken stone slab from the roof .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building applicable to complete the work.	200	SQM	527.95	105,590.00
9	providing and laying APP modified pree fabricated 5 layers 3 mm thick water proffing membrane ,black finished reinforced with non woven polyster matt consisting of a coat of bitumin primer for botumen membrane @.4 ltr /sq mtr by the same membrane manufacture of density at 25 degree centigrade ,0.87-0.89 kg/lt and viscosity of 70-160 cps .the laying of membrane shall be got done through authorised applicator of the manufacturer of membrane including laying of geo textile cloth of 70 mils thickness over the APP layer all inclusive and complete.	2625	SQM	425.35	1,116,543.75
10	Providing gola 75mm x 75mm in lime concrete 1:2:4 (1 lime: 2 coarse sand: 4 graded stone ballast 10mm nominal size) including finishing with lime mortar 1:2 ( 1lime: 2 fine sand), as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	1250	MTR	143.10	178,875.00
11	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	5	CUM	6570.00	32,850.00
12	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Cold twisted bars.	550	KG	68.10	37,455.00
13	Centering and shuttering including strutting, propping etc. and removal of form for :Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc..	100	SQM	360.80	36,080.00
	<b>PLUMBING</b>				

14	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & CP flush bend with fittings & CI brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever.W.C. pan with ISI marked white solid plastic seat and lid.	14	Each	4784.60	66,984.40
15	Providing and fixing C.P. brass short body bib cock with flange of approved quality confirming to IS: 8931.15mm nominal bore	14	Each	459.50	6,433.00
16	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	18	Each	2331.15	41,960.70
17	Providing and fixing PTMT Bottle Trap for Wash basin and sink.Bottle trap 38 mm single piece moulded with height of 270mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms	18	EAC H	518.15	9,326.70
18	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass union and G.I clamps complete, including painting and brackets, cutting and making good the walls and floor wherever required One urinal basin with 5 litre white PVC automatic flushing cistern	12	EAC H	3326.1	39,913.20
19	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make confirming to IS : 8931.15mm nominal bore	12	EAC H	619.75	7,437.00

20	Providing & fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape and brackets of the same materials with snap fittings of approved quality and colour weighing not less than 105 gms.	16	Each	228.85	3,661.60
21	Providing & fixing 600x450mm beveled edge mirror of superior glass ( of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washer complete.	4	Each	793.95	3,175.80
22	Providing and fixing toilet paper holder C.P. brass	14	EAC H	415.9	5,822.60
23	Providing and fixing soil, waste and vent pipes :100 mm dia Centrifugally cast (spun) iron socketed pipe as per IS 3989.	400	Metr e	917.75	367,100.00
24	75 mm Centrifugally cast (spun) iron socketed pipe as per IS 3989	100	Metr e	709.10	70,910.00
25	Providing and fixing M.S holder-bat clamps of approved design to sand cast iron/sand cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10cm of 1:2:4 mix ( 1cement:2coarse sand: 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.				
	For 100 mm dia pipe	50	Each	152.90	7,645.00
	For 75 mm dia pipe	50	Each	150.60	7,530.00
26	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. 100 mm, Centrifugally Cast (Spun) Iron S & S pipe as per IS : 3989	40	Each	385.7	15,428.00
27	Providing and fixing plain bend of required degree 100 mm Centrifugally Cast (Spun) Iron S & S pipe as per IS : 3989	40	Each	335.75	13,430.00
28	Providing and fixing plain bend of required degree 75 mm Centrifugally Cast (Spun) Iron S & S pipe as per IS : 3989 75 mm	30	EAC H	248.8	7,464.00
29	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. 100x100x100 mm	60	Each	632.80	37,968.00



	Sand cast iron S & S as per IS 3989				
30	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete 75x75x75 mm Sand cast iron S & S as per IS 3989	20	Each	472.95	9,459.00
31	Providing and fixing single unequal plain junction of required degree. 100x100x75 mm Sand cast iron S & S as per IS 3989	30	Each	690.00	20,700.00
32	Providing and fixing double equal plain inverted branch of required degree 100x100x100x100 mm Sand cast iron S & S as per IS 3989	20	Each	643.00	12,860.00
33	Providing and fixing collar ,100 mm Sand cast iron S & S as per IS 3989	20	Each	318.35	6,367.00
34	Providing and fixing collar ,100 mm Sand cast iron S & S as per IS 3989	20	Each	219.75	4,395.00
35	Providing and fixing M.S stays and clamps for sand cast iron / Centrifugally Cast (Spun) Iron Pipes iron pipes of diameter.				
	100 mm	30	Each	68.60	2,058.00
	75 mm	15	Each	57.15	857.25
36	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 M spacing. This include jointing of pipes & fitting with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge.				
	<b>Internal Work - Exposed on wall</b>				
	15 mm nominal outer dia Pipes	90	Metre	163.50	14,715.00
	20 mm nominal outer dia Pipes	90	Metre	190.55	17,149.50
	25 mm nominal outer dia Pipes	100	Metre	231.30	23,130.00
	32 mm nominal outer dia Pipes	100	Metre	296.70	29,670.00

	40 mm nominal outer dia Pipes	50	Metre	407.90	20,395.00
	50 mm nominal outer dia Pipes	50	Metre	581.55	29,077.50
<b>37</b>	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 M spacing. This include jointing of pipes & fitting with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge.				
<b>38</b>	<b>Concealed work including cutting chases and making good the walls etc.</b>				
	15 mm nominal outer dia Pipes	80	Metre	270.00	21,600.00
	20 mm nominal outer dia Pipes	80	Metre	296.40	23,712.00
	25 mm nominal outer dia Pipes	120	Metre	351.20	42,144.00
	32 mm nominal outer dia Pipes	120	Metre	422.80	50,736.00
<b>39</b>	Providing & fixing ball valve (brass) of approved quality, High or low pressure with plastic floats complete				
	15 mm nominal bore	20	Each	288.50	5,770.00
	20 mm nominal bore	20	Each	409.90	8,198.00
	25 mm nominal bore	16	Each	449.95	7,199.20
<b>40</b>	Providing & fixing gun metal gate valve with C.I wheel of approved quality, (Screw end)				
	32 mm nominal bore	20	Each	501.50	10,030.00
	40 mm nominal bore	20	Each	585.50	11,710.00
	50 mm nominal bore	20	Each	750.75	15,015.00
	65 mm nominal bore	20	Each	1287.75	25,755.00

41	Constructing masonry chamber 30x30x50 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 fine sand) for gate valve with C. I. surface box 100x100x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1 : 3 ( 1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design with F. P. S. bricks	10	Each	1157.75	11,577.50
SEWERAGE & DRAINAGE SYSTEM					
42	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of Cement Mortar in proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. Complete.				
	100 mm diameter	30	Metre	206.55	6,196.50
	150 mm diameter	200	Metre	314.35	62,870.00
43	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all round stoneware / RCC pipes including in bed concrete as per standard design				
	100 mm diameter S.W. pipe	30	Metre	592.00	17,760.00
	150 mm diameter	200	Metre	724.00	144,800.00
44	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :				
	100 mm diameter S.W. pipe	30	Metre	281.60	8,448.00
	150 mm diameter	200	Metre	456.45	91,290.00

45	Providing and laying non pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete :				
	150 mm dia RCC pipe	50	Metre	348.30	17,415.00
	250 mm dia R.C.C. pipe	200	metre	468.60	93,720.00
46	Providing and fixing square mouth S.W. gully trap grade 'A' complete with CI Grating brick masonry chamber with bricks of class designation 75 and water tight C. I. cover with frame of 300X300 mm size(inside) the weight of cover to be not less than 180x150 mm size P type 4.50 kg and frame to be not less than 2.70 kg as per standard design With FPS bricks class designation 75	5	Each	1678.85	8,394.25
47	Providing orange colour safety foot rest of minimum 6mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring protections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specification & having manufacture's permanent identification mark to be visible even after fixing, including fixing in manhole with 30x20x15 cm cement concrete block 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	10	Each	311.6	3,116.00
48	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a				

	floating coat of neat cement and making necessary channels for the drain etc. complete: distribution branch with G. I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				
	For pipes 100 to 250 mm diameter	3	each	364.60	1,093.80
	For pipes 250 to 300 mm diameter	3	each	436.20	1,308.60
49	Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast RCC horizontal grating complete as per standard design. With F.P.S bricks	4	Each	3957.5	15,830.00
50	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast RCC horizontal grating complete as per standard design. With F.P.S bricks	3	Each	4408.95	13,226.85
	<b>FIRE FIGHTING SYSTEM</b>				
51	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :				
52	With F.P.S. bricks	5	Each	11672.35	58,361.75

CIVIL\_PLUMBING\_FIRE\_UADD\_SOR

Sr No	Description	Quantity	Unit	Rate	Amount
1	Clearing grass including uprooting of rank vegetation, grass, bush wood, trees and saplings of girth upto 30cm measured at a height of 1m above ground level and removal of rubbish upto a lead of 100 mts.	950	SQM	3.41	3,239.50
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil.	360	CUM	127.00	45,720.00
3	Careful demolishing cement concrete( below any finishing layer ceramic /vinayal flooring) ,steps,blockage manually/ by mechanical means including disposal of material within 100 metres lead as per direction of Engineer - in charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)at all heights inclusive of all leads/ lifts and support structure required to undertake the work without damaging the historic fabric of the building .	335	CUM	475.00	159,125.00
4	Careful demolishing traditional/lakhori/moduler brick work manually/ by mechanical means in lime /cement mortar including stacking of serviceable material and disposal of unserviceable material within 100 metres lead as per direction of Engineer-in-charge at all heights inclusive of all leads/ lifts and support structure required to undertake the work without damaging the historic fabric of the building .	415	CUM	401.00	166,415.00
5	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 100 metres lead :				
	Of area 3 sq. metres and below	62	EACH	27.00	1,674.00

	Of area beyond 3 sq. metres	90	EACH	36.00	3,240.00
6	Carefully Removal of ceramic tiles from floor and wall surfaces including old cement/lime plaster from heritage structure without damaging the brickwork including raking out of joints and cleaning the surface thoroughly. Item includes disposal of rubbish to the dumping ground/ workyard within the site by manual means at all heights inclusive of all leads/ lifts and support structure required to undertake the work without damaging the historic fabric of the building .	800	SQM	21.00	16,800.00
7	Carefully Removal of kota stone slab/floor /pavement /plinth protection by manual means including stacking of the serviceable material and disposal of unserviceable material up to a lead of 100 mtr , as per direction of Architect/ Engineer-in-charge.	605	SQM	52.00	31,460.00
8	Careful removal of stone tiles from roof of the building and stacking of serviceable material at workyard (without damaging the stone tiles /truss/historic fabric of building) and disposal of unserviceable material within 100 metres lead as per direction of Engineer-in-charge .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	200	SQM	52.00	10,400.00
9	Careful demolishing lime concrete manually/ by mechanical means and disposal of material within 100 metres lead as per direction of Engineer in-charge /Architect.Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	230	CUM	166.00	38,180.00

10	Careful demolishing R.C.C. work in chajja /beam/slab using cutters including stacking of steel bars and disposal of unserviceable material within 100 metres lead as per direction of Engineer - in-charge.(Hammering not to be done .).Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	75	CUM	694.00	52,050.00
11	Extra for cutting reinforcement bars by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer -in -charge.	555	SQM	222.50	123,487.50
12	Careful demolishing brick tile covering /brick on edge( vaulted roof ) /clay tile in terracing including stacking of serviceable material and disposal of unserviceable material within 100 metres lead.Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	2200	SQM	20.00	44,000.00
13	Demolishing mud phaska in terracing and disposal of material within 100 metres lead.Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	440	CUM	178.00	78,320.00
14	Careful removal of woodwork in frames, trusses, purlins (Karis) and rafters upto 10m span including stacking the material, all heights and section sizes, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	90	CUM	841.00	75,690.00



CIVIL\_PLUMBING\_FIRE\_NON\_SOR

Sr No	Description	Quantity	Unit
1	De vegetation from the monuments by chemical injection of Round Up (arsenic base) compound and subsequently uprooting by physical means without damaging the historic fabric and structure of the building under strict supervision of conservation architect/site inchrge.	180	SQM
2	Carefully scrapping and removing of multiple layers of white wash enamel paint , distemper, oil paint, algae, etc. from plain plaster and surfaces gently with care to keep old designs intact .as per prescribed process and specification . Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers required to complete the work.(Overall length and width will be measured for the purpose of payment)	1050	SQM
3	Carefully removal of multiple layers of white wash enamel paint from stone decorative columns/vertical surfaces gently with care to keep old designs intact as per prescribed process and specification . Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers required to complete the work.(Overall length and width will be measured for the purpose of payment)	765	SQM
4	Careful dismantling of old lime plaster/cement plaster from walls of the heritage structure without damaging the stone work/brick work /historic fabric of the building including raking out of joints and cleaning the surface thoroughly. Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers required to complete the work and disposal of rubbish to the dumping ground/ work yard within the site by manual means including all leads, lifts and carriage as per direction of architect/engineer inchrge.	5750	SQM
5	Careful dismantling of old lime plaster/cement plaster from ceilings of the heritage structure without damaging the stone work/brick work /historic fabric of the building including raking out of joints and cleaning the surface thoroughly. Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building applicable to complete the work and disposal of rubbish to the dumping ground/ work yard within the site by manual means including all leads, lifts and carriage as per direction of architect/engineer incharge.	190	SQM

<b>6</b>	Carefully Removal of Jaali/grill /mosquito jaali with frame from window of external façade /blockages made on existing windows and doors with woolden block boards/plywood and partion wall free standing and support with wall etc without damaging the historic fabric of the building . Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building applicable to complete the work .Item include all leads /lift and cariage etc,from work area to site yard including proper stacking of the re usable materials.	850	SQM
<b>7</b>	Carefully Removal of wooden boardings in lining of walls and partitions partition/ jali /wall pannels with frame including removal of blockedge from window /doors made on existing windows and doors with woolden block boards/plywood etc without damaging the historic fabric of the building . Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building applicable to complete the work .Item include all leads /lift and cariage etc,from work area to site yard including proper stacking of the re usable materials.	470	SQM
<b>8</b>	carefully removal of marble flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 100 metres lead.	460.00	SQM
<b>9</b>	Removal of all old plumbing (internal & external) including wc, washbasin, taps ,G.I. pipes,shafts,chimney etc. from the site and stacking serviceable materials, as directed by Engineer inchrge/ Architect, and including all leads, lifts and carriage. All complete.	1	JOB
<b>10</b>	Removal of electrical wires and works and wooden conduits both in external and internal elevations (includes tube lights, switches, PVC conduits,lines ,bulbs etc.), as directed by Engineer inchrge/ Architect, and including all leads, lifts and carriage. All complete.	1	JOB
<b>11</b>	Carefully removal of old sand stone/marble jaali of parapet level and plateform of the open court yard as including stacking of serviceable material and disposal of unserviceable material within 100 metres lead as per direction of Engineer-in-charge at all heights inclusive of all leads/ lifts and support structure required to undertake the work without damaging the historic fabric of the building .	10	SQM
<b>12</b>	Careful demolishing/removing wooden posts of porch area and projections above the first and second floor and carefull stacking the same within 100 metres lead.item inclusive of all leads and lift for all height and distances .	24	NO.S

13	Careful removal of damaged old ceiling gypboard /ms sheet false ceiling /cornices in internal area , as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	890	SQM
14	Careful removal of old tin molded ceiling in internal area and stacking of ceiling on a suitable place from work yard and covered with trepline sheet , as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	400	SQM
15	Traditional brick masonry with special brick size in lime mortar in propotion similar to the existing traditional lime mortar (lime putty -surkhi 1:2) after removing the damaged and out of plumb masonry from the historic structure, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.		
	for superstructure for all heights	225	CUM
	add extra for brickwork in ornamental pillars	20	CUM
	Brick masonry for arches with special size traditional bricks	15	CUM
16	Ornamental traditional brick masonry in mouldings and cornices (not more than 23 cm in projection and 23 cm in depth as per traditional practice) in lime mortar similar to the existing traditional lime mortar (lime putty- surkhi 1:2) after removing the damaged and out of plumb masonry from the vertical surfaces , as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	600	RMT
17	Underpinning brickwork in matching / best lime mortar with the brick courses of the historic structure in traditional brick masonry with special brick for superstructures by joining old brickwork with new brickwork. Grooves shall be cut 5cm deep in alternate course of old brickwork, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	40	CUM
18	Stitching the cracks in brick masonry using brick and lime mortar matching the traditional lime mortar and bricks as existing in the historic structure after raking, cleaning and washing the cracks, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	20	CUM
19	Stitching of Modular brickwork by inserting red sand stone of size 600 X 300 X 100 MM at identified locations by engineer in charge / architect and grouting the area with rich lime mortar 1:1 (1 lime: 1 Surkhi) including preparing like cutting out brickwork, teething, cleaning, grouting etc.For all heights and stacking of malba within 100 mtr lead.	200	NO.S

<b>20</b>	Structural steel (I Sections) work in single section fixed with or without connecting plate including cutting hoisting, fixing in position and applying a priming coat of approved steel primer, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	12100	KG
<b>21</b>	Providing, hoisting and laying of stone base plate of size (450X 600X 150 MM ) under I sections beams on the end wall for placing the structural steel beam, as per the specification .	105	NO.S
<b>22</b>	Providing and fixing well seasoned and chemically treated Teak wood work in beams ,ties,karis (purlins)columns , section of various sizes including carving and moulding as per existing in original /as per drawing / length as per design and traditional wooden joinry of members, and fixed in position in traditional detail/manner as directed by Engineer incharge/ Architect, All member to be finished from all sides with redoxide paint of appropriate shade as approved by the Engineer In-charge / Architect. Item also include all leads, lifts and carriage upto all heights including necessary framework/scaffolding etc required to complete the task. Contractor to ensure that moisture content of wood is well within IS codes and Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc..Item also includes Anti termite treatment of wood before fixing the frame at site.	130	CUM
<b>23</b>	Providing and laying of plank of Deodar wood ( 40 mm thick, )above wooden beam/purlin , 150 to 200 mm wide and atleast 2 M long over the wooden purlins, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. Fixing of planks includes, planning, taking out tounge & grooved joints, fixing by nails with purlins/beam, All timber to be free of knots, cracks etc. Item also includes Anti termite treatment of wood before fixing the frame at site.	1620	SQM
<b>24</b>	Construction of brick vaulted roof as per old design of thickness upto 230 (or as per design ) mm in lime surkhi mortar 1: 2 (1 lime : 2 surkhi ) including scaffolding/ shuttering /centering and form work for temporary support structure required for the construction as directed by conservation architect /site incharge.at all heights & including of all leads and lifts.( Plan area of internal walls of constructed vault to be measured for the purpose of payment)	185	CUM
<b>25</b>	Providing and laying twin layer traditional brick tiles over wooden planks, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	1620	SQM

<b>26</b>	Providing and laying of 150 to 200 mm thick lime dhar on roofing as per traditional practice in 1:2:2:2 (1 lime: 2 sand: 2 old lime powder: 2 brick aggregate 12mm to 200mm nominal size) using methi, gur, hemp, belgiri etc. including beating and temping as per specification. Ramming for minimum 10 days and curing for min 30 days, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	2860	SQM
<b>27</b>	100 mm thick (Average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25mm thick mud mortar mixed with bhusa 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay: 1 cow dung) and covered with flat tile bricks of class designation 100 with pointing and grouted with lime mortar 1:2 (1 lime 2 Surkhi) mixed with 2% of ontegral water proofing compound by weight of cement and finished neat with FPS brick tile, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	2620	SQM
<b>28</b>	Anti-termite treatment of wood work (as per prescribe process and specification) including removal of old paint layer and polishing of wooden planks of flooring/roofing (old planks which is reuse).Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	4500	SQM
<b>29</b>	Cleaning, repairing, replacement of damaged part and Reinstallation of traditional style ms galvanized sheet moulded false ceiling of thickness 3 mm suspended from ceiling (as per traditional/ existing design and detail in the building complex under the supervision of, architect /site engineer) including polishing /paint two coat of enamel paint over base coat of primer and antirust treatment of old , etc. all complete.	400	SQM
<b>30</b>	Providing and fixing fire retardant double layer flexible canvas cloth false ceiling stretched on a teak wooden frame (of section 25mmX37mm) suspended from true ceiling as per details and grid mentioned in the drawings. The canvas sheet to have a thickness of 2.5mm , Blend: 96 % Cotton 4 % Lycra, coated with fire retardant layer and as per approved colour. Item include cost of teak wooden support frame work of size 50mm x75 mm and stainless steel wires, holdfast/anchors etc. Canvas to be suspended with frame work above existing top level of cornice with all leads/ lifts and support structure required to undertake the work as per direction of engineer in-charge/Architect	1365	SQM
<b>REFIX DOORS/WINDOW /VENTILATORS</b>			

31	Repair and refixing of doors, windows and ventilators werever shutter damage /broken / detoriated is replaced with well seasoned and chemically treated teak wood frame/deodar wood shutter single/ double leaves 40-50 mm thick fully/partialy glazed openable shutters, panneling of door in wood /colur glass as per specification ,for doors/windows/ventilator as per the existing original design and pattern /or design as per drawing instructed by the Architect including all necessary fitting/ hardware like screws, nails,metal spikes ,ornamented nails ,metal patterns of flower, metal ribets , parliamentary hinges, tower bolts, handles, traditional handmade ms nails, traditional locking system ,decorative features( butt hinges/tower bolt/ handle /door Aldrop/lock ) of the same design, size and weight, etc . Item to also include making all the mouldings and design of the panels werever missing/damage/latter added is replaced as in the original detail with all beading, patti,carving,marking , as per size given/ orignal existing detail/ drawing of shutter /pannel and removal of multiple layer of paint /enamel paint repeatedly on the shutter as prescribe process and specification and finish with primer and redoxide paint as approved by the Engineer In-charge/ Architect. including all leads, lifts and carriage upto all heights.		
	Of area 3 sq. metres and below	20	EACH
	Of area beyond 3 sq. metres	21	EACH
32	Repair of existing colour glass doors, windows and semi circular ventilators (as per original / existing design) including repair of damaged wooden member ,replacement of coloured glass ,providing new stained glass of colour Cobalt blue /emerald green /deep red/ as per the existing original design and pattern /or design as per drawing instructed by the Architect including all necessary fitting/ hardware like screws, nails,metal spikes ,ornamented nails ,metal patterns of flower, metal ribets , parliamentary hinges, tower bolts, handles, traditional handmade ms nails, traditional locking system ,decorative features( butt hinges/tower bolt/ handle /door Aldrop/lock ) of the same design, size and weight, etc . Item to also include making all the mouldings and design of the panels werever missing/damage/latter added is replaced as in the original detail with all beading, patti,carving,marking , as per size given/ orignal existing detail/ drawing of shutter /pannel and removal of multiple layer of paint /enamel paint repeatedly on the shutter as prescribe process and specification and finish with primer and polish as approved by the Engineer In-charge/ Architect. including all leads, lifts and carriage upto all heights.	25	SQM

<b>NEW DOORS/WINDOW /VENTILATORS</b>			
<b>33</b>	<p>Providing and fixing well seasoned and chemically treated Teak wood work in frames of doors, windows, clerestory windows, ventilators, other frames and wrought frame of approved size, as per traditional wooden joinry of members, and fixed in position in traditional detail/manner with the help of holdfasts / traditional holdfast / handmade nails etc. Item is inclusive of carving /ingraving of pattens on frames as per existing patterns on original frames / detail drawing and finish with primer and redoxide paint as approved by the Engineer In-charge/ Architect. Item also include all leads, lifts and carriage upto all heights including necessary framework/scaffolding etc required to complete the task. Contractor to ensure that moisture content of wood is well within IS codes and Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc..Item also includes Anti termite treatment of wood before fixing the frame at site, coating/painting of section of embedded timber coming into contact with masonry with tar application/ solignum. Measurement of final finished product will be used for the purpose of volume calculation and for payments.</p>	10	CUM
<b>34</b>	<p>Providing and fixing doors, windows and ventilators shutters of well seasoned and chemically treated deodar wood single/ double leaves 40-50 mm thick fully/partialy glazed openable shutters, panneling of door in wood, for doors/windows/ventilator as per the existing original design and pattern /or design as per drawing / as instructed by the Architect including all necessary fitting/ hardware like screws, nails, metal spikes, ornamented nails, metal patterns of flower, metal ribets, parliamentary hinges, tower bolts, handles, traditional MS handmade nails, traditional locking system (hook and chain), decorative features (butt hinges/tower bolt/ handle /door Aldrop/lock) of the same design, material, size and weight, etc. Item to also include making all the mouldings and design of the panels as in the original detail with all beading, patti, carving, marking, as per original existing designs and size of shutters. shutters/panel should be finished from all sides with polished of appropriate shade as approved by the Engineer In-charge / Architect. Item also include all leads, lifts and carriage upto all heights including necessary framework/scaffolding etc required to complete the task. All timber to be free of knots, cracks etc..Item also includes Anti termite treatment of wood before fixing at site, coating Overall Length and width of the shutter /panel will be measured of final finished product for the purpose of area calculations &amp; payments.</p>	160	SQM

35	Providing and fixing deodar wood semi circular ventilators including chowkhat and shutters (as per original / existing design) providing with coloured glass of Cobalt blue /emerald green /deep red/ as per the existing original design and pattern including ISI marked black enameled MS butt hinges with all necessary hardware screws / welding to the iron flat, panneling beadings / pann and polish with approved wooden polish .as directed by Engineer incharge/ Architect,	45	SQM
<b>FLOORING</b>			
36	Providing and laying 75 mm thick fine dressed sand stone flooring over 20 mm (average) thick base of lime mortar 1:2 (1lime : 2 surkhi) with joints finished flush and pointed with mortar mixed with pigment of matching colour	2500	SQM
37	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Architect Engineer-in-charge of minimum size 600x1200 or as per drawing including required additional black/gray granite patti /square /tikki of size 25-200 mm for making pattern /divisions , over 20 mm (average) thick base of lime mortar 1:2 (1 lime : 2 surkhi) laid and jointed with lime mortar, including rubbing and polishing complete with : Makrana white second quality	500	SQM
38	Sub base for flooring: sub- base of 50mm thick bed of local sand evenly spread and rammed brick ballast bed 150mm thick with lime mortar in equal proportion, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	3000	SQM
39	Restoration/repairing/cleaning of sandstone flooring front of darbar hall including replacement of damaged stone by using sand stone of size 1650x750x75 mm wherever required . item inclusive of cleaning stone surface from yellowness, blackness, algae growth, dust, dirty oil accretions, lime and gypsum deposits, soot, graffiti, joining of gaps, taking out nails and other additions, filling of holes/ voids in sand stone and application of preservatives coating to prevent superficial decay, under the strict supervision of archaeological chemist or art conservator.	210	SQM
40	Providing and fixing surface perforated drain covers using 50 mm thk red sand stone of approved quality and type to match the existing flooring on site as directed by the Architect or Engineer in Charge. Item to include cutting the red sand stone as per the sizes for the covers, including providing the necessary finishing etc. complete	36	SQM



41	Lime plaster 15 to 40 MM thickness on wall/vertical surfaces Providing and application of Lime – surkhi Plaster 1:1 (1 slaked Lime: 1 surkhi) on wall surfaces of thickness between 15 to 40 MM including organic additives like sugarcane molasses, extracts of beil,maithi, etc. as per traditional practices. The preparation of mortar is to be done following traditional practice includes using chakki/garat (wet grinding of lime and sand by heavy stone mill / chakki/garat), application of mortar in 3 layers with last layer of 6 MM thick, with a gap of minimum 3 days and not more than 10 days from previous layer. The item rate includes application of Loi, tampering, beating, reworking of plaster till the shrinkage cracks disappear and desired finish achieved and curing for 10 days. Item also includes all lead and lift, establishing work yard / chakki, scaffolding, formwork tools and implements etc.	5865	SQM
42	Lime plaster 5 to 10 MM thickness on ceiling and curved surfaces. Providing and application of Lime – surkhi Plaster 1:1 (1 slaked Lime: 1 surkhi) on wall surfaces of thickness between 5 to 10 MM including organic additives like sugarcane molasses, extracts of beil,maithi, etc. as per traditional practices. The preparation of mortar is to be done following traditional practice includes using chakki/garat (wet grinding of lime and sand by heavy stone mill / chakki/garat), application of mortar in single layers, with a gap of minimum 3 days and not more than 10 days from previous layer. The item rate includes application of Loi, tampering, beating, reworking of plaster till the shrinkage cracks disappear and desired finish achieved and curing for 10 days. Item also includes all lead and lift, establishing work yard / chakki, scaffolding, formwork tools and implements etc.	660	SQM
43	Providing & applying Lime kara 1:2 (1lime cream : 2 Zikki powder) grinding mortar with grinding mill/manually on lime base,on all flat surface in two coats.First coat applying 3mm to 4mm thick and curing properly at least 7 days,second finishing coat done after 7days of previous coat as per traditional practice.(thickness not more than 6 mm.)	4170	SQM
44	Providing & applying Lime kara 1:2 (1lime cream : 2 Zikki powder) grinding mortar with grinding mill/manually (on lime sand/sand plaster base) on decorative/ornamental lime plaster in two coats.First coat applying 3mm to 4mm thick and curing properly at least 7 days,second finishing coat done after 7days of previous coat as per traditional practice.(thickness not more than 6 mm.)	2245	SQM

45	Decorative plaster work in lime surkhi mortar (1:2) as per traditional practice and design, the mortar should be prepared by the grinding mill only. The thickness varying from 10mm to 100mm as per design, as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	550	SQM
	<b>OTHER WORKS</b>		
46	Providing & fixing new sandstone (of approved quality) chajjas (As per existing size and thickness) by replacing damaged / missing stone chajja, wherever required as per old existing design, including cost of dismantling /making of wall/parapet where chajja is inserted /fixed following existing design & construction details. Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .at all heights & including all leads and lift.	330	MTR
47	Providing and fixing terracota balustrade as per old design ,materials and specification wherever missing/ damaged in the parapets/ railings. Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	900	EACH
48	Making of parapet in brickwork as per original design of height upto 900 mm including providing and fixing terracota balustrade ,brick cornice and decorative brick work finishing with lime surkhi plaster with lime mortar 1:2(1 lime :2 surkhi) and lime Kara on curved or decorative pillars, surfaces or embellishments as per decorative ornamental designs. Item includes cost of shuttering /formwork/ scaffolding /safety measure /use of specified equipment for workers of building required to complete the work	155	MTR
49	Making of cuplas/ kiosks over parapet of size 400x 400x500 mm In brick work with proper carving and decoration including lime plaster and stucco work finished with kara at desired location of parapet .stainless steel rod of 10 mm dia and upto 750 mm length shall be used as an anchor in the construction. Item includes cost of shuttering /formwork/ scaffolding /safety measure /use of specified equipment for workers of building required to complete the work	125	EACH
50	Cleaning ,Painting( with two coat of enamel paint over base coat of primer ) and antirust treatment of old grill ,metal balustrade and jaali of balcony etc	3	SQM

<b>51</b>	Repairing of existing fireplace with teak wood as per old design intact ,including removal of multiple layer of enamel paint from the surface /masonry work wherever required and finish with lime kara /paint as per prescribed process and specification and polishing of fixture .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	1	job
<b>52</b>	Providing and fixing new marble Jali (in railing/ parapet) as per original design in the darbar hall and refixing of the marble jaali by making proper joinry as per existing pattern including replacement of brocken stone with new one of same thickness werever applicable, also include cleaning and polishing of stone as directed by conservation architect / site incharge .	3	SQM
<b>53</b>	Providing and fixing new sandstone Jali (in railing/parapet) as per original design open plateform and front facde including jali pannele, pillars, post cuplas/kiosk /gola addjoining support column and painting in white appoxy paint .Finishing the jaali with white cement based paint as per direction of Architect /Engineer in-charge.	10	SQM
<b>54</b>	Repairing and cleaning of existing wooden staircase of darbarhall as per old design intact ,including replacement of damaged wooden member with teak wood /masonry work werever required and finish with wooden polish as per prescribed process and specification and polishing of fixture .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	1	JOB
<b>55</b>	Cleaning /polishing /treatment of decorative marble stone surface to clean from yellowness, blackness, algae growth, dust, dirty oil accretions, lime and gypsum deposits, soot, graffiti, joining of gaps, taking out nails and other additions, filling oh holes/ voids in marble and application of preservatives coating to prevent superficial decay, under the strict supervision of archaeological chemist or art conservator.	35	SQM
<b>56</b>	Providing and fixing of missing hanging decorative stone kiosk with/lattoo between the two brackets with complete length of support stone of 1mtr as per old design ,materials and specification .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	24	EACH

57	Making and fixing of missing hanging decorative stone kiosk lattoo of bracket as per old design ,materials and specification .Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	36	EACH
58	Providing and fixing of damaged stone of roof/chajja of musician area at darbar hall outer plateform as per as per old design ,materials and specification.	3	SQM
59	Making and fixing of missing hanging decorative kiosk with/lattoo of roof/chajja of musician area at darbar hall outer plateform as per as per old design ,materials and specification	20	EACH
60	Repairing cleaning and refixing of ms railings of darbar hall including replacement of damaged wooden member of corner of railing by 3" x 3" sheesham wood polished frame as per old design .item including cleaning and painting of ms railing with two coat of emulsion paint over the base coat of primer .	18	EACH
61	Restoration and repairs of water down drain pipe (naali/parnalis) up to 8 mtr As per original design without damaging the old naali. Item includes providing and fixing of pipes wherever required,brickmassonry in front of naali , plaster over the pipe as per old design and ms jaali cover over pipes at terrece levels.	10	EACH
<b>RETAINING/RESTORATION OF OLD PORCH</b>			
62	Providing & fixing stone base plate 300x300x75MM for base of wooden post of approved sand stone with dressing complete as per existing design/pattern/approved design and fixing of the stone complete in all respect as per direction of Engineer incharge.	44	EACH
63	Providing and fixing rectenguler wooden post with bracets at ofsize 100x125 mm and heights of 2.4 mtr details and design as shown in the drawings similar to the base of the original post on site. The post to be constructed in teak wood base of 200x200x200 including carving moulding with approved design . Each side of the post to have brackets of desired type as directed by the Architect . Item to include painting/polishing/primer of wooden post and all necessary hardwere as per required all complete .	44	EACH
64	Providing and laying of teak wooden carved /ingraved beams ,ties,karis (purlins) section of various sizes ,150X 125, 100x150,50x75, MM ) and length as per design including all fixtures and fastenings with antitermite , as directed by Engineer incharge/ Architect, and including all leads, lifts and carriage. All complete.	13	CUM

65	Providing and fixing terracotta roof tiles to exactly match size, thickness, shape, glaze properties, colour and design including of the exact shade and colour to match the original historic tiles on site. The tiles to be 300x 200mm, 20mm thick, fixed using non corrosive Stainless Steel / Brass counter sunk screws (2 nos. per tile) as per original detail. Item to include glazed decorative moulded ring of the same size, design and colour as per the original rings installed on site. The decorative rings to be fixed using lime mortar as per original detail. Sample of tiles to be shown to the Architect or Engineer in Charge for necessary approvals before ordering bulk quantities for fixing the same on site. Item to include all necessary testing, sampling, tools, hardware, Battens, scaffolding etc. complete	320	SQM
66	Providing and fixing terracotta roof ridge/hip tiles to exactly match size, shape, glaze properties, colour and design including of the exact shade and colour to match the original historic tiles on site. The tiles to be, 300x 150mm, 20mm thick, fixed using non corrosive Stainless Steel / Brass counter sunk screws (2 nos. per tile) as per original detail. Item to include glazed decorative moulded ring of the same size, design and colour as per the original rings installed on site. The decorative rings to be fixed using lime mortar as per original detail. Sample of tiles to be shown to the Architect or Engineer in Charge for necessary approvals before ordering bulk quantities for fixing the same on site. Item to include all necessary testing, sampling, tools, hardware, scaffolding etc. complete	40	RMT
67	Repairing cleaning polishing/painting and refixing of front old gate of sadar manjil.item includes repair of damaged part of gate as per old design without damaging the gate	1	JOB
68	Providing and fixing of stone flag holders as per old design ,materials and construction detail. item cost include necessary dismantling works and making good after refing the flag holders. Item includes cost of shuttering /scaffolding /safety measure /use of specified equipment for workers of building required to complete the work .	30	EACH
<b>ART WORK</b>			
69	Documentation of ornamental work /paintings/decorative art work before conservation as per standard conservation practice and treatment carried out to be detailed in a report. Work to include all material costs and to be executed by art conservators with minimum 3 years experience in wall painting conservation under continuous on-site supervision of senior art conservator having minimum 10 years experience in the	640	SQM

	field of wall painting conservation.		
<b>70</b>	Conservation of ornamental work /paintings/decorative art work in the darbar hall by cleaning painted surfaces of dust, dirt, deposits, oil accretions etc. with suitable solvents, gels & dry cleaning methods, consolidation of weakened paint layers and support using compatible adhesives and consolidants, removal of cement plaster, stitching of crack grouting of bulges/cavities with compatible lime-based grouts without synthetic adhesives, extraction of salts where present, and filling of small lacunae to level of surrounding plaster with compatible lime-based fills. Documentation of paintings , during, and after conservation to be carried out as per standard conservation practice and treatment carried out to be detailed in a report. Work to include all material costs and to be executed by art conservators with minimum 3 years experience in wall painting conservation under continuous on-site supervision of senior art conservator having minimum 10 years experience in the field of wall painting conservation.	640	SQM
<b>71</b>	Providing tinted lime punning including fine lime surkhi plaster on areas of lost plaster and exposed brick surfaces. Work to include application of fine lime plaster (1:1:1 lime:surkhi:sand) followed by application of 2 mm thick tinted lime punning to a required finishing flush with surrounding plastered surfaces. Lime for punning to be prepared by slaking for minimum 8 weeks. Work to be executed by skilled artisans under the supervision of art conservator having minimum 3 years experience in the field.	260	SQM
<b>72</b>	Chemical cleaning of stone surface to clean from yellowness, blackness, algae growth, dust, dirty oil accretions, lime and gypsum deposits, soot, graffiti, joining of gaps, taking out nails and other additions, filling oh holes/ voids in marble and application of preservatives coating to prevent superficial decay, under the strict supervision of archaeological chemist or art conservator. For wall ,ceiling ,decorative ,carved surfaces including carvings, chajja, brackets,plinth ,flag post holders etc.	900	SQM
	<b>PLUMBING</b>		

<b>73</b>	Providing and fixing solid state, no touch operating, fully hygienic <b>hand drier</b> of approved shade <b>with single blower</b> , with time delay, summer & winter control, music while drying, volume ON/OFF controls including providing necessary brackets, cable from drier to Plug, Plug top key and lock etc, complete as required of approved Make-auronics/hindware/cera or equivalent as per direction of Engineer in Charge.	8	Each
<b>74</b>	Providing and fixing G. I. floor drain consisting of 100x50 mm G. I. elbow (grating and G. I. pipe to be paid separately), complete as per instruction as per direction of Engineer in Charge.	25	Each
<b>75</b>	Providing and fixing <b>Heavy class SS grating</b> with Cockroach proof SS strainer of approved design including setting in floor with cement mortar to match with floor finish as per architect requirement suitable for waster and FT.		
	Size 100 mm x 100 mm	15	Each
	Size 150 mm x 150 mm	15	Each
<b>76</b>	Providing and fixing in position <b>CPVC pipe and fittings</b> of heavy class (c) conforming to IS:1239 (for waste pipe from individual fixtures to floor trap / floor drain & vent pipe) Including fixing at wall / ceiling level supported by galvanized clamps and hangers providing two coats of synthetic enamel paint of approved shade as per pipe colour code over a coat of primer <b>or</b> cutting & chasing in wall & floors, providing protection to embedded GI pipes & fittings by wrapping of 400 microne polythene sheet over two coats of bitumen including proper overlaps in joints complete as required and making good the chase by using 1:1 cement mortar as per direction of Engineer in		
	32 mm dia.	60	Metre
	40 mm dia.	50	Metre
	50 mm dia.	35	Metre
<b>77</b>	Providing and placing on terrace (at all floor levels polyethylene water storage tank ISI : 12701 marked water storage tank with cover and suitable locking arrangement and making necessary holes for inlet outlet and overflow pipes but without fittings and the base support for tank	30000	Per ltrs

78	Providing and fixing thermal insulation over hot water pipes with 9 mm thick nitrile / polyolefin or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having a thermal conductivity not exceeding 0.040 w/mk @ 40 deg. C over pipes with aluminium cladding / protective coating of FRP following sizes including all required accessories complete as per manufacture's specifications as per direction of Engineer in Charge of all dia .	300	mtr
79	Refixing water cooler including all fittings	3	each
80	Constructing brick masonry manhole with 75 class designation F.P.S. bricks in cement mortar 1:4 (1 cement : 4 coarse sand ) R. C. C. top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand: 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design. Inside size 90x80cm and 45 cm deep including CI Cover with frame (light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23 Kg and weight of frame 15 kg)	2	each
<b>FIRE FIGHTING SYSTEM</b>			
81	Providing and laying MS ERW black pipes as per relevant IS 1239/3589 marked including all accessories such as screwed/welded flanges, tees, reducers etc. conforming to IS standards complete including painting, welding, jointing and neoprene gaskets, nuts, bolts etc. as required.		
	150 mm dia pipes and fittings complete with anti corrosive painting, wrapping and coating of the pipes as per IS:10211 in all kinds of soil at a depth 1.5 m including excavation and refilling the trench all complete.	200	Metre
	100 mm dia pipes and fittings complete with anti corrosive, wrapping and coating of the pipes as per IS:10211 in all kinds of soil at a depth 1.5 m including excavation and refilling the trench all complete.	80	Metre
	80 mm dia pipes and fittings complete with anti corrosive, wrapping and coating of the pipes as per IS:10211 in all kinds of soil at a depth 1.5 m including excavation and refilling the trench all complete.	100	Metre



82	Providing, fixing, welding joints and testing of heavy class M.S. ERW black pipes as per relevant IS 1239/3589 with special accessories tees, elbows, flanged joints, rubber insertion, nuts, bolts, washers or welded joint with flange joints on bends, including fixing the pipe with suitable flat iron strip clamps/brackets structural members dash fastener, civil breakage, making good the same etc. painting with a primer coat and two coats of postal red enamel etc. complete as required. (for wet riser system)		
	150 mm dia	200	Metre
	100 mm dia	80	Metre
	80 mm dia	100	Metre
83	Supplying and fixing stainless steel Single headed internal hydrant valves with instantaneous stainless steel couplings of 63mm dia. With cast iron wheel ISI marked conforming to IS 5290 (Type-A) with blank stainless steel cap and chain, stainless steel orifice plate for reducing the pressure upto 3.5 kg/cm <sup>2</sup> at outlet.	10	Each
84	Supplying and fixing stainless steel Single headed external yard hydrant valves with instantaneous stainless steel couplings of 63mm dia. With cast iron wheel ISI marked conforming to IS 5290 (Type-A)	8	Each
85	Providing 63 mm dia 15 m long fungus resistant reinforced rubber lined hose pipe marked to IS:636 Type A with stainless steel male & female.	10	Each
86	Providing 63mm (2½ ") dia 15 m long canvas hose pipe complete with stainless steel male & female coupling stainless steel wire wound with the pipe The pipe shall confirm to IS. 4927	8	Each
87	Providing and fixing 63 mm dia standard stainless steel short Branch Pipe as per IS 903 with 20 mm nozzle complete with fixing clamps.	12	Each
88	Providing and fixing first aid hose reel full swinging type with 30 m length x 20 mm dia rubber lined pipe with ABS plastic shut off nozzle of 6 mm dia. The hose reel shall conform to IS requirements. Rate shall include 25 mm dia pipe connection from riser to hose reel including flexible pipe, sockets, nipples, elbows and 25 mm ball valve.	8	Each
89	Providing & fixing <b>M.S Hose cabinet with powder coating of postal red color</b> (of size 750MMx600MMx450MM) made of 14 G M.S. sheet with 6mm thick glazed glass doors i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve , 2nos 15m long hoses and one no. branch pipe complete as per direction of Engineer incharge.	8	Each

90	Providing and fixing cast iron Butterfly valve of the following size complete with bolts, nuts, washers and neoprene gaskets as per specifications.		
	150 mm dia	8	Each
	100 mm dia	2	Each
	80 mm dia	8	Each
91	Providing and fixing inspectors test assembly complete with 50 mm test valve, sight glass sectional drain valve, union with corrosion resistant orifice all complete in all respects.	5	Each
92	Providing and fixing Four Way Fire Brigade Inlet to Hydrant outside the Building (Butterfly valve and non return valve to be paid separately) complete in all respects :		
	150 mm dia	8	Set
	Providing and fixing suction coupling for fire brigade drawl of water from tank with 150 mm dia MS(Heavy class) pipe and foot valve (Pipe max 24 M long)	2	Set
93	Providing and fixing set of "Siamese" quadruplet instantaneous fire brigade inlet connections comprising of four gunmetal instantaneous male inlet coupling 63mm dia with plug and cap, chain bends, tees etc. for inlet to the static tank with 20m long pipe.	2	Each
94	Providing & fixing <b>M.S Hose cabinet</b> door with powder coating of postal red color (of size minimum 1200mm wide, 2100mm height) made of M.S sheet 14 G with glass front door and locking arrangement to accommodate 2-hoses, one branch pipe and to accommodate F.A. hose reel in addition for internal hydrant complete as per direction of Engineer incharge.	8	Each
95	Supplying and installing cylindrical type air vessel of 300mm dia, 1.5m high fabricated out of 8mm thick MS plate suitable for 7kg/sqcm. working pressure complete with 25mm gunmetal air release valve, safety valve, pressure gauge etc as required. The air vessel shall be continuous welded construction and painted with two coats of Postal red enamel paint outside over a coat of primer and Epoxy paint inside.	8	Each
96	Providing and fixing Fire Man axe as required with Test Certificate of 20,000 volts.	12	Each
	<b>FIRE EXTINGUISHERS</b>		
97	Providing and fixing 9 Liters capacity fire extinguisher water type Gas Pressure conforming to IS: 940 marking, fixed to wall. (ISI Marked)	8	Each

<b>98</b>	Providing and fixing ABC powder type fire extinguishers consisting of welded MS cylindrical body automatic modular ABC powder type extinguisher actuated through a sprinkler head mounted on the extinguisher body finished externally with red enamel paint and fixed to wall with brackets complete with internal charge.		
	Capacity 5 kg.	8	Each
<b>99</b>	Providing and fixing CO2 type fire extinguisher as per IS 2878 with discharge time of 10 sec to 18 sec and gas storage pressure of 85 kgf/sq cm fixed to wall with brackets complete with internal charge.		
	Capacity 4.5 kg.	8	Each
	Capacity 6.5 kg.	6	Each
	Capacity 22.5 kg Trolley mounted	1	Each
<b>100</b>	Providing and fixing 9 Liters capacity mechanical foam type fire extinguisher IS marked conforming to IS 13386 with all accessories complete.	2	Each
<b>101</b>	Providing and fixing trolley mounted mechanical foam type 50 Liters capacity without side cartridge type fire extinguisher IS marked conforming to IS 13386 with all accessories complete.	2	Each
<b>102</b>	Providing and fixing self glowing Exit sign board size 350x200mm single side painted made of luminescent safely, rigid sheet in standard colour photo, luminescent sheet made of crystals consisting mainly sulphide in protective glass like sheet green and yellow crystal luminescent (glass in dark) by action of light.	20	Each

## ELECTRICAL\_PWD

Sr No	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Wiring for light point / fan point /exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed pvc /wooden Conduit, with modular switch,modular plate ,suitable GI Box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	a) Group C	260	Point	718.00	186680.00
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed PVC/wooden conduit 2 way modular switch,modular plate,suitable GI box and earthing the point with 1.5 sq.mm .FRLS PVC insulated copper conductor single core cable etc as required.	10	Point	770.00	7700.00
3	Wiring for light /power plug with 2x4 sq.mm FRLS PVC insulated copper conductor single core cable in surface /recessed PVC/wooden conduit along with 1 No 4 sq.mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	2000	Meter	162.00	324000.00
4	Wiring for light /power plug with 4x4 sq.mm FRLS PVC insulated copper conductor single core cable in surface /recessed PVC/wooden conduit along with 2 No 4 sq.mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	400	Meter	275.00	110000.00
5	Wiring for circuit/submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor single core cable in surface/recessed PVC/wooden Conduit as required.				
	2x1.5 sq.mm + 1x1.5 sq.mm earth wire	1000	Meter	106.00	106000.00
	2x2.5 sq.mm + 1 x 2.5 sq.mm earth wire	5000	Meter	131.00	655000.00
	2 x 4 sq.mm + 1 x 4 sq.mm earth wire	250	Meter	162.00	40500.00

	2x6 sq.mm + 1x6 sq.mm earth wire	250	Meter	221.00	55250.00
	4x4 sq.mm + 2x4 sq.mm earth wire.	250	Meter	275.00	68750.00
	4x10 sq.mm + 2x10 sq.mm earth wire.	250	Meter	597.00	149250.00
	4x16 sq.mm + 2x16 sq.mm earth wire	250	Meter	883.00	220750.00
6	Supplying and fixing suitable size GI /wooden box ,as per requirement/design with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch ,connection etc as required.	100	Each	276.00	27600.00
7	Supplying and fixing suitable size GI /wooden box ,as per requirement/design with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 15/16 and 5/6 amps modular socket outlet with shulter and 15/16 amps modular switch connection, etc as required.	210	Each	303.00	63630.00
8	Supplying and fixing call bell/ buzzer suitable for single phase ,230 volts ,complete as required.	5	Each	61.00	305.00
9	Supplying and fixing of following sizes of medium class PVC conduit along with acessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
	25 mm	1200	Meter	65.00	78000.00
	32 mm	800	Meter	85.00	68000.00
	50 mm	200	Meter	144.00	28800.00
10	Supplying and fixing 20 amps, 240 volts SPN industrial type, socket outlet with 2 pole and earth metal enclosed plug top along with 20 amps 'C' Curve, SP, MCB in sheet steel encloser on surface or in recess with chained metal cover for the socket outlet and complete with conncections, testing & commissioning etc as required.	30	Each	868.00	26040.00
	<b>SUB-HEAD II:- PANNEL</b>				

11	Supply, installation, testing and commissioning of pannel , double door fully compartmentalised, dust and vermin proof, made out of 2 m.m. thick CRCA sheet steel, , lockable, , mounted on wall, powder coated/ epoxy painted, cable entry from bottom, with metering & indicating lamp with following configuration-				
	<b>INCOMER</b>				
	100A 4P MCCB with timer & contactor - 1 No.				
	100A, TPN Aluminium bus bar.				
	20 x 5 sq. m.m. Aluminium earth bus.				
	<b>OUTGOING</b>				
	10 A SP MCB - 15 Nos.				
40 A DP MCB - 02 Nos.	1	Each	35000	35000.00	
<b>SUB-HEAD III:- DISTRIBUTION BOARDS</b>					
12	Supplying and fixing following way prewired TP & N, MCB distribution board of sheet steel for 415 volts on surface /recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FRLS PVC insulated copper condutor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isoltor).				
	6 way (4+18) Double door	4	Each	9496.00	37984.00
	8 way (4+24) Double door	8	Each	10405.00	83240.00
13	Supplying and fixing following way, single pole and neutral, prewired, sheet steel, MCB distribution board, 240 volts, on surface /recess, complete with loose wire box, terminal blocks, duly prewired with suitable size FRLS PVC insulated copper condutor upto terminal blocks, tinned copper bus bar, neutral link, earth bus, din bar, detachable gland plate, interconnections, powder painted including earthing etc as required. (But without MCB/RCCB/Isolator)				
	4 way (2+4) Double door	4	Each	2508.00	10032.00

14	Supplying and fixing following way prewired vertical type 415 volts TP&N MCB distribution board surface/recssed of sheet steel dust protected duly powder painted inclusive of 200amps tinned copper bsu bar common neutral link earth bar din bar for mounting MCB's terminal connectors for all incoming and outgoing circuits duly prewired with FRLS PVC insulated copper conductor upto the trminal connector/ neutral link earthing etc. as required (But without MCB/MCCB) (Note: VTPN DB is normally used where 3 phase outlets are required).				
	4 way double door	4	Each	7901.00	31604.00
15	Supply and fixing 5 amps to 32 amps rating,240/415 volts.'C' curve miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections,testing and commisioning etc.as required				
	a) Single pole	200	Each	169.00	33800.00
	b) Triple pole	4	Each	887.00	3548.00
16	Supply and fixing following rating,double pole,240 volts,MCB in the existing MCB DB complete with connection ,testing and commissioning etc. as required.				
	a) 40 amps	4	Each	218.00	872.00
17	Supply and fixing following rating,four pole,415 volts,MCB in the existing MCB DB complete with connection ,testing and commissioning etc. as required.				
	a) 63 amps	20	Each	670.00	13400.00
	b) 100 amps	4	Each	851.00	3404.00
18	Supply and fixing following rating,double pole (single phase and neutral),240 volts,RCCB having a sensitivity current upto 300 amp in the existing MCB DB complete with connection ,testing and commissioning etc. as required.				
	a) 25 amps	10	Each	1645.00	16450.00
	a) 40 amps	50	Each	1714.00	85700.00
	<b>SUB-HEAD IV :- WIRING FOR TELEPHONE &amp; TV POINTS</b>				

19	Supplying and fixing of following size/modules, GI/wooden box along with modular base & cover plate for modular switches in recess etc as required.				
	a) 75 mm x 75 mm x 60 mm deep	25	Each	166.00	4150.00
20	Supplying and drawing following pair, 0.5.mm dia FR PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
	2 Pair	1000	Meter	18.00	18000.00
21	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	100	Meter	28.00	2800.00
22	Supplying and fixing following modular switch/ socket on the existing modular plate and switch box including connections but excluding plate etc .as required.				
	a) Telephone socket outlet	20	Each	95.00	1900.00
	a) TV socket outlet	5	Each	94.00	470.00
	<b>SUB-HEAD V:- EARTHING</b>				
23	Earthing with G.I earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc. with charoal or coke and salt as required.	3	Set	4490.00	13470.00
24	Earthing with Copper earth plate 600 mm x 600 mm x 3 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc. with charoal or coke and salt as required.	3	Set	9292.00	27876.00
25	Supplying and laying 25 mm x 5 mm Copper strip at 0.50 meter below ground as strip earth electrode , including connection/terminating with G.I. nut, bolt, spring, washer etc. as required.	80	Meter	753.00	60240.00



26	Providing & fixing 25mm x 5mm GI Strip in 40mm dia GI pipe from earth electrode including connections with GI nut, bolt, spring, washer excavation and re-filling etc. as required.	150	Meter	421.00	63150.00
	<b>SUB-HEAD VIII:- LIGHTING CONDUCTOR</b>				
27	Providing and fixing of lighting conductor finial, made of 25mm dia 300 mm long, copper tube, having single prong at top , with 85mm dia 3 mm thick copper base plate including holes etc. complete as required.	3	Each	764.00	2292.00
28	Jointing copper / G.I tape (with another copper / G.I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	3	Each	72.00	216.00
29	Providing and fixing G.I tape 20 mm X 3 mm on parapet or surface of wall for lighting conductor compete as required.(for horizontal run).	800	Meter	68.00	54400.00
30	Providing and fixing G.I tape 20 mm X 3 mm on parapet or surface of wall for lighting conductor compete as required.(for vertical run).	200	Meter	72.00	14400.00
31	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long. With 4 nos of tinned brass bolts, nuts, check nuts and spring washers etc. complete as required.	3	Each	71.00	213.00
32	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	150	Meter	141.00	21150.00

## ELECTRICAL\_NON\_SOR

S.NO	DESCRIPTION	QTY	UNIT
1	S/F Wooden conduit. Supplying and fixing of following sizes of wooden conduit along with accessories in surface/recess including, fixing cap with nails, clips, cutting the wall wherever necessary and making good the same in case of recessed conduit as required.		
	50 MM wide	500	Metre
	75 MM wide	1500	Metre
2	Supplying and fixing of 1no 16 Amp moulded switch and 2 nos 6amp moulded socket in protection with box and including with 3x2.5sqmm. (P+N+E) FRIS. PVC insulated copper conductor wire in surface / recessed in IS embossed black enameled 2mm thick PVC conduit and earthing the 3rd pin complete as per specification and as required. ( 2 set per circuit shall be wired) - COMPUTER POINTS	30	Each
3	Supplying & fixing 75mm x 75mm x 10 mm zinc passivated box with mould cord outlet complete with RJ 45 sockets as required for computer data point.	100	Each
4	Supplying & laying CAT 6 for LAN wiring in PVC/wooden conduit Cable Tray complete as required.	3000	Each
5	Supplying and fixing of the following sheet steel clad wall / recess mounting telephone tag blocks of krone make constructed from 14 SWG sheet steel finished with red oxide coating of two coats of paint with hinged gasketted powder coated door and complete.		
	a) 10 pairs	2	Each
	b) 50 pairs	5	Each
	<b>SUB-HEAD VI:- SWITCHES</b>		

6	Supply, installation, testing and commissioning of SWITCHES as per the details below including necessary hardware such as clamps, nuts, bolts, nails screws and suspension rods as required for fixing the fixtures in position as directed by the site incharge /architect at site. Vintage style electrical toggle Bakelite switch in round shape on ceramic/PVC based.(black colour base) as per direction of architect .SSK or Equivalent brand		
	5/6 amps switch	450	Each
	6 pin 15/16 amp socket outlet	150	Each
<b>SUB-HEAD VII:- FIRE ALARM</b>			
7	Wireless Intelligent Addressable smoke Detector capable of emitting radio waves Smoke / Heat detector should have testing button to test the complete system without generating any issue.	60	Each
8	Wireless Intelligent Addressable Manual Call Point It is generally installed within 5-7 mtr. Distance from radio emitter.	4	Each
9	Wireless Intelligent Addressable Radio emitter cum Hooter which has capability to read the zones of each detector independently and send it to wireless panel . Radio emitter has inbuilt hooter so it also works as hooter . Single radio emitter can read the zones of different detectors	4	Each
10	Wireless Intelligent Addressable Control Panel with 99 different Zones with inbuilt siren etc.It has capability to receive wireless signals from the Hooter and displays it on the panel.	1	Each
11	Wireless Intelligent Addressable Control Panel with 999 different Zones with inbuilt siren etc.It has capability to receive wireless signals from the Hooter and displays it on the panel.	1	Each
12	Cable 2 core x 1.5 Sq. mm Armoured in 25mm dia fire retardant conduit	1500	MTR