



Bhopal Smart City Development Corporation Limited



REQUEST FOR PROPOSAL

REVISION 001

August 2017

“CIVIL WORK INCLUDING EXTERIOR AND INTERIOR OF INCUBATION CENTRE’S BUILDING UNDER SMART CITY BHOPAL ”

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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:

Name of the Work	CIVIL WORK INCLUDING EXTERIOR AND INTERIOR OF INCUBATION CENTRE'S BUILDING UNDER SMART CITY BHOPAL
Brief Scope of Work	The brief scope of work comprises of Carrying out supply and erection of various interior fit out for the ground floor,including furniture, internal partitions and finishes, Fire rated walls, fire rated doors etc.,Raised access flooring with edge supported rigid grid system (lay-in tiles) for IT infrastructure.Soft furnishings like blinds, carpets, sofa, etc. Floor finishing with marble/granite/vitrified tiles/ Kota stones/ArtificialMarble/Granite etc. Miscellaneous civil jobs. False ceiling work including metal & specialised ceiling.
Estimated Cost	₹ 3,65,36,465(Three crore Sixty five lakhs thirty six thousand four hundred sixty five rupees)
Period of Completion	Four months after Award of Work Order
Earnest Money Deposit	₹ 3,65,120 (Three lakh Sixty five thousand one hundred twenty rupees only)
Non-refundable cost of e-Tender Document	₹ 15,000(Fifteen thousand only)
Purchase of Tender Start Date	03.08.17 18:30 Hrs
Purchase of Tender End Date	04.09.17 17:30 Hrs
Last date & time of submission of Online Tender(Bid Submission)	04.09.17 23:30 Hrs
Period during which hard copy of the documents as per NIT shall be	05.09.17 12:00 Hrs
Date & Time of Opening of technical Bid	05.09.17 15:00 Hrs
Date & Time of Opening of Financial Bid	Will be intimated later to successful Bidder
Validity of offer	90 days from the date of opening of price bid.
Pre-Tender Meeting & Venue	11.08.2017 At BSCDCL, Bhopal Office
The tender document can be downloaded from www.mpeproc.gov.in "Corrigendum, if any, would appear only on the www.mpeproc.gov.in web site and not to be published in any News Paper".	

S.No	Name of Bidder	Section	Clause No.	Page No.	Description of Bid Document	Queries/Suggestions/ Propose changes

The pre-bid Queries shall be submitted with the given excel format (E-mail ID – smartcitycell@bmconline.gov.in)

ELIGIBILITY CRITERIA FOR BIDDER:

1. The Bidder shall be registered contractor in of appropriate class with the Central Govt./ State Governments or Central / State Government Undertakings
2. The Bidder in their own name should have satisfactorily executed the work of similar nature Semi Govt. / Govt.& Public / Private Sector Organizations in India, during **last 7 years** ending last day of month previous to the one in which bids are invited as a prime Contractor (In case of private work TDS certificate along with agreement, completion should be submitted)

Three similar completed works of similar nature each costing not less than 40% of the estimated cost

O R

Two similar completed works of similar nature each costing not less than 50% of the estimated cost.

O R

One completed work of similar nature of costing not less than 80 % of the estimated cost.

Similar works means consisting of following works.

The Bidder should demonstrate through submission of experience certificates for collective experience of handling the following disciplines of work in the above contracts:

- i. Civil Works like structural work(Glazing&ACP) ,interior and exterior finishing of building
3. The average annual financial turnover during the last 3 years ending 2016-17 should not be less than 30% of the estimated cost. To ascertain this, Bidder(s) shall furnish the financial statement (Audited balance sheet) duly certified by Chartered Accountant.
4. Bidder should submit Client/Users Certificate of satisfaction for the work they have executed.
5. The Bidder(s) net worth should be positive in the past years.
6. **Joint Ventures are not allowed.**

NOTE:-

1. The bidder should necessarily submit completion certificate of the Qualifying works from the client/user/ duly signed by an officer not below the rank of Executive Engineer or equivalent of the concerned organization
2. The Bidder shall submit the audited balance sheets / CA certified for last 3 years (2014-15,2015-16, 2016-17).
3. For the purpose of determination of turnover of the bidder, only turnover from building construction projects shall be considered. **This shall be backed by a certificate from the Statutory Auditors of the company/Chartered Accountant.**
4. For the purpose of determining the relationship of the Bidder with their group companies, only the following documents such as the Annual Report, Balance Sheet or the Auditor Certificate, shall be considered.
5. BSCDCL shall have the authority to make enquiries with the bidder's bankers and auditors.
6. The bidders shall indicate information regarding any litigation or arbitration resulting from contracts executed by the bidder in the last five years. The information shall include the name of the parties concerned, disputed amount, cause of litigation & matter in dispute.
7. Bidder shall have valid registration in GST registration' EPF Registration Certificate & PAN Card,
8. The bidder should not got black listed by any government organization (Central/State/PSU), bidder should submit affidavit signed by Director of the company.

MEMORANDUM

Annexure-I

Sl. No.	Description	Cl. No. of NIT/ITT/Clauses of Contract)	Values/Description to be Applicable for Relevant Clause (S)
1)	Name of Work		CIVIL WORK INCLUDING EXTERIOR AND INTERIOR OF INCUBATION CENTRE'S BUILDING UNDER SMART CITY BHOPAL
2)	Client/Owner		Bhopal Smart City Development Corporation Limited
3)	Type of Tender		Online percentage rate /Item rate
4)	Earnest Money Deposit		₹ 3,65,120 (Three lakh Sixty five thousand one hundred twenty rupees only)
5)	Estimated Cost		₹ 3,65,36,465(Three crore Sixty five lakhs thirty six thousand four hundred sixty five rupees)
6)	Time allowed for Completion of Work		Four months after Award of Work Order including rainy season
7)	Mobilization Advance		10% of contract value
8)	Interest Rate of Mobilization Advance		Simple Interest Rate of 10 % Percent only) (Per Annum)
9)	Schedule of rates applicable		UADD 2012,DSR 2016 and Non Sor Items
10)	Validity of Tender		90 (Ninety) Days
11)	Performance Guarantee		5.00 % (Five Percent Only) of contract value within 30 days from the issue of Letter of Award
12)	Security Deposit/Retention Money		5.00% (Five Percent Only) of the gross value of each running bill.
13)	Time allowed for starting the work		The date of start of contract shall be reckoned from 10 days after the date of agreement.
14)	Deviation limit beyond as per tender document except foundation.		Building work as per requirement. Annual repair & maintenance of buildings As per requirement.

			Note:- As per the requirement of the successful completion of the project. Prices shall be firm	
15)	Deviation limit beyond as per tender document shall apply for Foundation		Building work as per requirement	Annual repair & maintenance of buildings as per requirement
			Note:- As per the requirement of the successful completion of the project. Prices shall be firm	
16)	Escalation		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	
17)	Defects Liability Period		Two (2) years after successful completion of works.	

The intending Bidder 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. Information and Instructions for Bidders 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 Bidder. But the tender can only be submitted after uploading the mandatory scanned documents such as:-

- 1 a) Proof of e-payment towards cost of tender document,
- b) Proof of online payment through e-portal 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.

List of Documents to be scanned and uploaded within the period of tender submission:

- a. Proof of online payment / Bank Guarantee of any Nationalized or all Commercial Scheduled Bank against EMD in favor of CEO, BSCDCL.

- b. Copy of documents related to qualifying requirement of bidders as per NIT clause. c. Letter of Acceptance of tender condition unconditional as per format enclosed
- d. Certificate of Financial Turnover duly certified by CA as indicated above.
- e. GST registration number , EPF registration, PAN No, TAN No
- f. Acknowledgement towards cost of tender fee submission
- g. All pages of all the Corrigendum (if any) duly signed by the authorized person. h. Affidavit as per “Appendix-O” of tender document.
- i. Acceptance letter and Affidavit/Undertaking for Blacklisting/ Debar. Bidder to submit the affidavit on Rs. 100 stamp paper as per attached format.
- j. Should submit the list of tools plant and machinery.

If any condition or conditional rebate is offered by the Bidder, their tender shall summarily be rejected.

The Bidders 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 Bidder can re-submit revised tender any number of times but before last time and date of submission of tender as notified.

When it is desired by BSCDCL to submit revised financial tender then it shall be mandatory to submit revised financial tender. If not submitted then the tender submitted earlier shall become invalid. On opening date, the Bidder can login and see the tender opening process. Contractor can upload documents in the form of JPG format and PDF format.

Contractor to upload scanned copies of all the documents including valid GST registration/EPF 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 Bidder to perform the contract, in the overall interest of BSCDCL. In case, Bidder's capabilities and capacities are not found satisfactory, BSCDCL reserves the right to reject the tender.

Instructions for financial bid submission-

In case of Percentage Rate Tender, Contractor must ensure to quote single percentage rate in attached financial bid format. 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.

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 Bidder, rate of such item shall be treated as "0" (ZERO).

- i. Financial Bid format is uploaded in Excel Format in www.mpeproc.gov.in. At the time of financial bidding, bidder is requested to download the file, and update the same.
- ii . For SOR items bidder need to quote 1 plus percentage higher of below the quoted rate for example if bidder wants to quote 5% higher the SOR price then he have to quote 1.05 and similarly if he wants to quote 5% below the SOR price then he have to quote 0.95.
- iii. For Non SOR items bidder can quote for individual item rates in respective financial bid sheet.
- iv. 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.
- v. Bidders are required to upload the updated financial bid in the prescribed excel format in the www.mpeproc.gov.in at the time of final financial bid submission.

SECTION-2

INSTRUCTIONS TO BIDDER

Instruction to Bidder (ITB)

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 Bidders are expected to carry out their own surveys, investigations and other Preliminary examination of the Project and market survey 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 financial bid format attached separately in the Excel format

1. BID to be quote 1 plus % above or below (for Example. If want to quote 5% above then write 1.05 and if want to quote 5% below then write 0.95) for the SOR sheets.
2. BID shall be quoted item wise in the given excel sheet for the NON SOR items.

2.1.5 The Bidder shall deposit a BID Security ₹ 3,65,120 (**Three lakh Sixty five thousand one hundred twenty rupees 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.

Company Name: Bhopal Smart City Development Corporation Ltd.

Branch Name: Allahabad Bank.

Branch Address: Arera Colony, Bhopal

A/C no. : 50327343809

IFSC Code: ALLA0210197

PAN No. : AAGCB6537N

TIN No. : 23889236926

Service Tax No. : AAGCB6537NSD001

GST no: 23AAGCB6537N1ZE

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, 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 a BID 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.

- 2.1.12 The provisions of this Clause 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 tender document.
- 2.1.15 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 in force 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. Latest Financial Year will be (2016-2017)
- 2.1.18 Any entity which has been barred by GOI or Govt. of Madhya Pradesh for the works of expressways, National highways, and the bar subsists as on the Bid Due Date, would not be eligible to submit the BID, bidder need to submit Affidavit regarding the same.
- 2.1.19 The BSCDCL reserves the right to reject an otherwise eligible bidder on the basis of the information provided in tender document. 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) 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:
- (b) 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 the LOA 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. 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 ₹ 3,65,11,596(Three crore Sixty five lakhs Eleven thousand five hundred ninty six rupees) however, is given merely as a rough guide.

The tender document as uploaded can be seen on website 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 payable online through E-tendering portal www.mpeproc.gov.in through NEFT/RTGS. The EMD shall be valid for minimum period of 150 (One Hundred Fifty) days from last day of submission of Tender.

The EMD of all unsuccessful Bidders will be returned within thirty (30) days of the Award of the contract to successful Bidder through online portal.

Financial Bidding can be done through the excel sheet uploaded on www.mpeproc.gov.in, which contains seven (7) sheets:

*BID to be quote 1 plus % above or below (for Example. If want to quote 5% above then write 1.05 and if want to quote 5% below then write 0.95) for SOR items.

*Rates for NON SOR item can be filled in the NON SOR sheet

*Rates can be quoted in the yellow highlighted cell of the financial bid

* Bidder should fill there company/organization name in the space provided (yellow section)

Interested Bidder who wish to participate in the tender has also to make following payments through online payment e-proc portal only.

Cost of Tender Document –15000 To be submit online only/-

e-Tender Processing Fee – As applicable for MPEPROC portal, Cost of Tender Document and, e-Tender Processing Fee online payment shall be payee online 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.

Online technical tender documents submitted by intending Bidders shall be opened only of those Bidders, whose Earnest Money Deposit, Cost of Tender Document and e- Tender Processing Fee and other.

The tender submitted shall become invalid if: the Bidder is found ineligible.

The Bidder does not upload all the documents (including GST 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 Bidder 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 Bidders 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 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 Bidder/ Bidders 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 Bidder shall not be permitted to tender for works if his near relative is posted in the project office or concerned 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 Bidder 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 10th day after issue of the letter of Award by the BSCDCL.

Canvassing whether directly or indirectly, in connection with Bidders 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 Bidders 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 Bidder shall suitably take into consideration such Addenda/Corrigenda while submitting his tender. The Bidder 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 Bidder and shall become part of the tender and contract documents.

SITE VISIT AND COLLECTING LOCAL INFORMATION

Before tendering, the Bidders 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 Bidder may obtain all necessary information as to risks, weather conditions, contingencies & other circumstances (insurgencies etc.) which may influence or affect their tender prices. Bidder 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 visioning 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.

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/UADD 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 under the contract.

BID SECURITY OR EMD

The Bidder shall furnish, as part of the Bid, Bid Security/EMD, in the amount specified in the Bid Data Sheet. This bid security shall be in favor of the authority mentioned in the Bid Data Sheet and shall be valid till the validity of the bid.

Any bid not accompanied by an acceptable Bid Security and not secured as indicated in sub-clause mentioned above, shall be rejected by the Employer as non-responsive.

The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Security Deposits.

The Bid Security may be forfeited:

- a) if the Bidder withdraws the Bid after bid opening (opening of technical qualification part of the bid during the period of Bid validity;
- b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to:
 - i. sign the Agreement; and/or
 - ii. Furnish the required Security Deposits.

No rejections and forfeiture shall be done in case of curable defects,. For non-curable defects the 10% of EMD shall be forfeited and bid will be liable for rejection.

Failure of the bidder to submit the documents mentioned under the curable defects after the return correspondence from the Employer will lead to rejection of Bid.

Note:

**Curable Defect shall mean shortfalls in submission such as:
submission of False documents**

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
- b) Quoting Sheet for Bidder
- c) Instructions to Bidders & General Conditions of Contract (Vol- I/2013)
- d) Technical Specifications (Vol-II)
- e) Bill of Quantities (Vol-III)
- f) Tender Drawing
Acceptance of Tender Conditions (Annexure II)
- g) Corrigendum, if any

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 the form and manner as described in NIT/ITB .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 Clauses of Contract and/or I/we fail to submit performance guarantee as per 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.

Dated: _____

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

SECTION-3

**GENERAL CONDITIONS OF CONTRACT
(GCC)**

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.

- 3.1 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 corporate 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.

“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 Tatpar 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, 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.

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.

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 defect liability period.

In lieu of security deposit /retention money BG can be submitted which shall be released after completion of defect liability 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.
- 3.2 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 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 mutatis mutandis to electrical work except that Electrical Schedule of Rates as mentioned in Memorandum (Annexure-I) will be considered in place of Civil 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.

- 3.3** 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 staining: All works upto 1.2m above the bed level.

For walls, compound walls, , and other elevated structures: All works upto 1.2 metres above the ground level.all items of excavation and filling including treatment of sub base.

Any operation incidental to or necessarily has to be in contemplation of Bidder 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 Bidder 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 given in tender document 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

on works contract / WCT, as per composite scheme in the State of work place, if applicable
GST.

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. Withholding 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.

INCENTIVE FOR EARLY COMPLETION

In case the contractor completes the work ahead of scheduled completion time, a bonus @ 1% (One percent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subjected to a maximum limit of 5% (Five percent) of the tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of the work.

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 per conditions of 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 / 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

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 conditions 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.

i) 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.

- 3.4** 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 tender document shall be enervable 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.

- 3.5** 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

- 3.6** 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

- 3.7** Except as otherwise specifically provided in the contract, the contractor shall be liable and responsible for the payment, including of all taxes, and GST (the state concerned) 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 and GST.

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 and GST as given in tender document. 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 GST Act and necessary evidence to this effect shall be furnished by the Contractor to BSCDCL.

The Bidder shall quote his. In case, the GST 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 all type taxes and GST Works Contract) 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.

GOODS AND SERVICES TAX (GST)

The Bidder shall quote rates **inclusive of all type of tax and GST nothing extra shall be paid.** The contractor must have GST registration number 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 Goods and Service Tax(GST) Rules.

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.

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 W ages 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.

MODE OF PAYMENT:-

Item shall be paid in Number of bollard fixed at site shown by the Engineer in charge. Nothing Extra shall be paid for transportation of Bollards from manufacturing place to any site of work within BSCDCL limit.

RATE

The Contract unit rate shall be payment in full for the cost of making, including all materials, installing it at the site and incidentals to complete the work in accordance with the Specifications.

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 CPW D 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 IS/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 of tender document (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.

Any extra item which is required for completion of project rates shall be derived as per similar item available in UADD/DSR/BOQ or average as the rate quoted above or below by contractor. If both are not available rates will be derived as per market survey.

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 of 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 be 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 tender document 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 (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 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 the supplies 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 Specifications from approved products/makes specification, the specification of ` 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 UADD (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 equipment's 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.
- 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 03 years 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.

The Contractor is expected to carry out the construction work in Workmen like manner so as to meet the requirement and specification for the project. It is expected that the Workmanship and materials will be reasonably fit for the purpose for which they are required.

Defects or defective work is where standard and quality of workmanship and materials as specified in the contract is deficient. Defect is defined as a failure of the completed project to satisfy the express or implied quality or quantity obligations of the construction contract. Defective construction works are as the works which fail short of complying with the express descriptions or requirements of the contract, especially any drawings or specifications with any implied terms and conditions as to its quality, workmanship, durability, aesthetic, performance or design. Defects in construction projects are attributable to various reasons.

Some of the defects are structural defects results in cracks or collapse of faulty defective plumbing, inadequate or faulty drainage system, inadequate or faulty ventilation, cooling or heating systems, inadequate fire systems etc. The defects could be various on accounts of different reasons for variety of the projects.

The Engineering In charge/Project Officer shall issue the practical completion certificate for the project. During the Defect Liability Period which commences on completion of the work, the Engineering In charge shall inform or the contractor is expected to be informed of any defective works by the Employer's representative of the defects and make good at contractor's cost with an intention of giving opportunity to the contractor of making good the defects appeared during that period. It is the contractor's obligation under the contract to rectify the defects that appear during Defect Liability Period and the contractor shall within a reasonable time after receipt of such instructions comply with the same at his own cost. The Engineering In charge/Project Officer shall issue a certificate to that effect and completion of making good defects shall be deemed for all the purpose of this contract to have taken place on the day named in such defect liability certificate.

If defective work or workmanship or design have been knowingly covered-up or concealed so as to constitute fraud, commencement of the Defect Liability Period may be delayed. The decided period may be delayed until **discover** actually occurs on at least the defect could have been discovered with reasonable diligence, whichever is earlier.

Also, in case of defect, the Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at. The Defects Liability Period shall be extended for as long as Defects remain to be corrected. Every time notice of Defect/Defects is given, the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice. The Engineer may issue notice to the Contractor to carry out removal of defects or deficiencies, if any, noticed in his inspection, or brought to his notice. The Contractor shall remove the defects and deficiencies within the period specified in the notice and submit to the Engineer a compliance report.

It is the Completion Stage when the contractor has completed all of the works and fixed all of the defects that were on the list of issue by Engineer-in-charge. When this happens, the engineer must issue a 'Certificate of Completion'. On the issue of 'Certificate of Completion', the 'Defect Liability Period' starts. The contractor also must issue a 'Certificate statement' as an acknowledgment to the engineer not later than 14 days after the 'Certificate of Completion' has been issued. During the 'Defect Liability Period', the contractor has to obey all written instructions from the engineer to carryout repairs and fix any defects which appear in the Permanent Works. If the contractor does not ,due to his own faults finish the repair works or fix the defects by the end of 'Defect Liability Period', the 'Defect Liability Period' will continue until all works instructed by engineer is done.

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.. 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 & 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.

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.

EXTRA ITEMS OF WORK THAT MAY CROP-UP DURING EXECUTION OF WORK

- (i) For any work other than given in the Financial Bid which is found necessary to be executed in the course of work, such items shall be executed by the contractor as per the following, rates for the items shall be derived as below.
 - a) If tender rate is above, rate will be as per current UADD SOR items
 - b) If tender rate is below, rate will be as per current UADD SOR items
 - c) In case the rate of item is not available in UADD SOR, but available in DSR then rate will be as per current DSR item.
 - c) In case the rate for item is not available in the UADD/DSR then the rate analysis shall be done as per market rate and got approved from appropriate authority of BSCDCL, the quantity of such items should not more than 10% of the individual project cost.
- (ii) Escalation on extra item of work is not payable.

WATER PROOF TREATMENT

3.8 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.

3.9 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 days' 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, equipment's 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.

3.10 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 unauthorized 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 as per conditions of tender document hereof and the same action may be taken, and the same consequences shall ensue as provided in the said conditions of contract.

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.

ARBITRATION

1. Arbitration Procedure:

If the efforts, to resolve all or any of the disputes through conciliation fail, then such a dispute shall be referred within 30 days from conclusion of conciliation process to a Sole Arbitrator who would be nominated by Executive Director Bhopal Smart City Development Corporation Limited, Bhopal. The arbitration and conciliation act 1996 as amended from time to time will be applicable. The venue of such arbitration shall be at Bhopal. The award of the sole Arbitrator shall be binding on all parties. The cost of Arbitration shall be borne by the respective parties. There will be no objections if the sole arbitrator nominated or appointed is an employee of BSCDCL.

2. The place of arbitration shall be Bhopal, M.P.

3. English Language

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings. The award shall be made in writing.

4. Enforcement of Award

The Parties agree that the decision or award, which shall be a speaking order, resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with the provision of the Arbitration and Conciliation Act 1996 subject to the rights of the aggrieved parties to secure relief from any higher forum.

5. Performance during Arbitration

The Arbitration Proceedings shall be governed by Indian Arbitration and Conciliation Act 1996, as amended from time to time including provisions in force at the time the reference is made. Pending the submission of and/or decision on a Dispute and until the arbitral award is published; the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award. The courts at Bhopal shall have the sole exclusive jurisdiction to try all the cases arising out of this agreement.

6. Notices

That any notice under the terms of this License shall be in writing by registered post or delivered personally and signed by the party or his/its duly authorized representative giving such notice. All activities including day to day management, billing, termination etc. will be carried out from the office of the CEO, Smart City Development Corporation Limited Bhopal or by his duly authorized representative. Notice shall be addressed as follows:

(Chief Executive Officer)
Bhopal Smart City Development corporation Ltd.

SECTION-4

LABOUR SAFETY, HEALTH
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 (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 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 of 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 equipment's 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.

4.1 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.

4.1.1 No paint containing lead or lead products shall be used except in the form of paste or readymade paint.

4.1.2 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.

4.1.3 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.

4.1.4.1 a) 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.

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

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

4.1.4.2 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.

b) 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.

Notwithstanding 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

PROFORMAS:

PROFORMA- I

The list of similar works as stated in the Minimum Qualification requirement for Bidders for Experience in Similar Works – Clause I

PROFORMA- I					
Sr.No.	Name of the Project	Name of the employer	Stipulated date of completion	Actual date of completion	Actual Cost o work done
1	2	3	4	5	6

NOTE:

Scanned Attested copies of completion/performance certificates from the Engineer-in- Charge for each work should be annexed in the support of information furnished in the above proforma.

Works shall be grouped financial year-wise.

PROFORMA- II

Yearly turnover of Civil Engineering Construction Works during the last three years.

PROFORMA- II					
Sr.No.	Financial year	Annual Turnover of Civil Engineering Works	Updated value to current year	Average of last 3 years	Page No.
1					
2					
3					
Total					

NOTE: The above figures shall tally with the audited balance sheets uploaded by the Bidders duly certified by Chartered Accountant.

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.

Appendix - 'O'

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 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)

P A R T –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.

DATE

SIGNATURE OF CONTRACTOR

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 Tatpar Petrol Pump, Sector A, Berkheda,
Bhopal, Madhya Pradesh 462023

In consideration of Bhopal Smart City Development Corporation Limited, having its Registered Office at, Near Tatpar 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 "BIDDER") 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 Bidder in lieu of Cash Deposit of Rs..... required to be made by the Bidder, 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 Bidder. Any change in the constitution of the Bidder 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 Tatpar Petrol Pump, Sector A, Berkheda,
Bhopal, Madhya Pradesh 462023

Whereas the Bhopal Smart City Development Corporation Limited, having its Registered Office at BSCDCL Near Tatpar 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 BSCDCL irrevocably undertake to pay to 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 BSCDCL 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 Tatpar Petrol Pump, Sector A, Berkhedha, Bhopal,
Madhya Pradesh 462023

1.0 In consideration of the Bhopal Smart City Development Corporation Limited, having its Registered Office at BSCDCL, Near Tatpar Petrol Pump, Sector A, Berkhedha, 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 thisday of.....

Dated

For and on behalf of Bank

(NAME AND DESIGNATION)

**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 Tatpar Petrol Pump, Sector A, Berkheda, Bhopal

In consideration of the Bhopal Smart City Development Corporation Ltd., having its Registered Office at Near Tatpar 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 (Rupeesonly). 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 Bhopal Smart City Development Corporation Limited, 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 Obligor,,,,,.....and by And for and on behalf of the BSCDCL on the day, month and year first above written.

Signed, sealed and delivered by Obligor 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 _____ having its Registered Office at, 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 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 like quality 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 debiting 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.

Except 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).

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

Letter of Acceptance of Tender Conditions dated _____

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.

FORM 7 - FORM OF POWER OF ATTORNEY FOR SIGNING THE BID DOCUMENTS

(On a Stamp Paper of relevant value)

Know all men by these presents, we, (name of Contractor and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr / Ms..... son/daughter/wife of and presently residing at, who is presently employed with us and holding the position of as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of bid for the

_____ of Tendered works for Period of Two Years under _____" being developed by the BSCDCL including but not limited to signing and submission of all applications, proposals/bids and other documents and writings, participating in pre-bid and other conferences and providing information/ responses to BSCDCL, representing us in all matters before BSCDCL, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with BSCDCL in all matters in connection with or relating to or arising out of our Proposal for the said work and/or upon award thereof to us till the entering into of the agreement with BSCDCL.

AND GENERALLY to act as our Attorney or agent on behalf of us in relation to the bid for _____ (and to execute and do all instruments, acts, deeds, matters and things in relation to the said Proposal or any incidental or ancillary activity, as fully and effectually in all respects as we could do if personally present.

AND We hereby agree to ratify and confirm and agree to ratify and confirm all acts, deeds and things whatsoever lawfully done or caused to be done by our said Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 2017

For

.....

(Signature, name, designation and address)

Witness

1.

2.

Notarized

Accepted

(Signature, name, designation and address of the Attorney)

AFFIDAVIT *(Black listing)

1. I, the undersigned, do hereby certify that all the statements made in the Tender document are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s. _____ nor any of its constituent partners are blacklisted by any of the Govt./Semi Govt. institutions and not have abandoned any work of buildings / Infrastructures works in India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this application.

Signed by an Authorized Officer of the Firm

Title of Officer

Name of Firm

Date

SECTION-6

SPECIAL CONDITION OF CONTRACT (SCC)

SPECIAL CONDITIONS OF CONTRACT (SCC)

- 6.1 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.
- 6.2 Where any portion of Special Conditions of Contract is repugnant to or at variance with any provision of the instructions to Bidder 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 Bidder or General Conditions of contract and / or the other documents from part of the contract.
- 6.3 Items mentioned in the BOQ may vary or any changes are needed then it should bring to the attention of BSCDCL.
- 6.4 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.
- 6.5 The contractor has to submit sample of the items defined in BOQ the same to be Approved by BSCDCL, before use. BSCDCL will depute special team to expedite document approval process, and same will be approved at reasonable time, if submitted with maintaining quality as per Scope and specification
- 6.6 Contractors shall construct/ refurbish Store, Cement Godown, Lab, Office for their use or shall make for BSCDCL. The space shall be provided by BSCDCL. It is assumed that the parties submitting their offers are well aware about the site conditions, nature of work to be carried out etc. Non familiarity with site conditions shall not attract or construed any increase in the rates after acceptance of the offer.
- 6.7 Amount shall be released after completion of work in all respect and as per actual quantum of work executed. Necessary statutory deduction as applicable shall be effected from the payment. No advance payment whatsoever shall be made.
- 6.8 The necessary statutory deduction as applicable shall be deducted from the amount payable to the party and it is mandatory on the part of party to provide PAN number, Goods & Service tax registration number etc. whenever asked for.
- 6.9 The party has to accept and are fully responsible for all the liabilities arising out with regard to any compensations /remunerations under any Statutory bodies of whatsoever nature of any major or minor or fatal accident or incident occurred /sustained by their personnel posted at BSCDCL site, during the course of discharge of their duties
- 6.10 The party shall not involve themselves in any manner which is detrimental to the BSCDCL interest or associated themselves in any capacity with BSCDCL employees. The personnel deployed by the party shall be disciplined by observing all rules and regulations of BSCDCL. In case of noncompliance, BSCDCL reserves the right to terminate the contract without any notice and recovery of the damages shall be effected from the amount payable to the party.

Signature of the Contractor

SECTION-7

SCOPE OF WORK,

AND

TECHNICAL

SPECIFICATIONS

SCOPE OF WORK

General

Contractor shall be responsible for making the facility fit for the intended purpose while performing all of its obligations covered under the Contract Document in its entirety. The work shall be done in accordance to the drawings approved by the statutory authorities.

Currently tender drawings and Design Criteria, Brief Technical Specifications for certain items of work are available. Scope includes further detailing, developing required specifications, preparing Good for Construction (GFC), coordinated drawings .The scope shall also include preparation of as built drawings before handing over the work to the Employer, maintaining the Quality assurance & Quality control (QA&QC), corrective actions, reporting and arranging for regular inspections by all concerned.

Procurement, supply, construction, installation, furnishing, equipping, testing and commissioning shall be carried out for the following works:

- 1 Masonry
- 2 Plastering
- 3 Painting
- 4 Glazing & Facade works
- 5 Stone cladding
- 6 Flooring And finishing
- 7 Furniture
- 8 Fabrication works
- 9 Dry Partition/Glass partition
- 10 False ceiling
- 11 Panelling
- 12 Specialised flooring if any other than that specified in schedule of Finishes
- 13 Painting other than that specified in schedule of Finishes
- 14 Glass doors/interior doors specified in schedule of doors
- 15 Gates including automation

The work to be carried out under this contract shall consist of various items as generally described in Tender Documents. The brief scope of work comprises of the following

- (i) Carrying out supply and erection of various interior fit out for the office area etc. including custom made and modular furniture, internal partitions and finishes.
- (ii) Fire rated walls, fire rated doors etc.,
- (iii) Raised access flooring with edge supported rigid grid system (lay-in tiles) for IT infrastructure.
- (iv) Soft furnishings like blinds, carpets, sofa, etc.
- (v) Floor finishing with marble/granite/vitrified tiles/ Kota stones/Artificial Marble/Granite etc.
- (vi) Miscellaneous civil jobs.
- (vii) False ceiling work including metal & specialised ceiling.

TECHNICAL SPECIFICATIONS:

FLOORING

Notes:

Applicable IS Code

IS 1124 Method of test for determination of water absorption, apparent specific gravity and porosity of natural building stones

IS 1130 Specification for marble (blocks, slabs and tiles)

IS1200-(Part XI) Method of measurement of Building and Civil Engineering work (Part 11) paving, floor finishes, dado and skirting

IS 1237-Edition 2.3 Specification for cement concrete flooring tiles

IS 2114 Code of practice for laying in-situ terrazzo floor finish

IS 13630 (Part-1 to 15) Methods of Testing of ceramic tiles

IS 15622 Specification for pressed ceramic tile

- 1 Marble chips / terrazzo floors, skirting and dados shall conform to IS : 2114-1962.
- 2 Marble powder used in mosaic/terrazzo topping shall pass through IS : sieve No.30.
- 3 Pigments used in terrazzo/marble chips shall be of permanent colour.
- 4 For the situ marble chips/terrazzo flooring the first grinding shall be done with carborandom stones of 60 grit size, the second grinding with 80 grit size and the third grinding with 120 to 150 grit size and the fourth grinding with 320 to 400 grit size.
- 5 For the slab or tiles flooring, the joints in the tiles or slab shall be of 1.50mm thickness. The joints shall be filled with the cement grout of the same shade as the colour of slab or tile. The terrazzo tiles shall conform to IS : 1237-1959.
- 6 The slab or tiled flooring shall be grinded with carborandom stone. The first grinding shall be with carborandom stones of 48 to 60 grit size and the second grinding with 120 grit and final grinding with 220 to 350 grit. In case of plain/coloured terrazzo tiles, initial grinding with carborandom stones of 48 to 60 grit is not necessary.
- 7 In case of composite flooring with two or more types of stones and where single type of stone used is 90% or more in area, the entire area is to be paid at the rate of flooring with that type of stone and in case, where the area of single type of stone is less than 90%, the flooring done shall be measured separately and paid at the rate of flooring for each type of stone separately.
- 8 **MARBLE STONE:** Marble shall be hard, sound, dense and homogeneous in texture with crystalline texture. It shall be uniform in colour and free from stains, cracks, decays and weathering.

(i)	Makarana second quality	White marble having lighter shades/spots.
(ii)	Raj nagar plain	White marble with blue or grey shades.
(iii)	Agaria White katani	White marble with irregular blue and black spots.

PHYSICAL PROPERTIES OF MARBLE BLOCKS, SLABS AND TILES

S.No	Characteristics	Requirements	Method of Test
1	Moisture absorption after 24hours immersion in cold water.	Max. 0.40% by weight	IS : 1124-1974
2	Hardness	Min. - 3	Mhos scale
3	Specific gravity	Min. - 2.50	IS : 1122-1974.

9.1CEMENT CONCRETE FLOORING

Base Concrete

Flooring shall be laid on base concrete where so provided. The base concrete shall be provided with the slopes required for the flooring. Flooring in verandah, Courtyard, kitchens & baths shall have slope ranging from 1 : 48 to 1 : 60 depending upon location and as decided by the Engineer- in-Charge. Floors in water closet portion shall have slope of 1:30 or as decided by the Engineer-in- Charge to drain off washing water. Further, necessary drop in flooring in bath, WC, kitchen near floor traps ranging from 6 mm to 10 mm will also be provided to avoid spread of water. Necessary margin to accommodate this drop shall be made in base concrete. Plinth masonry off set shall be depressed so as to allow the base concrete to rest on it.

The flooring shall be commenced preferably within 48 hours of the laying of base concrete. The surface of the base shall be roughened with steel wire brushes without disturbing the concrete. Immediately before laying the flooring, the

base shall be wetted and a coat of cement slurry @ 2 kg of cement spread over an area of one sqm so as to get a good bond between the base and concrete floor.

If the cement concrete flooring is to be laid directly on the RCC slab, the top surface of RCC slab shall be cleaned and the laitance shall be removed and a coat of cement slurry @ 2 kg of cement spread over an area of one sqm so as to get a good bond between the base and concrete floor.

Thickness

The thickness of floor shall be as specified in the description of the item.

Laying

Panels : Flooring of specified thickness shall be laid in the pattern including the border as given in the drawings or as directed by the Engineer-in-Charge. The border panels shall not exceed 450 mm in width and the joints in the border shall be in line with panel joints. The panels shall be of uniform size and no dimension of a panel shall exceed 2 m and the area of a panel shall not be more than 2 sqm. The joints of borders at corners shall be mitred for provision of strips.

Curing

Curing shall be commenced on the next day of plastering when the plaster has hardened sufficiently and shall be continued for a minimum period of 7 days.

Measurement

Length and breadth shall be measured before laying skirting, dado or wall plaster. No deduction shall be made nor extra paid for voids not exceeding 0.20 sqm. Deductions for ends of dissimilar materials or other articles embedded shall not be made for areas not exceeding 0.10 sqm.

The flooring done either with strips (in one operation) or without strips (in alternate panels) shall be treated as same and measured together

Rates

The rate shall include the cost of all materials and labour involved in all the operations described above including application of cement slurry on RCC slab or on base concrete including roughening and cleaning the surface but excluding the cost of strips which shall be paid separately under relevant item.

(ii) TERRAZO TILES FLOORING

Terrazo tiles shall generally conform to IS 1237-Edition 2.3. Unless otherwise specified, the tiles shall be supplied with initial grinding and grouting of wearing layer

The size of tiles shall be as given in Table Below or as shown in the drawings or as required by the Engineer-in-Charge. Half tiles for use with the full tiles shall be such as to make two half tiles when joined together, match with the dimensions of one full tile.

Laying of Terrazo tile :-

Base concrete or RCC slab on which the tiles are to be laid shall be cleaned, wetted and mopped. The bedding for the tiles shall be with cement mortar of specified proportion and in conformity with provisions in relevant para of chapter on 'Mortar'.

Cement mortar 1:4 (1 Cement : 4 coarse sand) bedding shall be used. Average thickness of the bedding mortar shall be 20 mm and the thickness at any place shall not be less than 10 mm.

Cement mortar bedding shall be spread, tamped and corrected to proper levels and allowed to harden for a day before the tiles are set. If cement mortar is laid in bedding the terrazo tiles, these shall be set immediately after laying the mortar. Over this bedding neat grey cement slurry of honey like consistency shall be spread at the rate of 4.4 kg of cement per square meter over such an area as would accommodate about twenty tiles. Tiles shall be washed clean and shall be fixed in this grout one after another, each tile being gently tapped with a wooden mallet till it is properly bedded, and in level with the adjoining tiles. The joints shall be kept as thin as possible not exceeding 1 mm and in straight lines or to suit the required pattern. The joints shall be properly cleaned before filling with cement grout of matching colour.

Curing, Polishing and Finishing

The floor shall then be kept wet for a minimum period of 7 days. The surface shall thereafter be grounded evenly with machine fitted with coarse grade grit block (No. 60). Water shall be used profusely during grinding. After grinding the surface shall be thoroughly washed to remove all grinding mud, cleaned and mopped. It shall then be covered with a thin coat of grey or white cement, mixed with or without pigment to match the colour of the topping of the wearing surface in order to fill any pin hole that appear. The surface shall be again cured. The second grinding shall then be carried out with machine fitted with fine grade grit block (No. 120).

Measurements

Terrazo tiles flooring with tiles manufactured from ordinary grey cement without pigment and coloured terrazo tile flooring shall be measured in length and breadth correct to a cm before laying separately. Terrazo tile flooring shall be measured as laid in square meter correct to two plains of decimal. For length and breadth dimensions correct to a cm before laying skirting, dado or wall plaster shall be taken. No deduction shall be made nor extra paid for voids not exceeding 0.20 sqm. Deductions for ends of dissimilar materials or other articles embedded shall not be made for areas not exceeding 0.10 square meter. Nothing extra shall be paid for use of cut tiles nor for laying the floor at different levels in the same room or courtyard.

Terrazo tile flooring laid in floor borders and similar band shall be measured under the item of terrazo tile flooring. Nothing extra shall be paid in respect of these and similar bands formed of half size or multiples of half size standard tiles or other uncut tiles.

Treads of stairs and steps paved with tiles without nosing, shall also be measured under flooring- Moulded nosing shall be paid in running meter except where otherwise stated, returned moulded ends and angles to mouldings shall be included in the description. Extra shall, however, be paid for such areas where the width of treads does not exceed 30 cm.

Rate:-

The rate shall include the cost of all materials and labour involved in all the operations described above. Where cement mortar bedding is used in place of lime mortar the rate will be adjusted accordingly.

CHEQUERED TILE FLOORING

The tiles shall be of nominal sizes such as 20 x 20 cm, 25 x 25 cm and 30 x 30 cm or of standard sizes with equal sides. The size of tiles to be used shall be as shown in approved drawings or as required by the Engineer-in-Charge. The centre to centre distance of chequers shall not be less than 2.5 cm and not more than 5 cm.

The overall thickness of the tiles shall not be less than 30 mm. The grooves in the chequers shall be uniform and straight. The depth of the grooves shall not be less than 3 mm. The chequered tiles shall be cement tiles, or terrazo tiles as specified in the description of the item. The thickness of the upper layer, measured from the top of the chequers shall not be less than 6 mm.

The terrazo tiles shall be given the first grinding with machine before delivery to site.

Laying, curing, Polishing and Finishing shall be same as TERRAZO TILES FLOORING except that the polishing of the tiles and the chequer grooves, after laying, may be done by hand. Special care shall be taken to polish the grooves in such a manner as to get a uniform section and that their finish shall match with the finish of flat portion of the tiles. Cement concrete tiles normally do not require polishing but where polishing is required the same shall be done as described above.

Measurements

Chequered tiles on stair treads shall be measured in square meter correct to two places of decimal. Length shall be measured correct to a cm before laying skirting, dado or wall plaster. Width shall be measured correct to a cm from the outer edge of the nosing, as (aid, before providing the riser. In the case of the edge tiles of the landing and wide steps, width shall be measured upto the near edge of the chequered stair tread tiles. Deductions for ends of dissimilar materials or other articles embedded shall not be made for areas not exceeding 0.10 square meter.

Rates: -

The rate shall include the cost of all materials and labour involved in all the operations described above.

Nothing extra shall be payable for cutting the tiles to suit the size of treads and also for nosing.

PRESSED CERAMIC TILE FLOORING

The tiles shall be of approved make and shall generally conform to IS 15622. They shall be flat, and true to shape and free from blisters crazing, chips, welts, crawling or other imperfections detracting from their appearance. The tiles shall be tested as per IS 13630.

Classification and Characteristics of pressed ceramic tiles shall be as per IS 13712.

The tiles shall be square or rectangular of nominal size. Table 1,3,5, and 7 of IS 15622 give the modular preferred sizes and table 2,4,6 and 8 give the most common non modular sizes. Thickness shall be specified by the manufacturer. It includes the profiles on the visible face and on the rear side. Allowable nominal joint width upto 2mm for unrectified floor tiles and upto 1mm for rectified floor tiles. The joint in case of spacer lug tile shall be as per spacer. The tiles shall conform to table 10 of IS 15622 with water absorption 3 to 6%.

The top surface of the tiles shall be glazed. Glaze shall be either glossy or matt as specified. The underside of the tiles shall not have glaze on more than 5% of the area in order that the tile may adhere properly to the base. The edges of the tiles shall be preferably free from glaze. However, any glaze if unavoidable, shall be permissible on only upto 50 % of the surface area of the edges.

Coloured Tiles

Only the glaze shall be coloured as specified. The sizes and specifications shall be the same as for the white glazed tiles.

Decorative Tiles

The type and size of the decorative tiles shall be as follows: - (i) Decorated white back ground tiles

The size of these tiles shall be as per IS 15622.

(ii) Decorated and having coloured back-ground

The sizes of the tiles shall be as per IS 15622.

Preparation of Surface and Laying

Base concrete or the RCC slab on which the tiles are to be laid shall be cleaned, wetted and mopped. The bedding for the tile shall be with cement mortar 1:4 (1 cement : 4 coarse sand) or as specified. The average thickness of the bedding shall be 20 mm or as specified while the thickness under any portion of the tiles shall not be less than 10 mm.

Mortar shall be spread, tamped and corrected to proper levels and allowed to harden sufficiently to offer a fairly rigid cushion for the tiles to be set and to enable the mason to place wooden plank across and squat on it.

Over this mortar bedding neat grey cement slurry of honey like consistency shall be spread at

the rate of 3.3 kg of cement per square meter over an area upto one square meter. Tiles shall be soaked in water washed clean and shall be fixed in this grout one after another, each tile gently being tapped with a wooden mallet till it is properly bedded and in level with the adjoining tiles. The joints shall be kept as thin as possible and in straight lines or to suit the required pattern.

The surface of the flooring during laying shall be frequently checked with a straight edge about 2 m long, so as to obtain a true surface with the required slope. In bath, toilet W.C. kitchen and balcony/verandah flooring, suitable tile drop or as shown in drawing will be given in addition to required slope to avoid spread of water. Further tile drop will also be provided near floor trap.

Where full size tiles cannot be fixed these shall be cut (sawn) to the required size, and their edge rubbed smooth to ensure straight and true joints.

Tiles which are fixed in the floor adjoining the wall shall enter not less than 10 mm under the plaster, skirting or dado.

After tiles have been laid surplus cement slurry shall be cleaned off.

Pointing and Finishing

The joints shall be cleaned off the grey cement slurry with wire/coir brush or trowel to a depth of 2 mm to 3 mm and all dust and loose mortar removed. Joints shall then be flush pointed with white cement added with pigment if required to match the colour of tiles. Where spacer lug tiles are provided, the half the depth of Joint shall be filled with polysulphide or as specified on top with under filling with cement grout without the lugs remaining exposed. The floor shall then be kept wet for 7 days. After curing, the surface shall be washed and finished clean. The finished floor shall not sound hollow when tapped with a wooden mallet.

Measurements

Length and breadth shall be measured correct to a cm before laying skirting, dado or wall plaster and the area calculated in square meter correct to two places of decimal. Where coves are used at the junctions, the length and breadth shall be measured between the lower edges of the coves.

No deduction shall be made nor extra paid for voids not exceeding 0.20 square meter. Deductions for ends of dissimilar materials or other articles embedded shall not be made for areas not exceeding 0.10 square meter.

Areas, where glazed tiles or different types of decorative tiles are used will be measured separately.

Rates

The rate for flooring shall include the cost of all materials and labour involved in all the operations described above, For tiles of sizes upto 0.16 sqm, unless otherwise specified in the description of the item. Nothing extra shall be paid for the use of cut (sawn) tiles in the work.

Extra over and above the normal rate for white tiles shall be paid where coloured or any other type of decorative tiles have been used.

MARBLE STONE FLOORING Marble Stone

It shall be as specified in para number 8.

Dressing of Slabs

Every stone shall be cut to the required size and shape, fine chisel dressed on all sides to the full depth so that a straight edge laid along the side of the stone shall be fully in contact with it. The top surface shall also be fine chisel dressed to remove all waviness. In case machine cut slabs are used, fine chisel dressing of machine cut surface need not be done provided a straight edge laid any where along the machine cut surfaces is in contact with every point on it. The sides and top surface of slabs shall be machine rubbed or table rubbed with coarse sand before paving. All angles and edges of the marble slabs shall be true, square and free from chippings and the surface shall be true and plane.

The thickness of the slabs shall be 18, 30 or 40 mm as specified in the description of the item. Tolerance of + 3% shall be allowed for the thickness. In respect of length and breadth of slabs a tolerance of $\pm 2\%$ shall be allowed.

Laying of Marble stone

Base concrete or the RCC slab on which the slabs are to be laid shall be cleaned, wetted and, mopped. The bedding for the slabs shall be with cement mortar 1:4 (1 cement : 4 coarse sand) or as given in the description of the item.

The average thickness of the bedding mortar under the slab shall be 20 mm and the thickness at any place under the slab shall be not less than 12 mm.

The slabs shall be laid in the following manner:

Mortar of the specified mix shall be spread under the area of each slab, roughly to the average thickness specified in the item. The slab shall be washed clean before laying, it shall be laid on top, pressed, tapped with wooden mallet and brought to level with the adjoining slabs. It shall be lifted and laid aside. The top surface of the mortar shall then be corrected by adding fresh mortar at hollows. The mortar is allowed to harden a bit and cement slurry of honey like consistency shall be spread over the same at the rate of 4.4 kg of cement per sqm. The edges of the slab already paved shall be buttered with grey or white cement with or without admixture of pigment to match the shade of the marble slabs as given in the description of the item.

The slab to be paved shall then be lowered gently back in position and tapped with wooden mallet till it is properly bedded in level with and close to the adjoining slabs with as fine a joint as possible. Subsequent slabs shall be laid in the same manner. After each slab has been laid, surplus cement on the surface of the slabs shall be cleaned off- The flooring shall be cured for a minimum period of seven days. The surface of the flooring as laid shall be true to levels, and, slopes as instructed by the Engineer-in-Charge. Joint thickness shall not be more than 1 mm.

Due care shall be taken to match the grains of slabs which shall be selected Judiciously having uniform pattern of Veins/streaks or as directed by the Engineer-in-Charge. The slabs shall be matched as shown in drawings or 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 and floor shall be finished neatly and without waviness.

RED OR WHITE FINE DRESSED SAND STONE FLOORING

Red/White/Coloured Sand stone : The slabs of white, red and stones of other colours found at Shivpuri, Mandana, Jaisalmer, Dholpur, Basoda, Raisen and at other places to be used in flooring work shall be hard, durable and tough, free from cracks, decays and weathering. In case of red sand stones and other coloured sand stones, white patches or streaks and in case of white sand stones, coloured patches or streaks shall not be allowed. However, scattered spots upto 10mm diameter shall be permitted.

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 ± 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.

RED OR WHITE FINE DRESSED AND RUBBED SAND STONE FLOORING

Stone Slabs shall be as specified in 14.1.

Dressing

The specifications for dressing the top surface and the sides shall be as described in para 14.2. In addition the dressed top and sides shall be table rubbed with coarse grade carborundum stone before paving, to obtain a perfectly true and smooth surface free from chisel marks.

The thickness of the slabs after dressing shall be as specified with a permissible tolerance of ± 2 mm.

Laying

The slabs shall be laid with 3 mm thick or 5 mm thick joints as specified in the description of the item.

Where the joints are to be limited to 3 mm thickness, the slabs shall be laid as method specified in Marble flooring except that the bedding mortar shall be as specified in para 10.3 and sides of the slabs to be jointed shall be buttered with cement mortar 1:2 (1 cement ; 2 stone dust) admixed with pigment to match the shade of the slab.

Where the slabs are to be laid with 5 mm thick joints, the specifications for laying shall be as described in para 14.3.

Kota stone flooring

Kota stone slabs/tiles shall be of selected quality, hard, sound, dense and homogeneous in texture, free from cracks, decay, weathering and flaws. They shall be hand or machine cut in requisite thickness. They shall be of the colour indicated in the approved drawings or as instructed by the Engineer-in-Charge.

The slabs shall have the top (exposed) face polished before being brought to site, unless otherwise specified. The slabs shall conform to the size required. Before starting the work the contractor shall get the samples of slabs approved by the Engineer-in-Charge.

Dressing

Every slab shall be cut to the required size and shape and fine chisel dressed on the sides to the full depth so that a straight edge laid along the side of the stone shall be in full contact with it. The sides (edges) shall be table rubbed with coarse sand or machine rubbed before paving. All angles and edges of the slabs shall be true, square and free from chippings and the surface shall be true and plane.

The thickness of the slab after it is dressed shall be 20, 25, 30 or 40 mm as specified in the description of the item. Tolerance of ± 2 mm shall be allowed for the thickness. In respect of length and breadth of slabs Tolerance of ± 5 mm for hand cut slabs and ± 2 mm for machine cut slabs shall be allowed.

Preparation of Surface and Laying

The specification shall be same as marble laying except that the edges of the slabs to be jointed shall be buttered with grey cement, with admixture of pigment to match the shade of the slab. The thickness of the joints should be minimum as possible. In any location, it shall not exceed 1 mm.

Polishing and Finishing

The specifications shall be same as marble polishing and finishing except that

- (a) first polishing with coarse grade carborundum stone shall not be done,
- (b) cement slurry with or without pigment shall not be applied on the surface before polishing.

Measurement & Rates: - Same as specified in marble flooring. Tiles shall be used of premier class. Engineer in charge shall inspect the cement concrete interlocking paver block in factory and approved the interlocking paver block before supply.

(For Detail Refer UADD Flooring specification / CPWD specification)

FINISHING WORK

Notes:1

Plastering shall be done where shown on the drawing. Plastering shall be started from top and worked down. All putlog holes shall be properly filled in advance of the plastering while the scaffolding is being taken down. Wooden screeds 75mm wide and of the thickness of the plaster shall be fixed vertically 2.5 to 4 meters apart, to act as gauges and guides in applying the plaster. The mortar shall be laid on the wall between the screeds using the plasterer's float and pressing the mortar so that the raked joints are properly filled. The plaster shall then be finished off with a wooden straight edge reaching across the screeds. The straight edge shall be worked on the screeds with a small up ward and side ways motion 50mm to 75mm at a time. Finally, the surface shall be finished off with a plasterer's wooden float. Metal floats shall not be used.

Extra payment shall be made beyond 10 meter height for plaster and pointing .

- 2 Pointing shall be carried out using mortar not leaner than 1:3 by volume of cement and sand or as shown on the drawing. The mortar shall be filled and pressed into the raked joints before giving the required finish.
- 3 Curing shall be commenced as soon as the mortar used for finishing has hardened sufficiently not to be damaged during curing. It shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages.
- 4 For a white washing, class C lime i.e. fat lime shall be used.
- 5 For colour wash the colouring material shall be of approved make and as approved By Engineer-in-Charge.
- 6 Dry distemper shall conform to I.S. 427-1965.
- 7 Oil bound distemper shall conform to I.S. 428-1969.
- 8 Cement paint shall conform to I.S. 5410-1969.
- 9 Primer on wooden surfaces is to be followed by putty of two parts of white chalk powder, one part of enamel paint and added by turpentine oil proportionately to prepare a smooth surface by sand pappering.
- 10 Primer on metal steel surfaces shall be done with red oxide zinc chromite.
- 11 Synthetic enamel paint shall conform to I.S. 2932, IS 2933 and IS 133
- 12 Ready mixed paints shall conform to I.S. 3631
- 13 Clear synthetic varnish shall conform to IS 525
- 14 Copal varnish shall conform to I.S. 337
- 15 Waxing - A mixture of bee's wax and turpentine oil in proportion of 2 Bee's wax : 1½ double boiled linseed oil : 1 turpentine : ½ varnish shall be used. The wax is melted and added to turpentine.
- 16 The other paints etc. should conform to the follow ing specifications:

(a) Aluminium paint	-	IS 2339
(b) Black japan	-	IS 341
(c) Anti corrosive Bituminious	-	IS158
(d) Plastic emulsion paint	-	IS 5411
(e) French polish	-	IS 348
(f) Red oxide	-	IS 2074
(g) Turpentine	-	IS 533
(h) Double boiled linseed oil	-	IS 77
- 17 Painting of frames and shutters of doors, windows, ventilators, steel work, and corrugated sheets etc. will be measured by multiplying the length or width by the height of one face only and the area thus obtained being further multiplied by factors as per I.S. 1200 of mode of measurements for building works with further amendments if any.
- 18 In case of sponge/sand faced (Non plain or equivalent) plastered surface of wall, the area measured, is to be multiplied by the factor 1.50 for payments of white wash, colour wash and distemping for one or more coats of required finish.
- 19 The rates in this chapter are for all locations like walls, ceiling, sloping roofs and in all floors and heights and depths, and for all shades with cost of all materials, labour, scaffoldings, T & P, hire & running charges of machinerries, ladders, cans, brushes and other appliances etc. required for the efficient execution of work.

- 20 Lime wash
This shall be applied in a thick coat after curing the plaster for three days.
- 21 Oil bound distemper is not recommended to be applied, within six months of the completion of wall plaster. However, newly plastered surfaces if required to be distempered before a period of six months shall be given a coat of alkali resistant priming Paint conforming to IS 109 and allowed to dry for atleast 48 hours before distempering is commenced.

Measurement

(1) Plaster :- Length and breadth shall be measured correct to a cm and its area shall be calculated in square meters correct to two places of decimal.

(2) Pointing :- Length and breadth shall be measured correct to a cm and its area shall be calculated in square meters upto two places of decimal.

The various types of pointing for example, struck, keyed, flush, tuck, etc. shall each be measured separately.

Pointing on different types of walls, floors, roofs etc. shall each be measured separately. The type and material of the surface to be pointed shall be described.

(3) Painting/Washing/Distempering :- The length and breadth shall be measured correct to a cm. The area shall be calculated in sqm.

(For Detail Specification Refer Chapter of Finishing specification UADD/CPWD)

ROOFING AND CEILING

IS 277 Galvanised steel sheets (plain and corrugated)

IS1200(PT.IX) Method of measurements of building and civil engineering works: Part - 9 Roof covering (including cladding)

IS2095(PT-1) Gypsum plaster boards (Pt.1) plain Gypsum plaster boards

IS 2645 Specification for integral water proofing compounds for cement mortar and concrete

Type of Roofing

- (i) Corrugated Galvanised Steel Roofing
- (ii) Non Asbestos High Impact Poly Propylene Reinforced Cement Semi Corrugated Sheets Roofing
- (iii) Red or White Sand Stone Roofing

1 CGS (Corrugated Galvanised Steel) Sheet Roofing

The G.S. sheet to be used in work shall conform to IS : 277-2003.

- 2 The C.G.S. sheets shall be free from cracks, split edges, twists, surface flaws etc. They shall be clean, bright and smooth. The galvanising shall be non-injured and in perfect condition. The sheets shall not show signs of rust or white powdery deposits on the surface. The corrugations shall be uniform in depth and pitch and parallel with the side.

3 Purlins

Purlins of the specified material or M.S. rolled sections of requisite size shall be fixed over the principal rafters. These shall not be spaced at more than the following distances.

<i>Thickness of C.G.S. sheet</i>	<i>Maximum spacing of purlins</i>
1.00 mm	2.00 metre
0.80 mm	1.80 metre
0.63 mm	1.60 metre

- 4 Roof shall not be pitched at a flatter slope than 1 vertical to 5 horizontal. The normal pitch adopted shall usually be 1 vertical to 3 horizontal.

5 Laying and fixing

- (i) The sheets shall be laid with a minimum lap of 15 cm at the ends and 2 ridges of corrugations at each side. The above minimum end lap of 15 cm shall apply to slopes of 1 vertical to 2 horizontal and steeper slopes. For flatter slopes the minimum permissible end lap shall be 20 cm. The minimum lap of sheets with ridge, hip and valley shall be 20 cm measured at right angles to the line of the ridge, hip and valley respectively. These sheets shall be cut to suit the dimensions or shapes of the roof, either along their length or their width or in a slant across their lines of corrugations at hips and valleys. They shall be cut carefully with a straight edge chisel to give a smooth and straight finish.
- (ii) Lapping in C.G.S. sheets shall be painted with a coat of approved steel primer and two coats of painting with approved paint suitable for G.S. sheet, before the sheets are fixed in place.

- (iii) Sheets shall not generally be fixed into gables and parapets. They shall be bent up along their side edges close to the wall and the junction shall be protected by suitable flashing or by a projecting drip course, the later to cover the Junction by at least 7.5cm.
- (iv) The laying operation shall include all scaffolding work involved.
- (v) Sheets shall be fixed to the purlins or other roof members such as hip or valley rafters etc. with galvanised J or L hook bolts and nuts, 8 mm diameter, with bitumen and G.I. limpet washers or with a limpet washer filled with white lead as directed by the Engineer- in-Charge. White J hooks are used for fixing sheets on angle iron purlins, and L hooks are used for fixing the sheet to R.S. joists, timber or precast concrete purlins. The length of the hook bolt shall be varied to suit the particular requirements.
The bolts shall be sufficiently long so that after fixing they project above the top of the nuts by not less than 10 mm. The grip of J or L hook bolt on the side of the purlin shall not be less than 25 mm. There shall be a minimum of three hook bolts placed at the ridges of corrugations in each sheet on every purlin and their spacing shall not exceed 30 cm. Coach screws shall not be used for fixing sheets to purlins.

6 GALVANISED STEEL SHEETS

6.1 Dimensions

Sizes of plain Sheet: The plain sheets shall be supplied in any combination of the following lengths, widths and thickness.

- (a) Length : 2500 and 3000 mm
- (b) Width: 900 and 1000mm
- (c) Thickness : 0.50, 0.63, 0.80, 1.00 mm

In case of sheets supplied in coil, the internal diameter of coil shall be 450, 510 and 610 mm and the mass of each coil shall not exceed 12 tonne.

Coils weighing more than 12 tonnes may be supplied subject to mutual agreement between the contracting parties.

6.2 Corrugated sheets.

Length- The length of the corrugated sheets shall be as follows: 2500, 3000 mm.

6.3 Zinc Coating

The weight of coating referred to in this specification shall represent the total weight of zinc both side inclusive. On any sample selected at random from the delivery, one set of three samples each 50 x 50mm or 50mm diameter shall be selected at random from one sheet for every 500 G.S. sheets, the coating for the different classes shall be within the limit specified in table below;

**TABLE A
Mass of Coating (Total Both Sides)**

<i>Grade of coating</i>	<i>Minimum average coating Triple spot test g/sqm</i>	<i>Minimum coating single spot test g/sqm*</i>
600	600	510
450	450	380
350	350	300
275	275	235

* minimum individual value obtained in triple spot test.

6.4 Mass

The mass of sheets and coils shall be calculated as given in Table B on the basis of nominal dimensions and mass of zinc coating.

**Table B
Calculation of mass of sheets or coils**

Type of materials	Order of calculation	Method of calculation	Number of Numerals in resultant value
Sheet	Mass of single sheet	Nominal mass of single sheet plus mass of zinc coating	Rounded off to 4 effective figures
	Total mass	Mass of single sheet (kg) x number of sheets	Rounded off to integral value of kg
Coil	Unit mass of coil	Unit mass of sheet (kg/m ²)x width (mm) X10-3	Rounded off to 3 effective figures
	Mass of single coil	Unit mass of coil (kg/m)x length (m)	
	Total mass (kg)	Total mass of each coil	Integral number of kg

Note:

(i) Nominal mass of single sheet shall be calculated by calculating the volume of the sheet and multiplying the same with density of sheet (density 7.85 g/ cubic cm) and rounding the same to 4 effective figures.

(ii) Mass of the coating shall be calculated by multiplying the surface area of single sheet with indicated/nominal coating mass (g/square meter) as shown for triple spot test (Table A).

(iii) For calculation of corrugated sheet mass, the width before corrugation shall be considered while calculating the area.

6.5 Corrugations

The depth and pitch of corrugation shall be as follows;

Grade	Depth of Corrugation (mm)	Pitch of Corrugation (mm)
A	17.5	75
B	12.5	75

The number of corrugations shall be 8,10, 11 or 13 per sheet. The overall width of the sheets before and after corrugation shall be as given in Table below.

TABLE C
Details of Corrugations

Number of corrugations	Grade	Nominal overall width of sheet measured between crowns of outside corrugations	
		Before corrugation mm	After corrugation mm
(1)	(2)	(3)	(4)
8	A	750	660
10	A	900	810
11	A	1000	910
13	A	1200	1110
8	B	750	680
10	B	900	830
11	B	1000	930
13	B	1200	1130

7 Non Asbestos High Impact Poly Propylene Reinforced Cement Semi Corrugated Sheets Roofing

Non Asbestos High Impact Poly Propylene Reinforced Cement Semi Corrugated Sheets shall be to IS 14871 : 2000. These sheets shall be free from cracks, chipped edge corners or other damages.

7.1 The laying shall be the same as CGS sheet except that

- (i) The sheets shall be laid with the end stamped „Top' on the smooth side pointing towards the ridge,
- (ii) The sheets shall invariably be laid from right to left starting at the eaves with the procedure for mitring etc.
- (iii) The side laps provided will be of one corrugation, the left hand small corrugation of each sheet being covered by the right hand large corrugation of the next sheet.
- (iv) Asbestos cement expansion joints shall be inserted every 45 metres or so in the length of the roof. Specially manufactured expansion joint pieces shall be used for the purpose. The end lap of expansion joints shall not be less than 150 mm. If the expansion joints may be between the purlins, these should be stitched with seam bolts.

8 RED OR WHITE SAND STONE ROOFING

8.1 Sand Stone Slabs

Stone slabs shall be hard, sound and durable. The slabs shall be rough chisel dressed on the top so that the dressed surface shall not be more than 6 mm from a straight edge placed on it. The edges of the depressions or projections shall be chisel dressed in a slant, so that surface does not have sharp unevenness. The sides shall also, be chisel dressed to a minimum depth of 20 mm so that the dressed edges shall at no place be more than 3 mm from a straight edge butted against it. The thickness of the slab shall be uniform and as specified in the item with a permissible tolerance of 2 mm. The slabs shall be uniform in length, the length being 5 to 8 mm less than the centre to centre spacing of the supporting wooden Joists (Karries) or RCC battens. Unless the design require some other shape the slabs shall be rectangular.

The width of the slabs shall not be less than 40 cm. The maximum spacing of rafters (Karries) or RCC batten supporting the slab shall not more than the spacing given below:-

<i>Thickness of Slab</i>	<i>Maximum Spacing of Rafters</i>
40 mm	52.5 cm.
45 mm	60 cm.
50 mm	68 cm.

8.2 Laying

The slabs shall be washed clean and wetted before being laid. The stone slabs shall be jointed in cement mortar 1:4 (1 cement: 4 coarse sand). The width of joints shall not be more than 8 mm not less than 5 mm. The top joints shall be finished flush and ceiling Joints pointed with the cement mortar 1:3 (1 cement: 3 fine sand).

- 9 In case of corrugated G.S. sheet, the sheet shall be laid on the roof with a lap of not less than 15 cm. at the end of two corrugation at the sides. The holes for the screws or bolt shall be drilled (not punched) from in side toward outside about 23 cm. apart or as directed by the Engineer-in-charge. On the sides and at every 2nd corrugation on the ends, care being taken that all holes shall occur on the ridge of the sheet on the outside as laid in a uniform pattern.
- 10 The rates for G.S. sheet roofing are inclusive of necessary overlaps and wastages in cutting and all standard screws, nuts, washers, bolts, patent 'J' & 'L' hooks, bolts and other fasteners required as per specifications unless otherwise specified.
- 11 In tiled roofing, the three lowest courses of tiles of each layer, ridge and hip tiles shall be set in cement mortar 1:6 (with pigment to match the colour of tiles and are inclusive of these items).
- 12 In Mangalore tiles, the three end rows at eaves, gable or other exposed parts should be tied with G.I. wire 18 gauge.
- 13 The wooden planks, fixed in the ceiling shall be of 20mm thickness and shall be planned, moulded, beaded and fixed to the pattern as directed by the Engineer-in-charge. The wooden beading should be of size 65x12mm section, fixed to the frame work with necessary screws and spacing not exceeding 30cm. or as directed by the Engineer-in- Charge. The overlaps of beading shall be mitred at the junction.
- 14 The blown bitumen to be used for water proofing treatment shall conform to IS : 702.
- 15 The self finished felt type-2, grade-2 fibre base, self finished, bitumen felt shall conform to IS: 1322-1970.
- 16 Hessain base felt type-3 shall conform to IS : 1322-1970.
- 17 The rates include the cost of all materials, labour, T&P, wastages and hire & running charges of machineries etc. for all the items of this chapter.

(For Detail Refer Roofing specification / CPWD specification)

WOOD AND P.V.C. Work

Applicable IS Codes

- IS 204 (Part I) : Specification for tower bolts (ferrous bolt)
- IS 204 (Part 11) Specification for tower bolts (non ferrous metals) IS 205
Specification for non ferrous metal butt hinges
- IS 206 Specification for Tee and strap hinges
- IS 207 Specification for Gate and shutter hook and eye
- IS 281 Specification for mild steel door bolts for use with pad locks
- IS 303 Specification for plywood for general purposes
- IS 362 Specification for parliament hinges IS
363 Specification for hasps and staple IS 364
Specification for fan light catch
- IS 419 Putty for use on window frames
- IS 451 Technical supply condition for wood screws
- IS 452 Specification for door spring rat tail type
- IS 453 Specification for double acting spring hinge
- IS 707 Glossary of terms applicable to timber technology and utilization IS723
Specification for steel counter sunk head wire nails.
- IS 729 Specification for drawer lock, cup board lock and box locks
- IS 848 Specification for synthetic resin adhesive for plywood (phenoic and amino plastic) IS 851
Specification for synthetic resin adhesive for const. work (non structural in wood) IS 1003 (Part I)
Specification for timber panelled and glazed shutter Part I (door shutters) IS 1003 (Part II)
Specification for timber panelled and glazed shutter Part II (window and ventilator shutter)
- IS 1141 Specification for code of practice for seasoning of timber
- IS 1200 Part XIV Method of measurement of building and civil engg work glazing. IS 1200
Part XII Wood work and joinery
- IS 1328 Specification for veneered decorative plywood
- IS 1341 Specification for steel butt hinges
- IS 1378 Specification for oxidized copper finishes
- IS 1566 Specification for hard drawn steel wire fabric
- IS 1568 Specification for wire cloth for general purpose
- IS 1658 Specification for hard drawn steel wire fabric
- IS 1659 Specification for block boards
- IS 1734 Determination of density and moisture content, IS
1823 Specification for floor door stopper
- IS 1868 Specification for anodic coating on aluminium and its alloy
- IS 2046 -do- Decorative thermosetting synthetic resin bonded laminated sheet
- IS 2095 Specification for gypsum plaster board
- IS 2202 (Pt I) Specification for wooden flush door shutter, solid core type (plywood face panels)
- IS 2202 (Part II) -do- (Particle boards and hard board face panels) IS
2209 Specification for mortice lock (Vertical Type)
- IS 2380 Method of test for wood particle board and board for lignocelluloses material

- IS 2547 Specification for gypsum plaster
- IS 2681 Specification for non-ferrous metal sliding door bolts use with pad locks
- IS 3087 Specification for wood particle boards (Medium density) for general purpose. IS 3097 Specification for veneered particle board
- IS 3818 Specification for continuous (Piano) hinges
- IS 3847 Specification for mortice night latch
- IS 4948 Specification for welded steel wire fabric for general use
- IS 4992 Specification for rebated mortice lock
- IS 5187 Specification for flush bolts
- IS 5509 Specification for Fire Retardant Plywood
- IS 5930 Specification for mortice latch
- IS 6318 Specification for plastic wire window fastners
- IS 6607 Specification for rebated mortice lock (Vertical type)
- IS 6760 Specification for slotted counter sunk head wood screws. IS 7196 Specification for hold fast
- IS 7534 Specification for sliding locking bolts for use with pad lock
- IS 8756 Specification for mortice ball catch for use in wooden almirah
- IS 9308 (Part II) Specification for mechanically extracted coir fibres. (Mattress coir fibres) IS 9308 (Part III) -do- Decorated coir fibre
- IS 12049 Dimensions and tolerance relating to wood based panel materials
- IS 12406 Specification for medium density fibre board
- IS 12817 Specification for stainless steel Butt Hinges
- IS 12823 Specification for wood products -Prelaminated particle Boards
- IS 14616 Specifications for laminated veneer lumber
- IS 14842 Specification for coir veneer board for general purposes
- IS 14856 Specification for glass fibre reinforced plastic (FRP) panel type door
- IS 14900 Specifications for transparent float glass

Definition

1 Best:-

Refers to the quality of materials and workmanship, shall mean that in the opinion of the concerned Engineer-in-Charge, there is no superior material or article or class of workmanship obtainable in the market

2 Ballies: -

Thin round poles usually without bark.

3 Beam: -

4 Cross Band

A general term indicating a transverse layer of veneer or veneers in composite wood products.

5 Decorative Veneers

Veneers having attractive appearance due to figure, colour, grain, lusture, etc.

6 Hard Wood

7 Freeze Rail

Horizontal member, mortised or otherwise secured to the stiles of a door, provided just below the freeze panel usually provided for decorative purposes in the uppermost portion of the door.

8 Joint:A prepared connection for joining adjacent pieces of wood. veneer, etc.

9 Muntin

Small horizontal or vertical dividing bars within basic framework of a window, or door subdividing and supporting the glass panes or panels of doors.

10 Particle Board

A board manufactured from particles of wood or other lignocellulose material, for example, flakes, granules, shavings, slivers, splinter agglomerated, formed and pressed together by use of an organic binder together with one or more of the agents, such as heat, pressure, moisture and a catalyst.

11 Particle

Distinct particle or fraction of wood, or other lignocellulose material produced mechanically for use as the aggregate for making a particle board. This may be in the form of flake, granule, shaving, splinter and sliver.

12 Plywood

A board formed of three or more layers of veneers cemented or glued together, usually with the grain of adjacent veneers running at right angles to each other.

13 Seasoning

A process involving the reduction of moisture content in timber under more or less controlled conditions towards or to an amount suitable for the purpose for which it is to be used.

14 Seasoned Timber

Timber whose moisture content has been reduced to the specified minimum, under more or less controlled processes of drying.

15 First Class Wood

Individual hard and sound knots shall not be more than 25 mm in diameter and the aggregate area of all the knots shall not exceed one per cent of the area of the piece.

16 Second Class Wood

Individual hard and sound knot shall not be more than 40 mm in diameter and aggregate of all the knots shall not exceed one and half per cent of the area of the piece. Wood shall be generally free from sapwood, but traces of sapwood may be allowed.

FRAMED WORK:

- 1 The timber used in the work shall conform to IS: 883.
- 2 Rates include cost of all materials i.e. timber spikes, nails, screws, glue etc. required for the work. Rates also include cost of all labour for making, hosting, erecting and fixing in position.
- 3 Timber described as "Framed and Fixed" timber include:-
 - 3.1 Joints in wood work are not permitted. Unless otherwise specified, all joints shall be simple tenon and mortice joints.
 - 3.2 Lapping, having, tabling, scarping, notching, birds mouth cutting, splayed or bevelled ends.
 - 3.3 Framing together with mortise and tenon tusk tenon or dovetailed joints.
 - 3.4 Framed joinery put together with white lead or glue in joints and pinned with hard wood or bamboo pins.
 - 3.5 Boring for bolts.
 - 3.6 Hoisting erecting and fixing in position.
 - 3.7 Small labours like splays, chambers, rounded angles and rounded nosing.

Abbreviation

Grade BWR- Boiling water resistant for coir veneer board
Grade MR - Moisher resistant for coir veneer board
FPT - Flat pressed three layer
PTMT - Polytetra Methylene Tetraphthalate
UPVC - Unplasticized Polyvinyl chloride

SHUTTERS :

- 1 For all hard wood shutters, timber shall conform to IS : 883.
- 2 For factory made panelled shutters approved hard wood as per IS : 4021 duly kiln seasoned as per IS : 1141 shall only be accepted.
- 3 Flush doors with solid block board core shall conform to IS:2201-1973.
- 6 Glass panes shall conform to IS : 1761.
- 7 Teak wood shall be used with the government permission.

Measurements

Wood work shall be measured for finished dimensions. No allowance shall be made for dimensions supplied beyond those specified. Length of each piece shall be measured over all nearest to a cm. so as to include projections for tenons, scarves or mitres. Width and thickness shall be measured to the nearest mm. Cubical contents can be worked out in units cubic meters upto 3 places of decimal in whole numbers.

Framework 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 meters correct to two places of decimal. 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

MANDATORY TESTS FOR WOOD & P.V.C. WORK

Material	Test	Field/ Laboratory Test	Test Procedure	Minimum quantity of material/ work for carrying out the test	Frequency of testing
Timber	Moisture content	Field by moisture	As given in specification	1 cum	Every one cum or part thereof.
Flush door	End immersion Test knife test Adhesion Test	Laboratory	IS 2202	26 shutters	As per sampling and testing specified in ...use 9.7.11
Mortice	Testing of spring	Laboratory	IS 2209	50 Nos	100 or part thereof.

Rates :

The rate includes the cost of material and labour involved.

(For Detail Refer UADD Wood & PVC work specification / CPWD specification)

ALUMINIUM WORK

Notes:

- 1 Aluminium sections used for fixed/openable windows, ventilators, partitions, frame work & doors etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer-in-Charge for technical, structural, functional and visual considerations.
- 2 The aluminium extruded sections shall conform to IS 733 : 2008 and IS 1285 for chemical composition and mechanical properties. The stainless steel screws shall be of grade AISI 304.
- 3 The permissible dimensional tolerances of the extruded sections shall be as per IS 6477 and shall be such as not to impair the proper and smooth functioning / operation and appearance of door and windows.
- 4 Aluminium sheets for use as kick panels shall be 1.25 mm thick aluminium alloy sheet as per IS 1948 and sheet shall be as per IS 737 : 2008.
- 5 Aluminium alloy sheet for use in general paneling work shall be of types and thickness as specified and conforming to the requirement of IS 737 : 2008.
- 6 Aluminium sheets shall be of approved make and manufacturer. Aluminium panel may be prefabricated units manufactured on modular or non-modular dimension.
- 7 The float glass that conform to the IS 14900 : 2000.
- 8 Flate transparent sheet glass shall be as per IS 2835.
Prelaminated Particle Boards shall be as per IS 12823 :1990.
- 9 DOOR, WINDOW, VENTILATOR AND PARTITION FRAMES
 - (i) The holes in concrete/masonry/wood/any other members for fixing anchor bolts/fasteners/screws shall be drilled with an appropriate electric drill.
 - (ii) The fabrication of the individual door/windows/ventilators etc. shall be done as per the actual sizes of the opening left at site.
 - (iii) The frames shall be trully rectangular and flat with regular shape corners fabricated to true right angles.
 - (iv) The assembled composite units shall be checked for line, level and plumb before final fixing is done.
 - (v) Where aluminium comes into contact with stone masonry, brick work, concrete, plaster or dissimilar metal, it shall be coated with an approved insulation lacquer, paint or plastic tape to ensure that electrochemical corrosion is avoided.
- 10 DOOR, WINDOW, VENTILATOR AND SHUTTERS
Manufactured from extruded aluminium alloy sections of standard sizes and designs complete with fittings, shall be as per IS 1948.
- 11 **Hydraulic Floor Spring**

The hydraulic floor spring shall be heavy duty double action floor spring of make approved by the Engineer-in-Charge suitable for door leaf of weight minimum 100 kg. The top cover plate shall be of stainless steel, flushing with floor finish level. The contractor shall cut the floor properly with stone cutting machine to exact size & shape. The spindle of suitable length to accommodate the floor finish shall be used. The contractor shall give the guarantee duly supported by the company for proper functioning of floor spring at least for 10 years

12 Measurements

(i) All the aluminium sections including snap beading fixed in place shall be measured in running meter along the outer periphery of composite section correct to a millimeter. The weight calculated on the basis of actual average (average of five samples) weight of composite section in kilogram correct to the second place of decimal shall be taken for payment. (Weight shall be taken after anodizing). The weight of cleat shall be added for payment. Neither any deduction nor anything extra shall be paid for skew cuts.

(ii) The height and width of double glazed/single glazed unit (the area of glass unit outside the snap beading shall only be measured) as fixed in place shall be measured correct to one centimeter and area calculated in sqm. Correct to second place of decimal shall be taken for payment.

13 Rates

The rates include the cost of all the materials, labours involved in all the operations as described in nomenclature of item and particular specification.

(For Detail Refer Chapter of Aluminium Work specification)

BRICK WORK

Applicable IS Codes

Notes for Specifications :-

IS 1200 (Part 3): Method of measurements of brick works

IS 1077 : Common burnt clay building bricks. IS 712 : Specification for building limes.

IS 3495 : Method of test for burnt clay building bricks.

1 This work shall consist of construction of structures with bricks jointed together by cement mortar in accordance with the details shown on the approved drawings or as approved by the competent authority.

2 Burnt clay bricks shall conform to the requirements of IS:1077. They shall be free from cracks and flaws and nodules of free lime. The brick shall have smooth rectangular faces with sharp corners and emit a clear ringing sound when struck.

3 Cement mortar for the work shall be as per details given in Chapter III of this SOR.

4 Fire Bricks shall be as per IS : 1526

5 Fire cly mortar shall be as per IS : 195 :2005

6 All bricks shall be thoroughly soaked in a tank filled with water for a minimum period of one hour prior to being laid. Soaked bricks shall be removed from the tank sufficiently in advance so that they are skin dry at the time of actual laying. Such soaked bricks shall be stacked on a clean place where they are not contaminated with dirt, earth, etc.

7 The thickness of joints shall not exceed 10mm. All joints on exposed faces shall be tooled to give concave finish.

8 The brick work shall be built in uniform layers, and for this purpose wooden straight edge with graduations indicating thickness of each course including joint shall be used. Corners and other advanced work shall be raked back. Brick work shall be done true to plumb or in specified batter. All courses shall be laid truly horizontal and vertical joints shall be truly vertical. Vertical joints in alternate courses shall come directly one over the other. During construction, no part of work shall rise more than one meter above the general construction level, to avoid unequal settlement and improper jointing. Where this is not possible in the opinion of the Engineer in charge, the works shall be raked back according to the bond (and not toothed) at an angle not steeper than 45 degrees with prior approval of the Engineer in charge. Toothing may also be permitted where future extension is contemplated.

9. Where fresh masonry is to join with masonry that is partially/entirely set, the exposed jointing surface of the set masonry shall be cleaned, roughened and wetted, so as to effect the best possible bond with the new work. All loose bricks and mortar or other material shall be removed.

In the case of vertical or inclined joints, it shall be further ensured that proper bond between the old and new masonry is obtained by interlocking the bricks. Any portion of the brick work that has been completed shall remain undisturbed until thoroughly set.

10.Green work shall be protected from rain by suitable covering and shall be kept constantly moist on all faces for a minimum period of seven days. Brick work carried out during the day shall be suitably marked indicating the date on which the work is done so as to keep a watch on the curing period. Watering may be done carefully so as not to disturb or washout the green mortar.

- During hot weather, all finished or partly completed work shall be covered or wetted in such a manner as will prevent rapid drying of the brick work.
- During the period of curing of brick work, it shall be suitably protected from all damages. At the close of day's work or for other period of cessation, watering and curing shall have to be maintained. Should the mortar perish i.e. become dry, white or powdery through neglect of curing, work shall be pulled down and rebuilt as directed by the Engineer in charge. If any stains, appear during watering, the same shall be removed from the face.
- The scaffolding shall be sound, strong and safe to withstand all loads likely to come upon it. Putlog holes are not allowed.
- Bricks having crushing strength of more than 40 kg/cm². shall be used for load bearing walls.

Classification of Bricks and Masonry:-

- In this schedule the following three classifications of bricks and masonry is given and shall have the minimum crushing strength when tested according to IS: 1077-1992
- Class 40 TM chimney brick/grog or ghol brick: - For this item either selected chimney burnt bricks or ghol bricks are used and superior workmanship than the following varieties is required. The crushing strength when thoroughly soaked in water shall not be less than 40kg/sq.cm.
- Class 25 TM chimney brick masonry: - The crushing strength when thoroughly soaked in water shall not be less than 25 kg/sq.cm.
- Class 25 TM open bhatta or pajaw a burnt brick :- As is clear the only difference between (b) and (c) varies in the method of burning bricks. The crushing strength when thoroughly soaked in water shall not be less than 25 kg/sq.cm.
- Periodical sampling and testing of bricks shall be carried out at contractors cost to classify the brick. The record of test results shall be kept with the Executive Engineer, or Authorised officer
- When reinforcement is used in 10cm thick brick masonry, minimum lap of reinforcement should be 15cm. In case of wall joints of the main wall, reinforcement should go 15cm into the main wall.
- Curing :-
The brick work shall be constantly kept moist on all faces for a minimum period of seven days. Brick work done during the day shall be suitably marked indicating the date on which the work is done so as to keep an watch on the curing period.

Measurement :-

Brick work shall be measured in cubic meters unless otherwise specified. Any extra work over the specified dimensions shall be ignored. Demensions shall be measured correct to the nearest 0.01 m i.e. 1 cm. Areas shall be calculated to the nearest 0.01 sq mtrs and the cubic contents shall be worked out to the nearest 0.01 cubic meters.

Brick work shall be measured separately in the following stages: (a)

From foundation to floor one level (Plinth level)

(b) Plinth (floor one) level to floor two level

(c) Between two specified floor levels above floor two level

Note : (i) Brick work in parapet walls, mumty, lift machine room and water tanks constructed on the roof upto 1.2 m height above roof shall be measured together with the corresponding work of the floor next below.

No deductions or additions shall be done and no extra payment made for the following.:

- (a) Ends of dissimilar materials (that is, Joists, beams, lintels, posts, girders, rafters, purlins, trusses, corbels, steps, etc.); up to 0.1 m² in section;
- (b) Opening up to 0.1 Sq.m. in area (see Note);
- (c) Wall plates, bed plates, and bearing of slabs, chajjas and the like, where thickness does not exceed 10 cm and bearing does not extend over the full thickness of wall;

- (d) Cement concrete blocks as for hold fasts and holding down bolts;
- (e) Iron fixtures, such as wall ties, pipes upto 300 mm diameter and hold fasts for doors and windows; and
- (f) Chases of section not exceeding 50 cm in girth.

(g) Bearing portion of drip course, bearing of moulding and cornice.

Note : In calculating area of an opening, any separate lintel or "sills shall be included with the size of the opening but end portions of lintel shall be excluded. Extra width of rebated reveals, if any, shall also be excluded.

Note : Where minimum area is defined for deduction of an opening, void or both, such areas shall refer only to opening or void within the space measured.

- Walls half brick thick and less shall each be measured separately in square meters stating thickness.

Walls beyond half brick thickness shall be measured in multiples of half brick which shall be deemed to be inclusive of mortar Joints. For the sizes of bricks specified in 6.1.1, half brick thickness shall mean 100 mm for modular and 115 mm for non-modular bricks.

Where fractions of half brick occur due to architectural or other reasons, measurement shall be as follows:

- (a) upto 1/4th brick-actual measurements and
- (b) exceeding 1/4 brick-full half bricks.

String courses, projecting pilasters, aprons, sills and other projections shall be fully described and measured separately in running meters stating dimensions of each projection.

Square or rectangular pillars shall be measured separately in cubic meters in multiple of half brick.

Circular pillars shall be measured separately in cubic meters as per actual dimensions.

Brick work curved on plan shall be measured like the brick work in straight walls and shall include all cutting and wastage of bricks, tapered vertical joints and use of extra mortar, if any.

Brick work curved on plan to a mean radius not exceeding six meters shall be measured separately and extra shall be payable over the rates for brick work in straight walls. Nothing extra shall be rate payable if the mean radius of the brick work curved in plan exceeds six meters.

Tapered walls shall be measured net as walls and extra payment shall be allowed for making tapered surface for brick work in walls.

Brick work with brick tiles shall be measured and paid for separately.

Rates :-

The rate includes the cost of materials and labour required for all the operations described above except the vertical reinforcement and its encasement in cement mortar or cement concrete. The rate shall also include the following :

- (a) Raking out joints or finishing joints flush as the work proceeds;
- (b) Preparing tops of existing walls and the like for raising further new brick work. (c) Rough cutting and waste for forming gables, splays at eaves and the like.
- (d) Leaving holes for pipes upto 150 mm dia. and encasing hold fasts etc.
- (e) Rough cutting and waste for brick work curved in plan and for backing to stone or other types of facing.
- (f) Embedding in ends of beams, joists, slabs, lintels, sills, trusses etc.
- (g) Bedding wall plates, lintels, sills, roof tiles, corrugated sheets, etc. in or on walls if not covered in respective items and
- (h) Leaving chases of section not exceeding 50 cm in girth or 350 sq cm in cross-section.
- (i) Brick on edge courses, cut brick corners, splays reveals, cavity walls, brick works curved on plan to a mean radius exceeding six meters.

MANDATORY TESTS FOR BRICKS/BRICK TILES

S.No.	Material	Test	Field/ laboratory test	Test procedure	Minimum Qty of material for carrying out test
1	2	3	4	5	6

(i)	Bricks/ Brick tiles	Testing of Bricks/Brick Tiles for dimensions, Compressive strength, Water absorption and efflorescence	Laboratory	As given in specification of Chapter Brick work	As Per given specification chapter
(ii)	Sewer Bricks	Dimensions, Compressive strength, Water absorption and efflorescence	Laboratory	As given in specification of Chapter Brick work	As Per given specification chapter
(iii)	Burnt clay perforated building bricks	- do -	- do -	- do -	- do -
(For Detail Refer UADD BRICK WORK specification / CPWD specification)					

SANITARY INSTALLATIONS

Sanitary Material work shall be as per Specification of IS Code Listed below

S.No.	Subject	I.S. Code No.
1	Specification for glazed fire clay sanitary appliances: Part 1 : General requirements.	IS 771 (Pt.1)
2	Specification for glazed fire day sanitary appliances : Part 2 : Specific requirements of kitchen and laboratory sink.	IS 771 (Pt.2)
3	Specific action for general requirements for enameled cast iron sanitary appliances.	IS 772
4	Flushing cisterns for water closets and urinals (Other than plastic cistern)- Specifications.	IS 774
5	Phenolic moulding materials - Specification	IS 1300
6	Water fittings - copper allow float valves (horizontal plunger type) - Specifications	IS 1703
7	Cast Iron/Ductile Iron Drainage Pipes and pipe fittings for Over ground non-pressure pipe line socket and spigot series.	IS 1729
8	Specification for pillar taps for water supply purposes.	IS 1795
9	Polystyrene moulding and extrusion materials - Specifications	IS 2267
10	Specification for Automatic Flushing Cisterns for Urinals (Other than plastic cisterns)	IS 2326
11	Plastic seats and covers for water closets Part 1 : Thermo set seats and covers - Specifications	IS 2548 (Part-1)
12	Plastic seats and covers for water closets Part 2: Thermoplastic seats and covers - Specifications	IS 2548 (Part-2)
13	Vitreous Sanitary appliances (Vitreous china) - Specifications	IS 2556
14	Part 1 : General requirements	IS 2556 (Part-1)
15	Part 2 : Specific requirements of wash-down water closets.	IS 2556 (Part-2)
16	Part 3: Specific squatting pans.	IS 2556 (Part-3)
17	Part 4: Specific requirements of wash basins.	IS 2556 (Part-4)

18	Part 5 : Specific requirements of laboratory sinks.	IS 2556 (Part-5)
19	Part 6: Specific requirements of Urinals & Partition Plates	IS 2556 (Part-6)
20	Part 7 : Specific requirements of accessories for sanitary appliances.	IS 2556 (Part-7)
21	Part 14: Specific requirements of integrated squatting pans.	IS 2556 (Part-14)
22	Part 15 : Specific requirements of universal water closets.	IS 2556 (Part-15)
23	Specifications for Copper alloy waste fittings for wash basins and sinks.	IS 2963
24	Specifications for low density polyethylene pipes for potable water supplies.	IS 3076
25	Urea formaldehyde moulding materials - Specifications	IS 3389
26	Specifications for centrifugally cast (spun) iron spigot and socket soil, waste and ventilating pipes fittings and accessories.	IS 3989
27	Specification for electroplated coating of nickel and chromium on copper and copper alloys.	IS 4827
28	Specifications for high density polyethylene pipes for potable water supplies.	IS 4984
29	Unplasticized P.V.C. pipes for potable water supply - Specifications.	IS 4985
30	Plastic flushing cisterns for water closets and urinals - Specifications	IS 7231
31	Stainless steel sinks for domestic purposes - Specifications.	IS 13983

All joints shall be made with special care, particularly those between pipes of different material. All joints shall be perfectly air and water tight. No joint shall be embedded in wall at any cost.

Flushing Cisterns

The flushing cisterns shall be automatic or manually operated high level or low level as specified, for water closets and urinals. A high level cistern is intended to operate with minimum height of 125 cm and a low level cistern with a maximum height of 30 cm between the top of the pan and the under side of the cistern.

Cisterns shall be of following type (i) Vitreous China (IS 774) for Flushing type (ii) Automatic Flushing Cistern (IS 2326) and (iii) Plastic cisterns (IS 7231).

All exposed G.I., C.I. or lead pipes and fittings shall be painted with approved quality of paint.

All sanitary and plumbing work shall be carried out through licensed plumbers. Fixin of Urinal Lipped, Half Stall (Single or Range) Urinals shall be fixed in position by using wooden plugs and screws. It shall be at a height of 65 cm from the standing level to the top of the lip of the urinal, unless otherwise directed by the Engineer-in-Charge. The size of wooden plugs shall be 50 mm x 50 mm at base tapering to 38 mm x 38 mm at top and of length 5.0 cms. These shall be fixed in the wall in cement mortar 1:3 (1 cement : 3 fine sand). After the plug fixed in the wall, the mortar shall be cured till it is set.

Fixing of Stall Urinal (Single or Range)

The floor slab shall be suitably sunk to receive the stall urinal. Where the floor slab is not sunk, the stall urinal shall be provided over a platform. The lip of the stall urinal shall be flush with the finished floor level adjacent to it. The stall urinal shall be laid over a fine sand cushion of average 25 mm thickness. A space of not less than 3 mm shall be provided all- round, in front, side and filled with water proofing plastic compound. Care shall be taken that after the sub-grade for the floor is cast, one week should

lapse before urinals are installed. The trap and fittings shall be fixed as directed by the Engineer-in-Charge. Payment for the floor and its sub-grade shall be made separately.

Fixing of Wash Basin

6.2.1 The installation shall consist of an assembly of wash basin, pillar taps, C.I. brackets, C.P. brass of P.V.C. union, as specified. The wash basin shall be provided with one or two 15mm C.P. brass pillar taps, as specified. The height of top of the rim of wash basin from the floor level shall be within 750mm to 800 mm.

6.2.2 The basin shall be supported on a pair C.I. cantilever brackets conforming to IS 775 and shall be embedded in cement concrete (1:2:4) block 100 x 75 x 150 mm. Use of M.S. angle or Tee section as bracket is not permitted. Brackets shall be fixed in position before dado work is done. The wall plaster on the rear shall be cut to rest over the top edge of the basin so as not to leave any gap for water to seep through between wall plaster & skirting of basin. After fixing the basin, plaster shall be made good and surface finished matching with the existing one. S.C.I. floor traps conforming to IS 1729 having 50 mm water seal (minimum 35 mm in two pipe systems with gully trap) should be used. Waste pipes laid horizontally should have gradient not flatter than 1 in 50 and not steeper than 1 in 10.

7 Inatallation of Squatting Pan & Water Closet shall be done as per Specifications.

8 Measurement

(i) The pipes shall be measured net when fixed in position excluding all fittings along its length, correct to a cm. When collars are used for jointing SCI pipes these shall be measured as fittings and shall be paid for separately. No allowance shall be made for the portions of the pipe lengths entering the sockets of the adjacent pipes or fittings. The above shall apply to both cases i.e. whether the pipes are fixed on wall face or embedded in masonry. No deduction shall be made in the former case from the masonry measurement for the volume of concrete blocks embedded therein. Similarly no deduction shall be made for the volume occupied by the pipes from the masonry when the former are embedded in the later.

(ii) Sinks, urinals, squatting pan, basins, water closets, foot rest (pair) etc. shall be measured in nos.

9 Rates :-

Rate include the cost of all the materials and labour involved for the completion of items.

(For Detail Refer to Specification prepared by the Urban Administration and Development Department, IS Code & CPHEEO Specifications)

(For Detail Refer UADD BRICK WORK specification / CPWD specification)

AUTOMATIC SLIDING DOOR OPERATOR.

Compliant with European standards and produced according to the guidelines for power-operated windows, doors and gates, BGR 232, the UVV and the VDE regulations. TÜV design tested, tested according to the low voltage guidelines, fulfils DIN 18650 standards. The track profile should be separate from the main profile for enabling reduction in vibration insulation. Operator length = 4150 mm, clear passage opening upto 2000 mm, clear passage height upto 2500 mm, includes micro processor controlled drive unit, with self learning mechanism, program selector with knob, motion detector (eagle 6 radars, 02 nos), mechanical components, toothed belt, cover profile, floor guide for frameless glass (02 nos), glass clamping rail (02 nos), safety device-light barrier (01 pair). Body finish : standard silver anodised operator profile, electromechanical lock with 12 mm plain toughened frameless glass for complete elevation - 2 moving panels. UPS of 750 VA shall be provided by others, which will give power backup of 20 min. Only & if the duration of power cut to the operator is more than 30 min., then separate arrangement needs to be done for the same as automatic operator requires uninterrupted stabilized power supply. The above work complete in all respect as per approved drawings and to the satisfaction of engineer-in-charge / architect consultant

ACP and GLAZING WORKS

**As per the given specification of UADD/CPWD
(For Detail Refer UADD specification / CPWD specification)**

List of Approved Makes

Block Board/Ply (waterproof)	: Greenply/Duro,Kitply,Alpro,Mayur,Jyotiply,Bhutan Tuff
Laminate	: Greenlam/Formica, Decolam, Sundek, Merino, Greenlam, Soniar
Screws	: GWK
Locks and Latches, Hinges Hardware	: Godrej, Secur, Paladium, Al Bihari
Foam	: M.M. Foam, Kool foam
Paints	: Asian, Nerolac, Berger or equivalent
Mirror	: Golden Fish, Triveni, Modi
Glass	: Saint Gobain, Asahi, Modi, Triveni
Adhesives	: Vamicol, Fevicol
Floor Spring and Door closer	: Dorma, Ozone or equivalent
Texture Paint	: Spectrum / Heritage / Unitile / Kamdhenu
Blinds	: VISTA / MAC or equivalent
Carpet	: Birla Trans Asia or equivalent
Pre-laminated board	: Novapan, Bhutan
Aluminium section	: Indal, Hindalco, MANN
Teak wood	: CP teakwood, Verma teakwood
Teak board	: Mysore chip boards, Jyoti boards, Bhutan boards
Medium Density Fibre Board	: Greenply,Marino,Actiontesa
Flush Door	: Greenply/BhutanTuff/Green Flush Door/Kitply/Duroply/Alpro
POP	: Jk Laxmi, Birla, Sakarni
Floor Tiles	: Kajaria / Nitco / Somani/ Johnson
Wooden Flooring	: cronotex, Green floor max or equivalent
Gypsum Board False Ceiling	: Armstrong, Gyproc or equivalent
Accoustic Tile Ceiling	: Armstrong, Gyproc or equivalent
Metal Tile Ceiling	: Armstrong, Gyproc or equivalent
Wooden Ceiling	: Armstrong, Gyproc or equivalent
SS Handrail	: Kich, dorma, Hilti or equivalent

Modular Partition (Cubicles)	:	Merino, Green panel max or equivalent.
Low Height wooden partition	:	Bpergo, onedesk solution, Greenply, Marino, Greenlam or equivalent
Insulated Panel	:	Rinac, Lloyd or equivalent
Green Wall.	:	M/S Rooks & Roots
Cement bonded board	:	'BISON' by NCL
Folding/ movable Acoustic Partition	:	Dorma or equivalent
Furniture	:	Godrej, Wipro, GEEKEN, SpaceWood
Plumbing Fixtures	:	Hindware, Parryware, jaguar
Electrical	:	Wipro, Philips, Crompton, Schneider

QUALITY ASSURANCE AND QUALITY CONTROL

- I. The work shall conform to high standards of design and workmanship, shall be structurally sound and aesthetically pleasing. Quality standards prescribed shall form the backbone for the Quality Assurance and Quality Control system.
- II. At the site level the Contractor shall arrange the materials, their stacking/ storage in appropriate manner to ensure the quality. Contractor shall provide equipment and manpower to test continuously the quality of materials, assemblies, etc., as directed by the Engineer. The tests shall be conducted continuously and the results of tests maintained. In addition, the Contractor shall keep appropriate tools and equipment for checking alignments, levels, slopes and evenness of the surface.
- III. The Engineer shall be free to carry out such tests as may be decided by him at his sole discretion, from time to time, in addition to those specified in this document. The Contractor shall provide the samples and labour for collecting the samples. Nothing extra shall be payable to the Contractor for samples or for the collection of the samples.
 - a) The test shall be conducted at the Site laboratory that may be established by the Contractor or at any other Standard Laboratory selected by the Engineer.
 - b) The Contractor shall transport the samples to the laboratory for which nothing extra shall be payable. In the event of Contractor failing to arrange transportation of the samples in proper time Engineer shall have them transported and recover two times the actual cost from the Contractor's bills.
 - c) The testing charges shall be borne by the Contractor.
 - d) Testing may be witnessed by the Contractor or his authorised representative. Whether witnessed by the Contractor or not, the test results shall be binding on the Contractor.

SECTION-9
Bill of
Quantities

BHOPAL SMART CITY DEVELOPEMNT CORPORATION LTD.

DSR 2016 SOR item sheet

S.NO.	DSR item no.	DESCRIPTION	UNIT	Quantity(G.Floor)	RATE	Amount
		PHASE-III	Sqm	1200		
A		FLOORING WORKS				
1.0	11.47.2	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
		Size of Tile 600x600 mm	Sqm	43	1240.60	53,346
2.0	11.33.1	25 mm wooden planking, tongued and grooved in flooring, including fixing with iron screws complete with :				
a		Second class teak wood	Sqm	90	3094.5	2,78,505

3.0	16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having water absorption less than 0.5% and conforming to IS: 15622, of approved make in all colours and shades in outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	Sqm	6	1450.45	8,703
4.0	8.12.1	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white	Sqm	108	2887.85	3,11,888

		cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :				
		Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.				
5	11.51.1	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm, including Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over				-

		20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm, including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
		18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	Sqm	47	5006	2,35,282
6	8.11.1	Providing and fixing machine cut, mirror/ eggshell polished , Marble stone work for wall lining (veneer work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of				

		matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge.				
		18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	Sqm	132	6647.35	8,77,450
B		FALSE CEILING WORKS				
7.0	26.27.1	Providing and fixing 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.6) at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance > 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm,	Sqm	790	1535.00	12,12,650

cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised @80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be prepainted with polyester baked paint, for all heights. The work shall be carried out as per specifications,

		drawings and as per directions of the engineer-in-charge.				
8.0	26.22.1	<p>Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size</p>				-

	24x32 mm of length 600mm to form grid module of size 600 x 600 mm,				
	suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm. Galvanised iron perimeter wallangle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge. Hilex Ceiling Works				-
	With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.	Sqm	51	1533.45	78,206
C	MISCELLANOUS WORK				

9.0	21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately)	Sqm	36	4608.85	1,65,919
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Civil (UADD item sheet)

S.NO	UADD SOR item no	DESCRIPTION	UNIT	Quantity(G.F floor)	RATE	Amount
		PHASE-III	Sqm	1200		
A		FLOORING WORKS				
1.0	11.39.2	Providing and laying polished vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete.				-
		Size of Tile 60x60 cm x 10 mm	Sqm	865	1109.00	9,59,285

2.0	11.26	Kota stone slab 25mm thick flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar (1 cement : 4 course sand) 1 : 4 (minimum size of kota stone 0.25 sqm)	Sqm	212	819	1,73,628
3.0	11.27	Kota stone slabs 25mm thick in risers of steps, skirting,dado and pillars laid on 12mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	25	821.0 0	20,525
4.0	8.2.8.2	Providing and fixing 16mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all Levels.				-
		Granite of any colour and shade				-
		Area of slab over 0.50 sqm.	Sqm	3	2544. 0	7,632

5	7.40.1	Providing and fixing dry cladding upto 10 meter heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately.)	Sqm				-
		Red sand stone.	Sqm	300	1605.00		4,81,500
B		FINISHING WORKS					
6	13.17	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	Sqm	1136	112		1,27,232
7	13.2.3	15mm cement plaster on the rough side of single or half brick wall of mix :1:6 (1 cement: 6 fine sand)	Sqm	81	112		9,072
8	13.1.3	12 mm cement plaster of mix :1:6 (1 cement: 6 fine sand)	Sqm	689.1	95		65,465
9.0	13.60.1	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:					-
		Two or more coats on new work	Sqm	984.1	53.0		52,157
10.0	13.45.1	Finishing walls with textured exterior paint of required shade :					-

		New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including base coat of water proofing cement paint applied @ 2.20kg/10 sqm.	Sqm	81	125.0	10,125
11.0	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	984.1	64.0	62,982
C		FALSE CEILING WORKS				
12.0		Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length,				-
	12.45.1	and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick button wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm dia 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long				-

		the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufactures specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer in Charge but excluding the cost of painting with :				-
		12.5 mm thick tapered edge gypsum board conforming to IS: 2095- Part I.	Sqm	167	718.0	1,19,906
						-
						-
D		MISCELLANOUS WORK				-
13.0	9.20.1	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters using following hinges.				-
14		35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	23	2100.0	48,300
15.0	9.83	Providing and Fixing IS:3564 marked Aluminium Die Cast Body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete	Nos.	10	795.0	7,950

16.0	17.1.1.2	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and paneling to be paid for separately) :				-
17		For fixed portion				-
b		Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg.	10	366.0	3,660
18	17.1.2.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).				-
a		Anodised aluminium (anodised transparent or dyed to required shade according to IS:1868,Minimum anodic coating of grade AC15)				

b		Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg.	30	388.0	11,640
19	6.33	Providing and laying Gypsum panel partitions 100mm thick with water proof Gypsum panels of size 666x500x100mm, made of calcite phosphor Gypsum fixed with tongue and groove, jointed with bonding plaster as per manufacturers specifications in superstructure above plinth level up to floor 2 level. Gypsum blocks will have a minimum compressive strength of 9.3 kg/cm2	Sqm	174	824.0 0	1,43,376
20	6.34	Extra for Gypsum panel Partitions in superstructure above floor II level for every floor or part thereof.	Sqm	174	14.00	2,436
21	17.2.1	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of Engineer-in-charge				-
		Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	Sqm	21	905.0 0	19,005
22.0	10.26.1	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer.				-
		M.S. tube.	Kg.	1541	84	1,29,416

S.NO.	Item type	DESCRIPTION	UNIT	Quantity(G.Floor)
		PHASE-III	Sqm	1200
A		FLOORING WORKS		
1.0	NON SOR	Providing and fixing in position tufted Loop pile carpet of make Unitex/Splender/Harmony make product name Trump: Ocean or approved equivalent .100% polypropylene, having pile weight 850 gsm/sq.m (+- 5%) and Pile thickness 6 mm all complete with an under layer 10 mm thk PU foam as per the direction of Engineer-in – charge . Carpet to be installed with standard fevicol/Dunlop adhesives	Sqm	50
13	NON SOR	Grass Carpet : Providing and fixing in position artificial in position artificial grass carpet of make Unitex/Duraturf laid over prepared floor as per the direction of Engineer in Charge ,Carpet to be installed with the standard fevicol/ adhesives.	Sqm	40
B		FINISHING WORKS		
4.0	NON SOR	Providing & fixing GI chicken mesh at corners, column heads, junction of brick & RCC works, as directed including fixing with nails etc. prior to plastering (26G, 12mm diamond size, galvanized chicken mesh).	Sqm	103
D		MISCELLANOUS WORK		
5.0	NON SOR	Providing and fixing 1200mm long Stainless Steel Two point fixing Glass Door Handle pair of 35mm dia with Integral Locking Function with Dead bolt movement of 32 mm Key operated form outside and Thumb turn inside supplied with high security keys including 22 mm dia Holes	Nos.	16
6.0	NON SOR	Providing and fixing 50 cm long aluminium kicking plate of size 100x1.5 mm, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or powder coat dyed to required colour or shade, with necessary screws etc. complete.	Sqm	2
9.0	NON SOR	SS Railing 1000 high on stair case including hollow tubes, channels, balustrade plates @ 4th tread etc as per design, welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete	Rmt	22

10.0	NON SOR	Providing and fixing 62mm (OD) 12G stainless steel (Grade 304) hand rail made of Hollow tubes with 38mm dia 14G pipe support @ 500mm c/c. Each pipe support shall be provided with stainless steel shoe at the masonry / glass wall junction. The joint of the pipe support and the sleeve shall be fixed with lead. (Rate shall include making holes in walls / glass, welding, fixing buffing etc	Rmt	28
11.0	NON SOR	Providing and fixing 12.5mm thick toughened glass in partitions and staircase	Sqm	124



S.NO.	DSR-2016	DESCRIPTION	UNIT	Quantity(G.Floor)	RATE
		PHASE-III	Sqm	1200	
A		<u>SANITARY FIXTURES & FITTINGS ESTIMATE</u>			
3.0	17.22A	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	Nos.	1	795.15
a	17.69.1	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms	Nos.	1	82.55
b	17.69.2	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	Nos.	1	98.80
7.0	17.10.1.1	Providing and fixing Stainless Steel A ISI 304 (18/8) Kitchen sink with drain board 510x1040 mm bowl depth 250 mm as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required	Nos.	1	4,120.80
8.0	17.34.1	Providing and fixing CP Brass toilet paper holder.	Nos.	6	385.35






9.0	18.49.1	Providing and fixing 15mm dia nominal bore C.P. brass bib cock of approved quality confirming to IS : 8931	Nos.	6	371.70
12.0	17.31	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Nos.	6	817.95
13.0	18.53.1	Providing and fixing 15 mm nominal bore C.P brass angle valve for basin mixer and geyser points of approved quality confirming to IS:8931	Nos.	9	475.70
14.0	17.71	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour. weighing not less than 105 gms.	Nos.	3	137.85
15.0	8.10.1	Providing and fixing White Agaria Marble Stone slab table rubbed, edges rounded and polished of size 75x50 cm deep and 1.8 cm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.	Sqm.	2	2,831.95

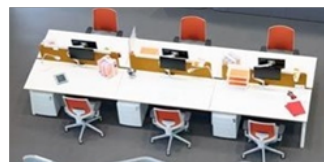
S.NO	Item type	DESCRIPTION	UNIT	Quantity(G.F floor)
		PHASE-III	Sqm	1200
A		<u>SANITARY FIXTURES & FITTINGS ESTIMATE</u>		








1.0	Non-DSR	Providing and fixing white color vitreous Wall hung European W.C. with CP bolts, nuts, CI brackets, with 'P' or 'S' trap including low level same color glazed concealed dual flushing cistern of 3 / 6 liters capacity , with brass working parts, chrome plated mounting bolts, actuator (push button), angle valve, flush pipe, inlet spud, slip in connector, brass ball valve & PVC floating ball, with brass CP wall cap and CP tubes, same color plastic seat with C.P. Fixtures, like bolts & rubber buffers etc. complete including same color porcelain paper holder for toilet paper roll and CP jet system complete with 15 mm dia CP connection pipe with 15 mm dia CP stop cock complete including cutting and making good the walls and floors wherever required.	Nos.	6
2.0	Non-DSR	Providing and fixing of approved make white glazed 550 x 400 mm size counter sunk oval wash basin mounted on CI bracket with 32mm CP brass bottle trap of casted type 32mm CP waste coupling, 32mm medium class GI waste pipe taken upto floor trap in concealed plumbing with the required specials, 1 No. 15mm CP brass Push type pillar tap (2.5 LPM), 1 No. 15mm CP brass angular stop cock with wall flange and 1 No. 450 mm long CP copper inlet connecting pipe with end nuts all of approved make etc., complete.	Nos.	6
5.0	Non-DSR	Providing and fixing White glazed vitreous chinaware urinal (flat back) with Sensor System With Fuzzy Logic Control Software battery operated mini bardon urinal with rear inlet, concealed C.I. brackets, Heavy duty flexible hose, Inlet Spud T62-16V1, Urinal Sensor (Concealed Type) brass C.P. supply and flushing connections with 1 NO. 15 mm Dia. Brass C.P. angle type stop cock with brass C.P. wall cap, with C.P. waste coupling with 32 mm Dia C.P. bottle traps with C.P. wall caps brass CP cones at inlet and outlets concealed lead pipes drains form bottle trap drain pipes in floor. Joining etc complete.	Nos.	5
6.0	Non-DSR	Providing and fixing Low flow PTMT swivelling shower, 15mm nominal bore with Flow rate @ 8.4 LPM, Weighing not less than 40gms	Nos.	2
10.0	Non-DSR	15mm dia nominal bore Low flow C.P. brass bib cock of approved quality confirming to IS : 8931 with flow rate @ 8.4 LPM	Nos.	6
11.0	Non-DSR	Providing and fixing 15mm dia nominal bore C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms with flow rate @ 8.4 LPM	Nos.	6






16.0	Non-DSR	Providing and fixing grab bar 600mm as per approved make. (Utec make TVB - 7632)	Nos.	1
17.0	Non-DSR	Providing and fixing C.P. brass twin robe hooks as per approved make.(Utec make UT101)	Nos.	6






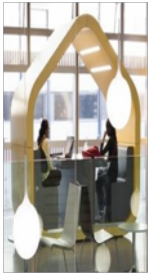
Furniture (NON SOR) sheet						
S. NO	Description	Unit	Total	Rate	Total Amount	Images
A	FURNITURE ESTIMATE					
	Ground Floor					
1	Meeting Room					
a)	CTW 03 : Meeting Table Top of 25mm thk Board with laminate on top duly Post formed & white balancing laminate below, Leg will be in 25mm thick PLB. Double Modesty in 18mm thick PLB. Table shall have wire Management system,accessible from the table top on the horizontal surface. Flip top to the flush of work surface. Size:- 2000mm X 1200mm x 750mmHt. Oval Table –	No s.	1		-	
b)	Smart 02 : Low Back Revolving Chair Chair in moulded ply, Double Cladding, High Density PU foam in Seat & Back, Chrome Arms & cushion on it. Central tilting Mechanism, Chrome base, & Gas Lift	No s.	8		-	
2	Video Conference Room					
a)	Lounge sofa with back platform 9 seater sofa with leatherite fabric and powder coated mild steel platform attached at back	No s.	1		-	
b)	Round table-Verve :Side Table Table with BSL Top. Frame in Rectangle pipe of 20mm x 40mm & base plate in M Steel duly powder coated Size : - Top size 900mm dia x 750mm Ht	No s.	1			 







c)	AF 303 : High Rise Swivel Chair Cushion in seat & back, Ring type footrest, Metal Base with castors & Gas Lift.	No s.	6		-	
3	Smart Conference Room	No s.	0		-	
a)	Table - 4400x700x750 Providing & Fixing of Confetrence table Ensemble of BP Ergo dimension 4400mm L x 700mm W x 750mm Ht. Worktop shall be made of 25mm Prelamparticle Board of Grade II , Type-II as per IS:12823 and backing laminate of 0.6mm All the exposed edges are finished with 2mm thick PVC lipping machine pressed. Legs are made of Aluminum Extrusion of 1.6mm thickness with aesthically designed elliptical Cover sections . Legs are designed to facilitate wire management . Cross Member are in CRCA steel and the Beam is made of MS and has size 75x50 mm of 1.5mm thickness in powder coated finish of 50 microns thickness and is connected with legs to allow for traversing of wires horizontally. The beam raceway provided with slots for fixing data and electrical switches and sockets for each user under the table. The above furniture should be as per specification and sample approved by client. Model "Ensemble" of BP Ergo.	No s.	1		-	
b)	Smart 02 : Low Back Revolving Chair Chair in moulded ply, Double Cladding, High Density PU foam in Seat & Back, Chrome Arms & cushion on it. Central tilting Mechanism, Chrome base, & Gas Lift	No s.	17		-	
d)	Storage(3900x450x1000mm Storage 4 : 4 Openable doors storage unit with BSL & all side edge bending in 18mm thickckness. All in Single Laminate (One Colour) Note : 10% Charges Extra for More than 2 Laminate.	No s.	1		-	
4	Office Spaces	No s.	0		-	
a)	Hexa Workstation cabin Duco paint finish on partition walls made with MDF with laminate finish table top hanged on walls	No s.	6		-	
b)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	6		-	








c)	Modular workstations 1350mm (L) X 750mm (W) X 750mm (H) Laminate finish with moving pedestals including a single drawer and a shutter with lock, Fabric finish screen and side glass partition.	No s.	8		-	
d)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	8		-	
5	Demo Area	No s.	0		-	
a)	Customised workstation with moving pedestal and fabric screen of desired color shade. Set of 4 workstations with size 1500mm X 1500 mm L-TYPE	No s.	8		-	
b)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	24		-	
c)	Round Table – 1200 dia*750mm-Dieto (S) : Side Table Table with Membrane Top. Frame in S. Steel with center pipe of 60mm dia & base plate in M Steel covered with S. Steel sheet.	No s.	1		-	
d)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	4		-	
e)	Storage 450x1350x1000mm-Storage 3 : 2 Openable Doors and 2 Drawers with BSL & all side edge bending in 18mm thick. All in Single Laminate (One Colour) Note : 10% Charges Extra for More than 2 Laminate.	No s.	2		-	
f)	Printer & Plotter table- 2400x750x900mm(Repro)	No s.	1		-	
6	Collab	No s.	0		-	

a)	Table (950x300mm)-Greatline (Conference) : Rectangle Conference Table (Imported) Top of 25mm thk Board with laminate on top duly Post formed & white balancing laminate below. Frame in MS of 50mm pipe with Tapered Bush. Table Size:- 950mmx300mm W x 750mmHt	No s.	5			
b)	Wooden bean bag	No s.	3			
	Round Table – 350 dia Verve :Side Table Table with BSL Top. Frame in Rectangle pipe of 20mm x 40mm & base plate in M Steel duly powder coated Size : - Top size 350mm dia x 450mm Ht	No s.	4			
7	Breakout	No s.	0			
a)	Round table-450 dia Verve :Side Table Table with BSL Top. Frame in Rectangle pipe of 20mm x 40mm & base plate in M Steel duly powder coated Size : - Top size 450mm dia x 750mm Ht	No s.	2			
b)	Side sitting chair Flexible 02 : Cone Shape Puffy fully cushioned with inside frame in wood, Bottom base in SS for ground mounting. Size : 450mm L x 450mm W x 450mm Ht	No s.	4			
c)	Sofa – 6 Seater Signature 28 : A set of seating which creates meeting & group friendly enviornment within work space. Size : 2000mm L x 900mm W x 760mm Ht (1 Parts of Boomrang) Picture have 2 parts	No s.	1			
d)	Wooden screen wall-9000x3000mm	Sq m	27			
8	Breakout	No s.	0			

a)	Round Table – 1000mm dia -T Fold 01 : Folding Cafe TableTable with BSL Top of 25 mm thk & finished with PVC Edge banding , Frame in S. Steel / M.S of 60mm dia Centre Pipe supported by 4 legs of 40mm x 20mm pipes, fitted on M.S. folding bracket. Size:- 1000mm diax750mm	No s.	3			
b)	ChairsOX : High Rise Swivel Chair Wooden moulded shell duly Cushion, Height Adjuster 700mm in Chrome Plating.	No s.	12			
9	Meeting Room	No s.	0			
a)	Round Table – 1000 dia Dieto (S) : Side Table Table with Membrane Top. Frame in S. Steel with center pipe of 60mm dia & base plate in M Steel covered with S. Steel sheet. Sizes:- Top Size 1000 dia x 750mm ht.	No s.	3			
b)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	12			
10	Breakout	No s.	0			
a)	Table – 3300x750x750 mm-Wooden table with laminate finish	No s.	2			
b)	Chair-Ole 02 : (Italian) Fix café / Lounge Chair Chair with PP moulded shell, Fix Base in SS with revolving plate.	No s.	12			
c)	Meeting Alcove / Pocket seats (L) 2700 mm X (W) 900 mm X (H) 2100 mm External structure Duco paint finish Table top with base in Duco paint finish Fabric cushioned sofa seat (D'Décor: Cotton Chick-Grey)	No s.	1			

e)	Collab Booth – Single- 1200x2400x2400mm -Signature 26 : Booth Seating with roof : combination of wood & Metal fully cushioned. Price for set of Two Seat Size : 500 mm L x 500mm D x 450mm Ht Booth Size : 1200mm D x 2400mm Ht x 50mm Thk	No s.	4	-	
11	Office Area	No s.	0	-	
a)	Workstation cabin Duco paint finish on partition walls made with MDF with laminate finish table top hanged on walls	No s.	4	-	
b)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism,Gas lift.	No s.	4	-	
c)	Customised workstation with moving pedestal and fabric screen of desired color shade.Set of 4 workstatiomns with size 1500mm X 1500 mm L-TYPE	No s.	11	-	
d)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism,Gas lift.	No s.	33	-	
e)	Round Table – 1200 dia*750mm-Dieto (S) : Side Table Table with Membrane Top. Frame in S. Steel with center pipe of 60mm dia & base plate in M Steel covered with S. Steel sheet. Sizes:- Top Size 1200x750mm ht.	No s.	2	-	
f)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism,Gas lift.	No s.	8	-	

g)	Cabinet-2700x450x1000 -Storage 4 : 4 Openable doors storage unit with BSL & all side edge bending in 18mm thickckness. All in Single Laminate (One Colour) Note : 10% Charges Extra for More than 2 Laminate.	No s.	1	-	
h)	Cabinet-1800x450x1000-Storage 4 : 4 Openable doors storage unit with BSL & all side edge bending in 18mm thickckness. All in Single Laminate (One Colour) Note : 10% Charges Extra for More than 2 Laminate.	No s.	1	-	
l)	Cabinet-900x450x1000-Storage 4 : 4 Openable doors storage unit with BSL & all side edge bending in 18mm thickckness. All in Single Laminate (One Colour) Note : 10% Charges Extra for More than 2 Laminate.	No s.	1	-	
j)	Repro-Printer table-1500x750x900mm	No s.	1	-	
12	Office Spaces	No s.	0	-	
a)	Round Table – 1000 dia -Dieto (S) : Side Table Table with Membrane Top. Frame in S. Steel with center pipe of 60mm dia & base plate in M Steel covered with S. Steel sheet. Sizes:- Top Size 1000mm dia x 750mm ht.	No s.	3	-	
b)	AM 104 : Staff Chair Chair In M.S Frame with moulded foam in seat & back, Sleek PU Arms, Nylon base, Central Tilting Mechanism, Gas lift.	No s.	12	-	
13	Infant Sleeping Room	No s.	0	-	
a)	Bed (900x600mm)	No s.	3	-	
14	Feeding Room	No s.	0	-	
	Bed (600x1200mm)	No	1	-	

		s.			-	
15	Unisex Cleaning Room	No s.	0		-	
	Bed-1050x500mm	No s.	7		-	
16	Collab	No s.	0		-	
a)	Table (950x300mm)-Greatline (Conference) : Rectangle Conference Table (Imported) Top of 25mm thk Board with laminate on top duly Post formed & white balancing laminate below. Frame in MS of 50mm pipe with Tapered Bush. Table Size:- 950mmx300mm W x 750mmHt	No s.	5		-	
b)	Wooden bean bag	No s.	3		-	
c)	Round Table – 350 dia Verve :Side Table Table with BSL Top. Frame in Rectangle pipe of 20mm x 40mm & base plate in M Steel duly powder coated Size : - Top size 350mm dia x 450mm Ht	No s.	4		-	
17	Meeting Room	No s.	0		-	
a)	CTW 03 : Meeting Table Top of 25mm thk Board with laminate on top duly Post formed & white balancing laminate below, Leg will be in 25mm thick PLB. Double Modesty in 18mm thick PLB. Table shall have wire Management system,accessible from the table top on the horizontal surface. Flip top to the flush of work surface. Size:- 2000mm X 1200mm x 750mmHt. - Oval Table	No s.	1		-	
b)	Smart 02 : Low Back Revolving Chair Chair in moulded ply, Double Cladding, High Density PU foam in Seat & Back, Chrome Arms & cushion on it. Central tilting Mechanism, Chrome base, & Gas Lift	No s.	7		-	
18	Waiting Area	No s.	0		-	
a)	Reception Desk	No s.	1		-	

b)	Smart 02 : Low Back Revolving Chair Chair in moulded ply, Double Cladding, High Density PU foam in Seat & Back, Chrome Arms & cushion on it. Central tilting Mechanism, Chrome base, & Gas Lift	No s.	1	-	
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GLAZING AND ACP(DSR 2016)

S.NO.	DSR-2016 item no	DESCRIPTION	UNIT	QTY.	RATE
A		ACP WORK			
0	25.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).	kg	10000	338.25
1	25.7	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:			
	a)	Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.			

	b)	Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.			
	c)	The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the engineer-in-Charge.	Sqm	1320	3405.90

		However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places."			
B		GLAZING WORK			
1		SEMI UNITIZED CURTAIN GLAZING			
	25.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:			
	a)	Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)- cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:			
	b)	Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the			

		required capacity and in required numbers.			
	c)	Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.			
	d)	Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it Watertight.			
	e)	Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an			

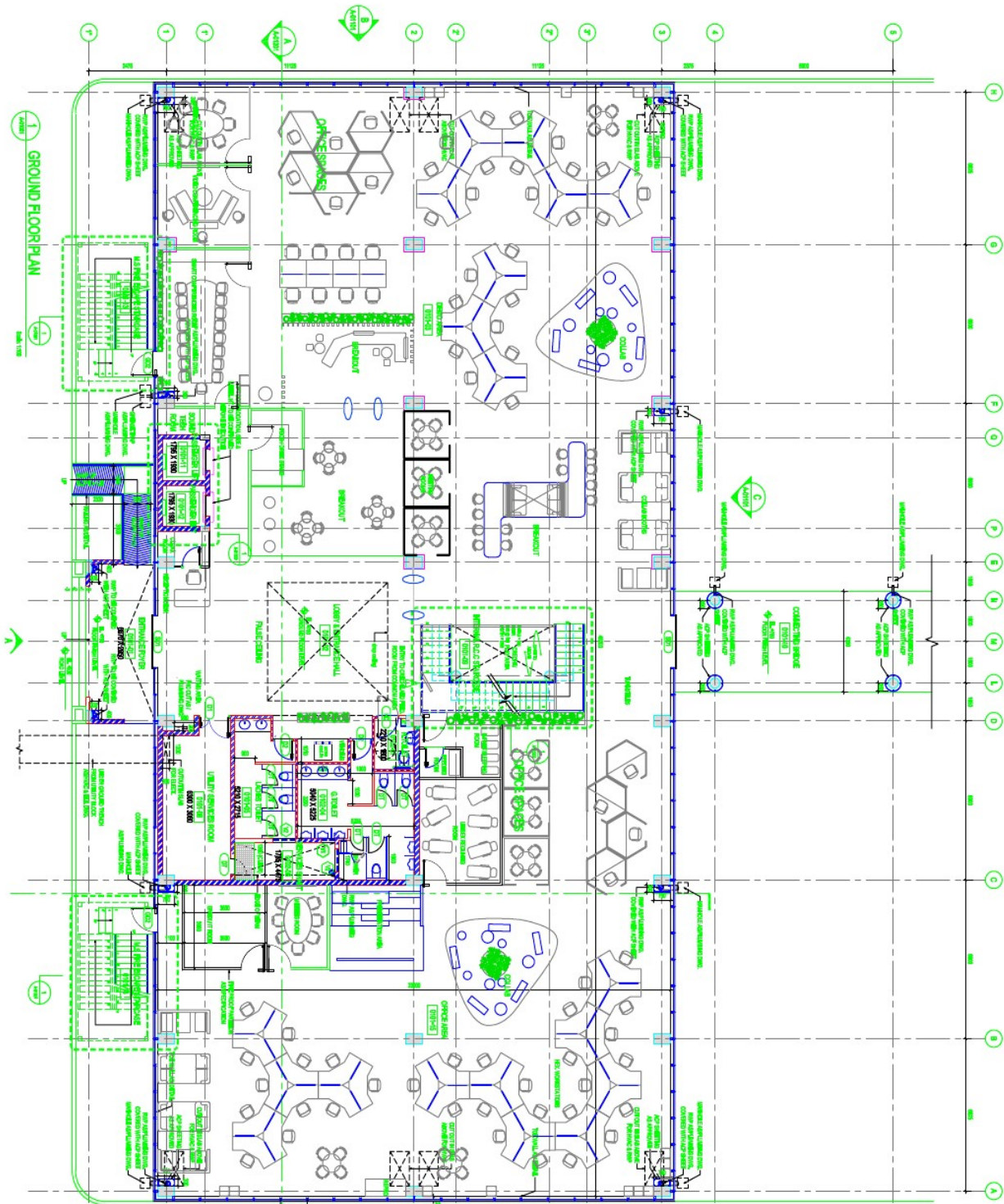
		approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge.			
		Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.			
		Note:- 2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories (1) Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr (2) Static Water Penetration Test. (50pa to	Sqm	3100	2409.90

		<p>1500pa) as per ASTM- 331-09 testing method for a range up to 2000 ml.(3) Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml (4) Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTM-330-10 testing method for a range upto 50 mm (5) Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test. Tests to be conducted on site. (6) Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml</p>		
2	25.3	<p>Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor.“(Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2)“For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.“</p>		

	i)	Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20%, shading coefficient (0.25-0.28) and U value of 3.0 to 3.3 W/m ² degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site Requirement.	Sqm	2200	3730.7
		TOTAL			

SECTION-10

Drawings



GROUND FLOOR PLAN

SCHEDULE OF DOORS & WINDOWS

TYPE	WIDTH	HEIGHT	GLL	REMARKS
S01	2200	2400	-	SLIDING DOUBLE LEAF GLASS DOOR
G02	1800	2400	-	SINGLE LEAF GLASS DOOR
D1	1500	2400	-	DOUBLE LEAF FLUSH DOOR
D2	900	2400	-	SINGLE LEAF FLUSH DOOR
D7	700	2250	150	SINGLE LEAF ALL PANEL DOOR
HD	1000	2400	-	HANDICAP DOOR
DT	750	2100	-	MODULAR TOLLST DOOR
V1	600	800	1800	ALL VENTILATOR
V2	1000	800	1800	ALL VENTILATOR



DISPLAY PODIUM
PRESENTATION AREA

SITTING BOOTHS

SITTING BOOTHS
TURNSTILES

HECA WORKSTATIONS
OFFICE SPACES -
WORKSTATIONS & MEETING

BREAKOUT

COLLAB
FLOORING CARPET