E-TENDER NO. CLI9636P22

ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

Plot No. 19, Sector 16A, Noida – 201301, U.P.
Phone: 0120 –2419000, 2419200
Fax: 0120-2488310
E-mail: corp_c&p@oilindia.in
Web Site: www.oil-india.com

OIL INDIA LIMITED (OIL) invites **Domestic Competitive Bids (LCB)** from competent experienced Service Providers through its E- procurement portal **"https://etender.srm.oilindia.in/irj/portal"** for the following works / services:

Tender No.	**CLI9636P22 Dated 14.02.2022**
GeM Availability Report ID:	**GEM/GARPTS/01022022/3LVZFNZ4LVCP**
Description of Work / Service	**CONSTRUCTION OF TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT.**
Type of Bid	**Single Stage Two Bid System**
Bid Submission Mode	Bid should be uploaded in OIL's e-Procurement portal.
Bid Closing Date & Time	**15.03.2022 (14:00 HRS : Server Time)**
Technical Bid Opening Date & Time	**15.03.2022 (15:00 HRS : Server Time)**
Priced Bid Opening Date & Time	Will be intimated to the eligible bidder(s) nearer time.
Bid Opening Place	Office of the General Manager (C&P), Oil India Limited, Plot No. 19, Sector-16A, Noida-201 301, Uttar Pradesh
Bid Validity	Minimum 120 days from the original date of Technical bid opening
Pre-Bid conference	OIL will organize a pre-Bid conference on **24.02.2022** at Noida/Goa, India for providing clarifications to prospective bidders on Bid Rejection Criteria (BRC)/Bid Evaluation Criteria (BEC), Scope of Work and Special Terms & Conditions of the tender to enable them to understand the exact service requirement of the Company. Bidders interested to attend the pre-bid conference should contact/intimate well in advance for details of the venue, to **a. Sh. U. J. Gogoi, Dy. General Manager (Materials)** **Oil India Limited, Plot No. 19, Sector 16A** **Noida, UP – 201301** **E-MAIL: ujjwal_gogoi@oilindia.in**. **b. Sh. S. K. Tripathi, Manager (Contracts)** **Oil India Limited, Plot No. 19, Sector 16A** **Noida, UP – 201301** **E-MAIL: shashank.tripathi@oilindia.in**. At the most **2(two) representatives from each prospective bidder** shall be allowed to participate in the pre-bid conference. All costs for attending the pre-bid conference shall be to prospective bidders' account. The prospective bidders shall **submit their queries through E-mail** to e-mail id **ujjwal_gogoi@oilindia.in** on or before **22.02.2022 (17:15 Hrs)**. OIL shall either reply / clarify their queries through e-mail or in the pre-bid conference. OIL will not be responsible for non-receipt or late receipt of any bidder's query in OIL's office.

	Note: The exact time & venue of the Pre-Bid Conference will be intimated to the Bidders nearer the time. All costs in regards to attending the pre-bid conference by the Bidders shall be to their respective account. ***In view of Current Pandemic Situation due to Covid-19 disease, the Pre Bid conference may be organised through Video Conference and in that case OIL will share the VC link to the interested bidders who intend to participate.***
Bid Security (EMD)	**NIL. However, bidders to submit a "Bid Security Declaration" accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the NIT, they will be suspended for the period of two years. This suspension of two year shall be automatic without conducting any enquiry.**
Bid Security Validity	Minimum 150 days from the original date of Technical bid opening
Amount of Performance Security	**3% of contract value excluding GST**

2.1 For participation, applicants already having User ID & Password for OIL's E-procurement portal need to register against the IFB in OIL's E- procurement portal for participation.

2.2 Bidders without having E-tender Login ID and Password should complete their online registration at least **seven (7) days** prior to the scheduled bid closing date and time of the tender. For online registration, Bidder may visit the OIL's E-tender site https://etender.srm.oilindia.in/irj/portal. Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.

2.3 No physical Bid documents will be provided.

3.0 The link to OIL's E-Procurement portal has been also provided through OIL's web site (www.oil-india.com).

4.0 The details of IFB / Bid Documents can be viewed using "Guest Login" provided in the E-Procurement portal.

5.0 To participate in OIL's e-procurement tender, bidders should have a legally valid **Digital Certificate Class III [Organization] along with Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name** are not acceptable. Bidders are advised to go through "User Manuals" provided in OIL's E-Tender portal for bid submission procedure.

Digital Signature Certificates issued by the following Certifying Authorities (CA) are currently configured in OIL's E-Tender portal:

- ✓ e Mudhra
- ✓ Safescrypt
- ✓ (n)Code Solutions
- ✓ Verasys
- ✓ Capricorn
- ✓ Pantasign
- ✓ RISL

- ✓ NSDL

In case, bidder is using Class 3 DSC (Organization) along with Encryption Certificate issued by a Certifying Authority other than those mentioned above then, the bidder has to inform OIL at least 15 days before the Bid Closing date to enable OIL to verify credibility of the same for necessary mapping in OIL's E-Tender portal.

6.0 In accordance with OM No. 6/9/2020-PPD dated 24.08.2020 issued by Department of Expenditure (Procurement Policy Division), Ministry of Finance, it shall be mandatory for sellers providing Goods and Services to Central Government Organizations to be registered in GeM and obtain a unique GeM Seller ID, at the time of placement of order/acceptance of contract. Accordingly, bidders are required to provide their GeM Seller ID in their bid, if available at the time of tendering. However, in case any bidder does not have GeM Seller ID at the time of tendering then, such bidder will be required to provide their GeM Seller ID in case considered for award of contract before issuance of LOA.

(Ujjwal Jyoti Gogoi)
Dy. General Manager (Materials)
For Chief General Manager (C&P)
For Chairman & Managing Director

DATE: 14.02.2022

E-TENDER NO. CLI9636P22

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FORWARDING LETTER

OIL INDIA LIMITED invites Domestic Competitive Bids (LCB) from experienced / approved Contractors / Firms for the following mentioned work / service under **SINGLE STAGE TWO BID SYSTEM** through its e-Procurement site:

DESCRIPTION OF WORK/ SERVICE:

CONSTRUCTION OF A TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT.

CONTRACT PERIOD: As defined in Scope of Work and Special Terms & Conditions.

BID SECURITY: **NIL. However, bidders to submit a "Bid Security Declaration" accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the NIT, they will be suspended for the period of two years. This suspension of two year shall be automatic without conducting any enquiry.**

BID CLOSING DATE & TIME: 15.03.2022 (14:00 HRS: Server Time)

TECHNICAL BID OPENING DATE & TIME: 15.03.2022 (15:00 HRS: Server Time)

~~a) **Bid Security** deposited vide On-line Payment / Bank Guarantee / Bank Draft / Banker's Cheque~~

~~No._____ dated_____ of_____~~

~~**Original hard copy of (a) (In case of Bidder(s) submitting Bid Security in the form of Bank Guarantee / Bank Draft / Banker's Cheque) should reach the office of General Manager (C&P), Oil India Limited, Plot No. 19, Sector-16A, Noida-201 301, Uttar Pradesh on or before bid closing date & time, otherwise Bid will be rejected. A scanned copy of Bid Security document / EMD Invoice (in case of Bid Security deposited on-line) may also be uploaded along with the Un-priced Techno-Commercial Bid documents.**~~

b) Bidders to confirm that in the event of the award of Contract will submit Performance Security Deposit **@ 3% of contract value excluding GST** and this will not earn any interest.

2.0 SEALED ENVELOPES containing the ~~**Bid Security Deposit**~~, **Power of Attorney, Printed catalogue and Literature**, if called for in the tender shall be marked with the above Tender Number and description of work and addressed to:

CHIEF GENERAL MANAGER (C&P),
OIL INDIA LIMITED,
PLOT NO. 19, SECTOR-16A, NOIDA-201 301
UTTAR PRADESH

~~All bidders (except those exempted) shall deposit the requisite **BID SECURITY DEPOSIT** in the form of **On-line Payment / Bank Guarantee (as per format provided and valid for minimum 150 days from the original date of opening of Technical Bid) / Bank Draft / Banker's Cheque** from any Scheduled Indian Bank in favour of M/s Oil India Limited and payable at NOIDA / DELHI. This Bid Security Deposit shall be refunded to all unsuccessful bidders, but is liable to be forfeited in full or part, at Company's discretion, as per Clause No. 6.0 below. **Bids without Bid Security Deposit in the manner specified above will be summarily rejected.**~~

3.0 **Bid should be submitted online up to 02:00 PM (IST) (Server Time) on the date as mentioned and will be opened on the same day at 03:00 PM (IST) at Office of the CGM (C&P) in presence of authorized representative of the bidder**.

4.0 **The rates shall be quoted per unit as specified in the "BIDDING FORMAT" attached under "Notes and Attachments" tab of the e-tender portal.**

The bid and all uploaded documents must be Digitally signed using **Digital Certificate Class III [Organization] along with Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.

*Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name** are not acceptable.*

The authenticity of above digital signature may be verified through authorized CA (Certifying Authority) after bid opening. If the digital signature used for signing is not of Class III [Organization] along with Encryption Certificate, the bid will be rejected.

Bidder is responsible for ensuring the validity of digital signature and its proper usage by their employee.

The bid including all uploaded documents shall be digitally signed by duly authorized representative of the bidding company.

5.0 The Company reserves the right to reject any or all the tenders or accept any tender without assigning any reason.

6.0 (a) No Bidder can withdraw his bid within the validity or extended validity of the bid. Withdrawal of any bid within validity period will lead to action against the erring / defaulting agency as per OIL's Banning Policy dated 6th January, 2017 available in OIL's website www.oil-india.com.

(b) Once a bid is withdrawn, the offer will be treated as withdrawn and no further claim / correspondence will be entertained in this regard.

7.0 The Bid must be valid for 120 (One Hundred Twenty) days from the original date of Technical bid opening.

8.0 Conditional bids are liable to be rejected at the discretion of the Company.

9.0 The work may be split up, if applicable, amongst more than one contractor at the sole discretion of the Company.

10.0 The selected bidder will be required to enter into a formal contract, which will be based on their bid and O.I.L's Standard Form of Contract.

11.0 Time will be regarded as the essence of the Contract and the failure on the part of the Contractor to complete the work within the stipulated time shall entitle the Company to recover liquidate damages and / or penalty from the Contractor as per terms of the tender /contract.

12.0 The contractor will be required to allow OIL officials to inspect the work site and documents in respect of the workers payment.

13.0 **BACKING OUT BY BIDDER:** In case any bidder withdraws their bid within the bid validity period, ~~Bid Security will be forfeited and~~ the party will be put on Holiday as per the Banning Policy (available in OIL's website) of Company.

14.0 **BACKING OUT BY L-1 BIDDER AFTER ISSUE OF LOA:** In case LOA issued is not accepted by the L1 bidder or the Performance Security is not submitted as per the terms of the contract within the time specified in the Bid Document, ~~the Bid Security shall be forfeited and~~ the bidder shall be dealt as per the Banning Policy (available in OIL's website) of Company.

15.0 **PROVISION FOR ACTION IN CASE OF ERRING / DEFAULTING AGENCIES:**

Action against erring and defaulting agencies like bidder, contractor, supplier, vendor, service provider will be as per OIL's Banning Policy dated 6th January, 2017 available in OIL's website www.oil-india.com

16.0 **The tender will be governed by:**

Forwarding Letter: SECTION-I
Instruction to Bidders: SECTION - II
Bid Evaluation Criteria (BEC) / Bid Rejection Criteria (BRC): SECTION – III
General Conditions of Contract: SECTION-IV
Scope of Work and Special Terms & Conditions: SECTION-V
Integrity Pact: SECTION-VI
Commercial Check list: SECTION – VII
General Health, Safety & Environment (HSE) Measures: SECTION – VIII
Bidding Format: SECTION – IX (Attached under "**Notes and Attachments**" tab in the main bidding engine of OIL's e-Tender portal)
Confidentiality and Non-Disclosure Agreement: SECTION-X
Annexures & Proformas

SPECIAL NOTE:

Please note that all tender forms and supporting documents are to be submitted through OIL's E-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with Tender No. and due date to The Chief General Manager (C&P), Oil India Limited, Plot No. 19, Sector-16A, Noida-201 301, Uttar Pradesh:

a) ~~ORIGINAL BID SECURITY (Only in case of Bidder(s) submitting Bid Security in the form of Bank Guarantee/Bank Draft/Bankers' cheque)~~
~~A scanned copy of Bid Security may also be uploaded along with the Un-priced Techno-Commercial Bid documents.~~

b) Power of attorney or authorization, or any other document consisting of adequate proof of the ability of the signatory to bind the bidder, in original
A notarized true copy of the "Power of Attorney" shall also be accepted in lieu of the original, if the power of attorney is a general "Power of Attorney". However, photocopy of such notarized true copy shall not be accepted.

Bidder should ensure to submit original documents in accordance with the bidding documents.

c) ANY OTHER DOCUMENT REQUIRED TO BE SUBMITTED IN ORIGINAL AS PER TENDER REQUIREMENT.
Scanned copy(s) of the same should also be uploaded along with the Un-priced Techno-Commercial Bid documents.

The above documents ~~including the Original Bid Security (in case of bidders submitting Bid Security in the form of Bank Guarantee /Bank Draft / Bankers' cheque)~~ must be received at OIL's CGM (C&P)'s office at Noida on or before the bid closing date & time failing which the bid may be rejected.

Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the bid or

submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in the rejection of its offer without seeking any clarifications. Offers sent without the requisite value of prescribed bid security (if called for in the bid) in original will be ignored straightway.

17.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidder has to submit both the "Un-Priced Techno-Commercial" and "Priced" bid through electronic form in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The Technical Bid is to be submitted as per Scope of Work & Technical Specification of the tender. The Price Bid shall be quoted as specified in the "BIDDING FORMAT" attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal. The price quoted in the "PRICE BIDDING FORMAT" will only be considered for evaluation.

18.0 In Technical Bid opening, only Un-Priced Techno-Commercial Bid will be opened. Therefore, the bidder should ensure that Technical bid is uploaded under "Technical Attachments" of "RFx Information" Tab Page only. No price should be given along with Un-Priced Techno-Commercial Bid; otherwise the offer will be rejected. Please go through the help document provided in OIL's e-Portal, in detail before uploading the document.

NB: All the Bids must be Digitally Signed using Digital Certificate Class III [Organization] along with Encryption Certificate as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.

19.0 The Integrity Pact is applicable against this tender:

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide "Section-VI- Integrity Pact" of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.

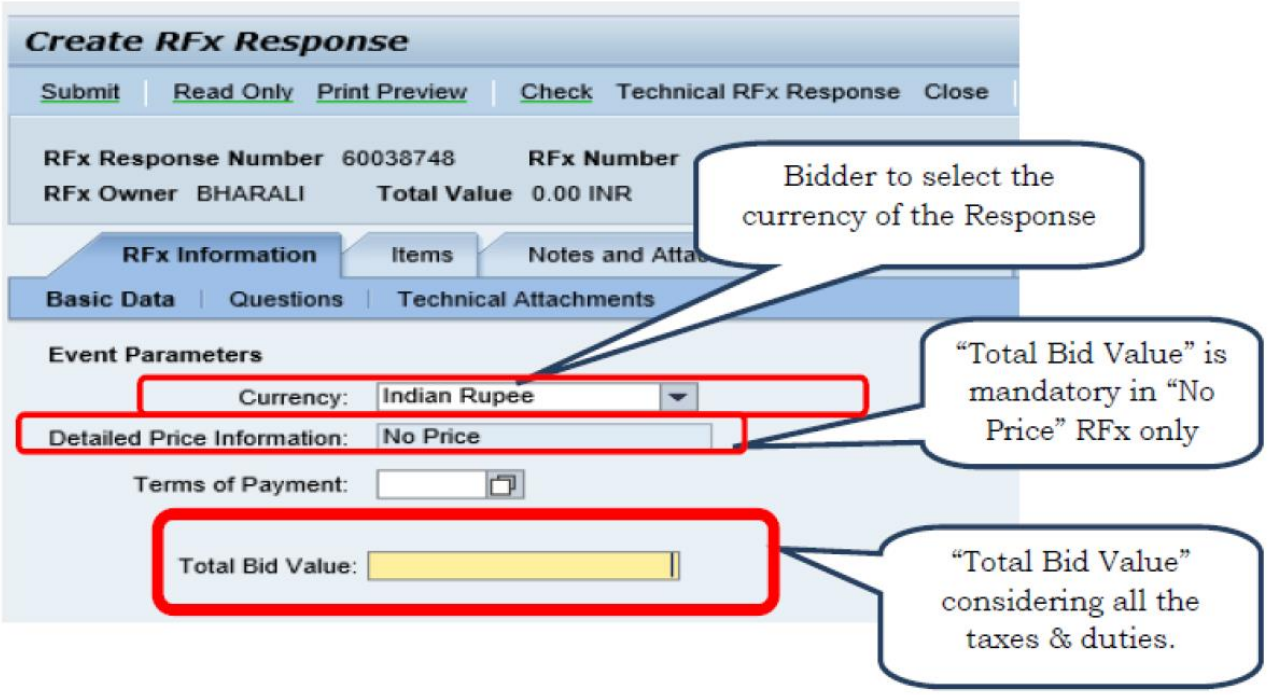
(**Note:** Shri Rudhra Gangadharan, IAS (Retd.), Ex-Secretary, Ministry of Agriculture, E-Mail ID: rudhra.gangadharan@gmail.com, Shri Sutanu Behuria, IAS (Retd.), E-Mail ID: sutanu2911@gmail.com and Shri Om Prakash Singh, IPS (Retd.), Former DGP, Uttar Pradesh, E-mail: Ops2020@rediffmail.com have been appointed as Independent External Monitors).

(a) In case of a joint venture, if applicable and allowed as per tender terms, all the partners of the joint venture should sign the Integrity Pact;

(b) In the event of any dispute between the management and the contractor relating to those contracts where Integrity Pact is applicable, in case, both the parties are agreeable, they may try to settle dispute through mediation before the panel of IEMs in a time bound manner. If required, the organizations may adopt any mediation rules for this purpose. In case, the dispute remains unresolved even after mediation by the panel of IEMs, the organisation may take further action as per the terms and conditions of the contract. The fees / expenses on dispute resolution shall be equally shared by both the parties.

20.0 In order to participate against OIL's E-Tenders, Bidders are advised in their own interest to kindly go through the "*User Manuals*" available in the main login page of OIL's E-Tender portal.

21.0 Maintenance of Total bid value in the Response: For convenience of the qualified Bidders and to improve transparency, the rates/costs quoted by bidders against OIL's e-tenders shall be available for online viewing by such Bidders whose price bids are opened by Company. A Bidder can view item-wise rates/costs of all other such peer bidders against the tender immediately after price bid opening, if the e-tender is floated by Company with PRICE CONDITION. **In case the Price-Bid is invited by Company through attachment form under "Notes & Attachment" (i.e. NO PRICE Condition), Bidders must upload their detailed Price-Bid as per the prescribed format under "Notes & Attachment", in addition to filling up the "Total Bid Value" Tab taking into account the cost of all individual line items and other applicable charges like freight, tax, duties, levies etc. Under NO PRICE Conditions (i.e., Price Bid in attachment form), the "Total Bid Value" as calculated & quoted by the Bidder shall only be shared amongst the eligible bidders and Company will not assume any responsibility whatsoever towards calculation errors/omissions therein, if any**. Notwithstanding to sharing the "Total Bid Value" or the same is whether filled up by the Bidder or not, Company will evaluate the cost details to ascertain the inter-se-ranking of bidders strictly as per the uploaded attachment and Bid Evaluation Criteria only. Online view of prices as above shall be available to the Bidders only upto seven days from the date of Price-Bid opening of the tender.



23.0 CONSULTANT: OIL has appointed M/s. ARC Test House & Consultants LLP, Guwahati as Architect / Consultant for implementation of the project/works. Bidders are advised to adhere to relevant circulars issued by Central Vigilance Commission, India with regards to communication with Consultant, conflict of interest etc. Clarifications / queries related to the tender, if any, shall be addressed to ujjwal_gogoi@oilindia.in / shashank.tripathi@oilindia.in of OIL only.

(END OF SECTION–I)

INSTRUCTION TO BIDDERS

1.0 Bidder shall bear all costs associated with the preparation and submission of bid. Oil India Limited, hereinafter referred to as 'Company', will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2.0 BIDDING DOCUMENTS:

2.1 The services required, bidding procedures and contract terms are prescribed in the Bidding Documents. This Bidding Document includes the following:

a) A forwarding letter (**SECTION-I**) highlighting the following points
   (i) Company's IFB/ Tender No.
   (ii) Description of Work / Service
   (iii) Bid closing date and time
   (iv) Bid opening date, time and place
   (v) Bid submission place
   (vi) The amount of Bid Security
   (vii) The amount of Performance Guarantee
b) Instructions to Bidders: **SECTION-II**
c) Bid Evaluation Criteria (BEC) / Bid Rejection Criteria (BRC): **SECTION – III**
d) General Conditions of Contract: **SECTION-IV**
e) Scope of Work and Special Conditions of Contract: **SECTION-V**
f) Integrity Pact: **SECTION-VI**
g) Commercial check list: **SECTION – VII**
h) General Health, Safety & Environment (HSE) Measures: **SECTION – VIII**
i) Bidding Format (Attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal): **SECTION-IX**
j) Confidentiality and Non-Disclosure Agreement: **SECTION-X**
k) Annexures & Proformas

2.2 The bidder is expected to examine all instructions, forms, terms and specifications in the Bid document. Failure to furnish all information required in the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk & responsibility and may result in the rejection of its bid.

3.0 TRANSFERABILITY OF BID DOCUMENTS:

3.1 Bid Documents are non-transferable. Bid can be submitted only in the name of the bidder in whose name the Bid Document has been issued.

3.2 Unsolicited offers will not be considered and will be rejected straightway.

4.0 AMENDMENT OF BIDDING DOCUMENTS:

4.1 At any time prior to the deadline for submission of bids, the company may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by issuance of an Addendum.

4.2 The Addendum will be sent in writing through post / courier / Fax / e-mail to all prospective Bidders to whom Company has sent the bid documents and also be uploaded in the OIL's e-portal in the "Technical RFx" area under the tab "External Area ⟶ Amendments". The company may, at its discretion, extend the deadline for bid submission for any reason. Bidders shall also check OIL's E-Tender portal ["Technical RFx" area under the tab "External Area ⟶ Amendments"] for any amendments to the bid documents before submission of their bids.

5.0 PREPARATION OF BIDS

5.1 LANGUAGE OF BIDS: The bid as well as all correspondence and documents relating to the bid exchanged between the Bidder and the Company shall be in English language, except that any printed literature may be in another language provided it is accompanied by an English translated version, which shall govern for the purpose of bid interpretation.

5.2 DOCUMENTS COMPRISING THE BID:

(A) UN-PRICED TECHNO-COMMERCIAL BID:

(i) Bid Documents duly filled up as indicated.

(ii) Complete technical details / specifications of the services offered as per tender requirement.

(iii) Documentary evidence established in accordance with BEC / BRC.

(iv) Statement of Non-Compliance (if any).

(v) Bid Security Declaration ~~(scanned copy). Hard copy of original Bid Security (Only in case of bidder(s) submitting bid security in the form of Bank Guarantee / Bank Draft / Banker's Cheque) should be sent separately to reach **on or before the bid closing date & time failing which the bid shall be rejected.**~~

(vi) Any other document as per tender requirement (scanned copy). Hard copy(s) of the same, if called for in the tender, should be sent separately to reach **on or before the bid closing date & time failing which the bid shall be rejected.**

(vii) Integrity Pact

Note: Please note that no price details should be uploaded along with the UN-PRICED TECHNO-COMMERCIAL BID

(B) PRICED BID:

Bidder shall quote their rates / prices in the "BIDDING FORMAT" attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal. The price quoted in the "BIDDING FORMAT" will only be considered for evaluation.

Offer should be inclusive of any Tax, Duty, etc., as applicable. The rates shall be fixed and firm for the entire tenure of the contract and shall be binding on both the parties. No changes in these rates shall be allowed under any circumstances during the tenure of this service agreement except as mentioned in the Bid Document.

6.0 DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS:

6.1 These are listed in **BID EVALUATION CRITERIA (BEC) / BID REJECTION CRITERIA (BRC),** SECTION-III of the Bid document.

~~7.0 BID SECURITY:~~

~~**7.1** The Bid Security is required to protect the Company against the risk of Bidder's conduct, which would warrant forfeiture of the Bid Security, pursuant to sub-clause 7.9.~~

~~**7.2** All the bids (except those exempted) must be accompanied by Bid Security in Original for the amount as mentioned in the "Forwarding Letter" and shall be in the OIL's prescribed format as Bank Guarantee (BG) enclosed with the NIT vide Proforma VII or a Bank Draft/Bankers' cheque in favour of OIL and payable at NOIDA / DELHI from any schedule Indian Bank.~~

~~**Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-scheduled Bank of India shall not be acceptable.**~~

~~**7.3** Alternatively, Bidders can submit Bid Security on line through OIL's electronic Payment Gateway.~~

~~**7.4** Any bid not secured in accordance with sub-clause 7.2 above shall be rejected by the Company as non-responsive.~~

~~**7.5** The bidders shall extend the validity of the Bid Security suitably, if and when specifically advised by OIL, at the bidder's cost.~~

~~**7.6** Unsuccessful Bidder's Bid Security will be discharged and/or returned within 30 days after finalization of IFB.~~

~~**7.7** Successful Bidder's Bid Security will be discharged and/or returned upon Bidder's signing of the contract. Successful bidder will however ensure validity of the Bid Security till such time the formal Service Agreement in conformity with Clause 22.0 below is signed.~~

~~**7.8** Bid Security shall not accrue any interest during its period of validity or extended validity.~~

~~**7.9** The Bid Security may be forfeited:~~

~~i) If the bidder withdraws the bid within its original/extended validity.~~
~~ii) If the bidder modifies/revises their bid suo-moto.~~
~~iii) If the bidder does not accept the order/contract.~~
~~iv) If the bidder does not furnish Performance Security Deposit within the stipulated time as per tender/order/contract.~~
~~v) If it is established that the bidder has submitted fraudulent documents or has indulged into corrupt and fraudulent practice, the bid security shall be forfeited after due process in addition to other action against the bidder.~~

~~**7.10** In case any bidder withdraws their bid during the period of bid validity, Bid Security will be forfeited and the party shall be dealt with as per OIL's Banning Policy.~~

~~**7.11** A scanned copy of the original Bid Security in the form of either Bank Guarantee or Banker's Cheque or Bank Draft may be uploaded by bidder along with the Technical bid in the "Technical Attachment" tab of OIL's E-portal. The original Bid Security (In case of Bidder(s) submitting Bid Security in the form of Bank Guarantee / Bank Draft / Banker's Cheque) shall be submitted by bidder to the office of General Manager (C&P), Oil India Limited, Plot No. 19, Sector-16A, Noida-201 301, Uttar Pradesh~~ **~~on or before Bid Closing date and time~~**~~.~~

~~**7.12** A bid shall be rejected straightway if Original Bid Security is not received within the stipulated date & time mentioned in the Tender and/or if the Bid Security validity is shorter than the validity indicated in Tender and/or if the Bid Security amount is lesser than the amount indicated in the Tender.~~

8.0 PERIOD OF VALIDITY OF BIDS:

8.1 The Bid must be valid for 120 (One Hundred Twenty) days from original date of Technical bid opening. **Bids of shorter validity will be rejected as being non-responsive.** If nothing is mentioned by the bidder in their bid about the bid validity, it will be presumed that the bid is valid for 120 days from original date of Technical bid opening.

8.2 In exceptional circumstances, OIL may solicit the Bidder's consent to an extension of the period of validity. The request and the response thereto shall be made in writing (or by

Fax / E-mail). A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify their bid.

9.0 FORMAT AND SIGNING OF BID:

9.1 The original and all copies of the bid shall be typed or written in indelible inks and shall be signed digitally by the Bidder to bind the Bidder to the contract.

10.0 SUBMISSION OF BIDS:

10.1 Bids are to be submitted online through OIL's E-procurement portal with digital signature. The bid and all attached documents should be digitally signed by the bidder using **Digital Certificate Class III [Organization] along with Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India before bid is uploaded.

Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name** are not acceptable.

The bid including all uploaded documents shall be digitally signed by duly authorized representative of the bidder to bind the Bidder to the contract. The authenticity of above digital signature shall be verified through authorized CA after bid opening and in case the digital signature is not of Class III [Organization] along with Encryption Certificate, the bid will be rejected.

Bidder is responsible for ensuring the validity of digital signature and it's proper usage by their employees.

10.2 Any person signing the Bid or any other document in respect of this Bid Document or other relevant documents on behalf of the Bidder without disclosing his authority to do so shall be deemed to have the authority to bind the Bidder. If it is discovered at any time that the person so signing has no authority to do so, the Company (OIL) may, without prejudice to any other right or remedy, cancel his Bid or Contract and hold the Bidder liable to the Company (OIL) for all costs and damages arising from the cancellation of the Bid or Contract including any loss which the Company (OIL) may sustain on account thereof.

10.3 Timely submission of the bids is the responsibility of the Bidder and Bids should be submitted before the bid closing date and time. Company shall not be responsible for any delay.

10.4 Physical Bid/ E-mail/ Fax /Telephonic offers will not be accepted.

10.5 Bidder shall submit the Bid, duly completed in terms of the Bid Document.

10.6 Before submission of Bids, Bidders are requested to make themselves fully conversant with all Conditions of the Bid Document and other relevant information related to the works to be executed under this contract.

11.0 DEADLINE FOR SUBMISSION OF BIDS:

11.1 Bids should be submitted on-line up to 02.00 PM (IST) (Server Time) on the Bid Closing date mentioned in the Forwarding Letter.

11.2 No bid can be submitted after the submission deadline is reached. The system time displayed on the e-procurement web page shall decide the submission deadline.

11.3 The documents in physical form must be received by Company at the address specified in the "Forwarding Letter" **on or before the bid closing date & time**. Timely delivery of the same at the address mentioned in the Forwarding Letter is the responsibility of the Bidders.

12.0 LATE BIDS:

12.1 Bidders are advised in their own interest to ensure that their bids are uploaded in system before the closing date and time of the bid. No Bid can be submitted once the submission deadline displayed on the e-procurement page has been reached.

13.0 MODIFICATION AND WITHDRAWAL OF BIDS:

13.1 Bidders will be permitted by System to withdraw or make any changes in their bid after the bid has been uploaded by the bidder prior to the Bid Closing date and time as mentioned in the bid. However, it is the responsibility of the bidder to re- submit before the bid closing date and time. But no changes would be allowed by the system once the due date and time for submission of bids has been reached and bids are opened.

13.2 No bid can be modified / withdrawn subsequent to the deadline for submission of bids.

13.3 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity. Withdrawal of any bid within validity period will lead to forfeiture of his / her / their Bid Security Deposit in full and debarred from participation in future tenders, at the sole discretion of the company.

14.0 EXTENSION OF BID SUBMISSION DATE:

14.1 Normally no request for extension of Bid Closing Date & Time will be entertained. However, OIL at its discretion, may extend the Bid Closing Date and / or Time due to any reasons.

15.0 BID OPENING AND EVALUATION:

15.1 The Un-priced Techno-Commercial (Technical) bid will be opened on scheduled Bid opening date & time in the presence of any attending Bidder(s) or their Authorized Representative, if any. However, an authorized letter (format given in Proforma Section) from the Bidder must be produced by Bidder's representative at the time of opening of Tender, without which such representative won't be allowed to attend the opening of Tenders. Only one representative against each Bid will be allowed to attend the bid opening. Attending Bidder(s) & Authorized Representative(s) will have to sign a register evidencing their presence.

In Technical bid opening date, only "Technical RFx" Tab Page will be allowed to be opened by the system. Bidders therefore should ensure that Un-priced Techno-Commercial bid is uploaded under "Technical Attachments" of "RFx Information" Tab Page only.

15.2 In case it happens to be a bundh / holiday, the tender will be opened on the next working day (except Saturday). Accordingly, Bid Closing Date / time will get extended up to the next working day and time (except Saturday).

15.3 Bids which have been withdrawn pursuant to Clause 13.1 will not be allowed to be opened by the system. OIL shall examine bids to determine whether they are complete, whether requisite Bid Securities have been furnished, whether documents have been properly signed and whether the bids are generally in order.

15.4 OIL shall prepare, for its own records, minutes of bid opening including the information disclosed to those present in accordance with the sub-clause 15.3

15.5 To assist in the examination, evaluation and comparison of bids, normally no clarifications shall be sought from the Bidders. However, for assisting in the evaluation of the bids especially on the issues where the Bidder confirms compliance in the evaluation and contradiction exists on the same issues due to lack of required supporting documents in the Bid (i.e. document is deficient or missing), or due to some statement at other place of the Bid (i.e. reconfirmation of confirmation) or vice versa, clarifications may be sought by OIL at its discretion. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

15.6 Prior to the detailed evaluation, OIL will determine the substantial responsiveness of each bid to the requirement of the Bidding Documents. For purpose of these paragraphs, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bidding Document without material deviations or reservation. A material deviation or reservation is one which affects in any way substantial way the scope, quality, or performance of work, or which limits in any substantial way, in-consistent way with the bidding documents, the Company's right or the bidder's obligations under the contract, and the rectification of which deviation or reservation would affect unfairly the competitive position of other bidders presenting substantial responsive bids. OIL's determination of bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence.

15.7 A Bid determined as not substantially responsive will be rejected by the Company and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

15.8 The Company may waive minor informality or nonconformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver, does not prejudice or affect the relative ranking of any Bidder.

16.0 OPENING OF PRICED BIDS:

16.1 Company will open the Priced Bids of the techno-commercially qualified Bidders on a specific date in presence of representatives of the qualified bidders. The techno-commercially qualified Bidders will be intimated about the Priced Bid Opening Date & Time in advance. In case of any unscheduled holiday or Bandh on the Priced Bid Opening Date, the Bids will be opened on the next working day.

16.2 The Company will examine the Price quoted by Bidders to determine whether they are complete, any computational errors have been made, the documents have been properly signed, and the bids are generally in order.

16.3 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price (that is obtained by multiplying the unit price and quantity) the unit price shall prevail and the total price shall be corrected accordingly. If there is a discrepancy between words, and figures, the amount in words will prevail. If any Bidder does not accept the correction of the errors, their Bid will be rejected.

17.0 EVALUATION AND COMPARISON OF BIDS:

17.1 OIL will evaluate and compare the bids as per Bid Evaluation Criteria (BEC) of the bidding documents.

17.2 DISCOUNTS / REBATES: Unconditional discounts / rebates, if any, given in the bid or along with the bid will be considered for evaluation.

17.3 Post bid or conditional discounts / rebates offered by any bidder shall not be considered for evaluation of bids. However, if the lowest bidder happens to be the final

acceptable bidder for award of contract, and if they have offered any discounts / rebates, the contract shall be awarded after taking into account such discounts / rebates.

17.4 Conditional bids are liable to be rejected at the discretion of the Company.

18.0 CONTACTING THE COMPANY:

18.1 No Bidder shall contact OIL on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded except as required by OIL vide sub-clause 15.5.

18.2 An effort by a Bidder to influence OIL in the bid evaluation, bid comparison or Contract award decisions may result in the rejection of their bid.

19.0 AWARD CRITERIA:

19.1 OIL will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and as per the terms of the BEC/BRC, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

20.0 OIL' S RIGHT TO ACCEPT OR REJECT ANY BID:

20.1 OIL reserves the right to accept or reject any or all bids and to annul the bidding process and reject all bids, at any time prior to award of contract, without thereby incurring any liability to the affected bidder, or bidders or any obligation to inform the affected bidder of the grounds for OIL's action.

21.0 NOTIFICATION OF AWARD:

21.1 Prior to the expiry of the period of bid validity or extended validity, OIL will notify the successful Bidder in writing by registered letter or by cable or telex or fax or e-mail (to be confirmed in writing by registered / couriered letter) that its bid has been accepted.

21.2 The notification of award will constitute the formation of the Contract.

22.0 SIGNING OF CONTRACT:

22.1 The successful bidders(s) shall be notified by the Company of its intention to enter into an Agreement with him/her/them on the basis of his/her/their acceptance of the offer. Such notification shall be treated as a "Letter of Award (LOA)".

22.2 Within 2 Weeks from the date of issue of Letter of Award (LOA), the successful Bidder(s) will be required to pay an interest free Performance Security by way of Bank Guarantee (in specified format) favouring "OIL INDIA LIMITED" payable at "NOIDA / DELHI" from any Scheduled Indian Bank. Upon furnishing of the Performance Security, the successful Bidder(s) will be required to enter into a formal Service Agreement within 30 (thirty) days of issue of Letter of Award (LOA) based on the instant tender on the OIL Standard forms of agreement.

22.3 This Performance Security must be valid for 90 days beyond defect liability period. In the event of contract being extended within the provisions of the contract agreement, the contractor will have to extend suitably the validity of the "Security Deposit" for the extended period.

22.4 The Bank Guarantee towards Performance Security issued by the Bank must be routed through SFMS platform as per following details:

(i) MT 760 / MT 760 COV for issuance of Bank Guarantee
(ii) MT 760 / MT 767 COV for amendment of Bank Guarantee.

The above message / intimation shall be sent through SFMS by the BG issuing Bank branch to HDFC Bank, E 13/29, 2nd Floor, Harsha Bhavan, Middle Circle, Connaught Place, New Delhi - 110001, IFS Code : HDFC0000003; BIC Code (Swift): HDFCINBB

The copy of the SFMS message as sent by the issuing bank branch shall be submitted along with the original bank guarantee.

22.5 The "Performance Security" will be refunded to the contractor not later than 30 days following its expiry, but part or whole of which shall be used by the Company in realisation of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason.

22.6 Failure of the successful bidders to comply with the conditions as specified in Para 22.2 above would render him liable for rejection ~~and in turn forfeiture of Bid Security~~ apart from any other actions the Company may take against him at its sole discretion. The party shall also be debarred for a period of 2(two) years or for a period as mentioned in OIL's Banning Policy dated 6th January, 2017 from the date of default.

23.0 PROVISION FOR ACTION IN CASE OF ERRING / DEFAULTING AGENCIES:

Action against erring and defaulting agencies like bidder, contractor, supplier, vendor, service provider will be as per OIL's Banning Policy dated 6th January, 2017 available in OIL's website www.oil-india.com

24.0 SPECIFICATIONS:

Before submission of Bids, Bidders are requested to make themselves fully conversant with all Conditions of the Bid Document and other relevant information related to the works/services to be executed under the contract.

25.0 In all Domestic / National Competitive tenders, only Class-I local suppliers and Class-II local suppliers shall be eligible to bid.

[Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50% as defined in PP-LC policy; Class-II local supplier': means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under PP-LC policy]

26.0 Upon award of Contract based on PP-LC policy, the bidder shall have to submit additional Bank Guarantee (format enclosed as **Proforma-XV**) equivalent to the amount of Performance Security towards fulfillment of conditions pertaining to Local Contents in accordance with the value mentioned in the certificate of LC.

27.0 Along with the Un-Priced Techno-Commercial bid, bidders must submit duly filled undertaking as per format provided vide **Proforma-I** as undertaking towards submission of authentic information/documents.

(END OF SECTION–II)

BID EVALUATION CRITERIA (BEC) / BID REJECTION CRITERIA (BRC)

The bid shall conform generally to the specifications and terms and conditions given in the Bid Documents. Bids will be rejected in case services offered do not conform to the required parameters stipulated in the technical specifications. Not-withstanding the general conformity of the bid to the stipulated specifications, the following mandatory requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected. All the documents related to BEC/BRC must be submitted along with the Un-Priced Techno-Commercial Bid.

1.0 BASIC ELIGIBILITY CRITERIA:

1.1 The bidder must be incorporated/constituted in India and must maintain more than 20% local content (LC) for the offered services to be eligible to bid against this tender.

Regarding calculation of local content and submission of documents during bidding & execution of contracts, provision of Purchase preference policy linked with Local Content (PP-LC) notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17.11.2020 by-MoPNG (including subsequent amendments thereof, if any) shall be applicable.

If such local content is not maintained during execution of contract, OIL reserves the right to invoke the Performance Securities submitted by the bidding and supporting companies, in addition to resorting to other options as may be deemed appropriate.

Whether or not the bidders want to avail PP-LC benefit against this tender, it is mandatory for them to meet the following at the bidding stage:

(a) The bidder must provide the **percentage (%) of local content** in their bid, without which the bid shall be summarily rejected being non-compliant.

(b) The Bidder shall submit an undertaking, from their authorised signatory having the Power of Attorney, along with the bid specifying the LC Percentage and such undertaking shall become part of the contract, if awarded [Format enclosed as **Proforma-V**].

(c) The aforesaid undertaking of the bidder shall also be supported by a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) giving the percentage of local content.

(d) Bidder to submit a copy of their Certificate of Incorporation/ registration in India.

2.0 TECHNICAL CRITERIA:

2.1 Technical Requirements: The bidder should have experience of having successfully executed at least one (01) SIMILAR WORK of minimum value **Rs. 11,55,76,000.00 (Rupees Eleven Crore Fifty-Five Lakh Seventy-Six Thousand only)** for any Central /State Govt. Organization or Central/State Public Sector Units (PSU) or Autonomous bodies or Public Listed Company or Private Limited Company in previous 7(seven) years reckoned from the original bid closing date.

Notes to Clause 2.1 above:

A. SIMILAR WORK means Construction of Multi-Storied (Minimum G+2) RCC Framed Structure of Residential / Non-residential buildings including services like Electrification, Interior work, Plumbing & Sanitary work, Water Supply, Drainage, Road/Approach works. Annual Maintenance contracts for civil / electrical works will not be considered for the purpose of consideration of SIMILAR WORK.

B. For proof of work experience of SIMILAR WORK the bidder must submit copies of contract document or work order documents issued by Central /State Govt. Organization or Central/State Public Sector Units (PSU) or Autonomous bodies or Public Listed Company or Private Limited Company showing details of work along with Completion Certificates or payment certificates along with the Bid.

C. If the prospective bidder is executing SIMILAR WORK which is still running and the contract value / quantity executed prior to original bid closing date is equal to or more than the minimum prescribed value in the BEC/BRC, such experience will also be taken into consideration provided that the bidder has submitted satisfactory service execution certificate issued by end user.

D. SIMILAR WORK executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC/BRC.

E. Bids from Consortium and Joint Venture (JV) are not permitted against this tender.

F. In case the quantum (value) of experience as per the Job Completion Certificate(s) submitted along with the bid are in currencies other than INR, the bidder shall have to convert the figures in equivalent INR considering the prevailing conversion rate on the date of completion of the job as per the Job Completion Certificate(s). A CA Certificate (with Valid UDIN) is to be submitted by the bidder regarding converted figures in equivalent INR. Else, the quantum of experience shall be evaluated by considering the BC selling rate declared by State Bank of India (on the date of completion of the job as per the Job Completion Certificate(s)) for conversion to INR.

2.2 Bidder shall submit a Certificate of Site Visit failing which his bid will be liable to be rejected.

2.3 **Financial Requirements**:

2.2.1 Annual Financial Turnover of the bidder during any of preceding three financial / accounting years from the original bid closing date should be at least **Rs. 5,77,88,000.00 (Rupees Five Crore Seventy-Seven Lakh Eighty-Eight Thousand only)**

2.2.2 Net worth of bidder should not be less than **Rs. 1,73,37,000.00 (Rupees One Crore Seventy-Three Lakh Thirty-Seven Thousand only)** for preceding financial/ accounting year.

Note: Net worth shall mean: "Share capital + Reserves created out of profits and securities Premium - account (excluding re-valuation reserves) – deferred expenditure - Miscellaneous Expenditure to the extent not written off and carried forward Loss - Reserves created out of write back of depreciation and amalgamation".

2.2.3 **Working Capital Requirement:** The Working Capital of the Bidder must be at least **Rs. 1,73,37,000.00 (Rupees One Crore Seventy-Three Lakh Thirty-Seven Thousand only)** as per the immediate preceding audited financial result to be considered from the original Bid Closing Date (BCD). In case the Working Capital is short the bidder can supplement the same through line of credit from a scheduled commercial bank having Net Worth more than INR 100 Crore as per enclosed format (**Proforma-III**).

In addition to above the bidder should submit a financial resource/cash flow plan for execution of this contract.

Working Capital shall mean "Current Assets minus Current liabilities" as per latest year's audited consolidated annual Financial Statements.

2.2.4 Bid Capacity: The bidding capacity of the contractor should be equal to or more than **Rs. 11,55,76,000.00 (Rupees Eleven Crore Fifty-Five Lakh Seventy-Six Thousand only).**

The bidding capacity shall be worked out by the following formula:

Bidding Capacity = [A x 1.5] - B

Where,

A = Maximum annual turnover in any one of the preceding three financial years

B = Commitments in next twelve months from the date of expiry of the bid validity as per **Proforma-IV**.

2.2.5 Debt Equity Ratio: Debt equity ratio of the bidder should not be more than 2:1 as per immediate preceding audited financial year result. Debt equity ratio shall mean long term Borrowings/ Net-worth.

Notes to Clause 2.3 above:

I. For proof of Annual Turnover, Net worth, Working Capital, Bid Capacity & Debt-Equity Ratio any one of the following documents/ photocopies must be submitted along with the bid:-

(i) Audited Balance Sheet along with Profit & Loss account.

OR

(ii) A certificate issued by a practicing Chartered / Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover, Net worth, Working Capital, Bid Capacity & Debt-Equity Ratio as per format prescribed in **Proforma-III**.

II. Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth, Bid Capacity, Debt to Equity Ratio etc. of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that 'the balance sheet/Financial Statements for the financial year _____ has actually not been audited so far' as per format prescribed in **Proforma-VII**.

III. In case the bidder is a Central Govt. organization / PSU /State Govt. organization / Semi-State Govt. Organization or any other Central / State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidences for the same.

IV. Mention of UDIN (Unique Document Identification Number) is mandatory for all Certificates including audited financial statement/audited report issued by Chartered Accountant in Practice w.e.f. February 1, 2019.

2.4 While submitting his bid, bidder will have to provide categorical confirmation to below requirements; otherwise his bid will be rejected.

In the event of award, the contractor (if having a CC/OD facility with any bank) shall open a project specific CC/OD account with a bank with whom it has 10% or more

of aggregate exposure (sanctioned fund based and non-fund based credit facilities) to the banking system, located in the vicinity where the project is executed. In case the contractor is not having a CC/OD facility with any bank, they may open a current account with full operating facilities as per RBI guidelines. The contractor shall deposit an amount equal to 10% of the annualised contract value within 15 days from the date of issue of LOA. All payments against the contract shall be remitted to the project specific account. Any withdrawal from this account shall be only after the first payment against the contract is made by OIL. At any point of time, the minimum balance after first remittance by OIL against invoice from the contractor shall remain 5% of the annualised contract value.

3.0 COMMERCIAL CRITERIA:

3.1 The bids are to be submitted in **single stage under 2 (two) bid system** i.e. Un-priced Techno-Commercial Bid and Price Bid together. Only the Price Bid should contain the quoted price.

3.2 The price quoted by the successful bidder must be firm during the performance of the contract and not subject to variation on any account except as mentioned in the bid document. Any bid submitted with adjustable price quotation other than the above will be treated as non-responsive and rejected.

3.3 Bid Security is not applicable against this tender. However, bidders shall submit along with their bid a signed "Bid Securing Declaration" (**Proforma-XIII**) accepting that, if they withdraw or modify their bids during the period of validity; or if they are awarded the contract and they fail to sign the contract; or if they fail to submit performance security before the deadline defined in the NIT; they will be suspended for the period of two years. This suspension of two years shall be automatic without conducting any enquiry.

3.4 Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable. Bid made by parties who have not been allowed to participate against the tender will be rejected.

3.5 Any bid received in the form of Physical document/Fax/E-mail will not be accepted.

3.6 Bids shall be typed or written in indelible ink. The bidder or his authorized representative shall sign the bid digitally, failing which the bid will be rejected.

3.7 The bid and all attached documents should be digitally signed by the bidder using **Digital Certificate Class III [Organization] along with Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India before bid is uploaded. Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name** are not acceptable.

3.8 Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by bidder, in which case such corrections shall be initiated by the persons(s) signing (digitally) the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.

3.9 Any bid containing false statement will be rejected and action will be taken by Company as per Bid Document.

3.10 Bidders must quote clearly and strictly in accordance with the price schedule outlined in Bidding Format attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal; otherwise the bid will be rejected. All other techno-commercial documents to be submitted with Techno-Commercial Bid as per tender requirement in "**Technical Attachments**" area under "**RFx Information**" tab.

3.11 Bidder must accept and comply with the following provisions as given in the Tender Document in toto, failing which offer will be rejected:

(i) Firm price
(ii) EMD / Bid Bond
(iii) Period of validity of Bid
(iv) Price Schedule
(v) Performance Bank Guarantee / Security deposit
(vi) Delivery / Completion Schedule
(vii) Scope of work
(viii) Guarantee of material / work
(ix) Liquidated Damages clause
(x) Tax liabilities
(xi) Arbitration / Resolution of Dispute Clause
(xii) Force Majeure
(xiii) Applicable Laws
(xiv) Specifications
(xv) Integrity Pact
(xvi) Any other condition specifically mentioned in the tender documents elsewhere that non-compliance of the clause lead to rejection of the bid.

3.12 There should not be any indication of price in the Un-priced Techno-Commercial Bid. A bid will be straightway rejected if this is given in the Un-priced Techno-Commercial Bid.

3.13 The Integrity Pact is applicable against this tender. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide "Section-VI- Integrity Pact" of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.

3.14 Bid received with validity of offer less than 120 (one hundred twenty) days from the original bid closing date will be rejected.

4.0 GENERAL:

4.1 In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw / modify the deviation when / as advised by company. The loading so done by the company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BEC/BRC.

4.2 To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be will be evaluated based on the submission. However, mere submission of such clarification shall not make the offer responsive, unless company is satisfied with the substantial responsiveness of the offer.

4.3 If any of the clauses in the BRC contradict with other clauses of bidding document elsewhere, the clauses in the BRC shall prevail.

4.4 Bidder(s) must note that requisite information(s)/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise Bids shall be rejected.

4.5 The originals of such documents [furnished by bidder(s)] shall have to be produced by bidder(s) to OIL as and when asked for.

5.0 Bidders are required to quote for all the items as per Bidding Format, otherwise the offer of the bidder will be straightway rejected. Offer should be inclusive of any Tax, Duty, etc., as applicable.

6.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.

7.0 The quantities shown against each item in the Bidding Format shall be considered for the purpose of Bid Evaluation. It is, however, to be clearly understood that the assumptions made in respect of the quantities of various items in the price bidding format are only for the purpose of evaluation of the bid and the Contractor will be paid on the basis of the actual consumption.

8.0 Price Bids of only techno-commercially qualified bidders will be evaluated on overall lowest cost basis (L-1 offer) i.e. considering total quoted price for all items inclusive of all liabilities including statutory liabilities as per Bidding Format.

9.1 Price Bid uploaded without giving any of the details of the taxes (Including rates and amounts) will be considered as inclusive of all taxes including GST.

9.2 When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by OIL on the Purchase Order/Contracts will be binding on the bidder.

10.0 **Discount**: Bidders are advised not to indicate any separate discount. Discount if any, should be merged with the quoted price. Discount of any type indicated separately will not be taken into account of evaluation purposes. However, in the event such offer without considering discount is found to be successful, OIL shall avail such discount at the time of award of contract.

11.0 Based on the evaluation of techno-commercially qualified bidders whose bids have been found to be substantially responsive, the job will be awarded to the techno-commercially qualified L-1 bidder. A substantially responsive bid is one that meets the terms and conditions of the Tender and / or the acceptance of which bid will not result in indeterminate liability on OIL.

12.0 In case of identical overall lowest offered rate by more than 1 (one) techno-commercially qualified bidder, OIL reserves the right to select the successful bidder by draw of lot between the parties offering the same overall lowest price.

13.0 Purchase Preferences allowed as per Government Guidelines in Vogue and PPP [Public Procurement policy] for Micro and Small Enterprises is not applicable for this tender (being works contract tender).

14.0 **Purchase Preference Policy (Linked with Local Content) (PP-LC)**:

(a) Purchase Preference Policy- Linked with Local Content (PP-LC) as notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17th November, 2020 of Ministry of

Petroleum and Natural Gas (MoPNG) shall be applicable in this tender. Bidders to check the provisions of the Notification for their eligibility to bid and seek benefits for Purchase preference, accordingly. Purchase preference will be applicable as per the Notification(s) and any amendment thereof.

(b) Bidders seeking benefits, under Purchase Preference Policy (linked with Local Content) (PP-LC) shall have to comply with all the provisions of the notification no. FP- 20013/2/2017-FP-PNG dated 17th November, 2020 or subsequent amendments, if any.

(c) The work to be carried out against this tender is non-divisible.

(d) (i) In case participating Class-I local supplier quote price within price band of L1+20%, such Class-I local supplier shall be considered for award of contract subject to matching their price with natural L1 bidder in a situation where L1 price is from a Class-II local supplier as defined in the policy.

(ii) In case of more than one such Class-I local supplier are found to be within the price band of L1+20%, opportunity for price matching with natural L1 bidder shall be given on ascending order of inter-se ranking of price (L2, L3, ...) and the lowest eligible Class-I local supplier consenting to match their price with the natural L1 bidder shall be considered for award of contract in a situation where L1 price is from a Class-II local supplier as defined in the policy.

15.0 Third Party Inspection:

15.1 Oil India Limited (OIL) has engaged the following 09 (Nine) Independent Inspection Agencies to verify and certify various documents required against BEC/BRC of the tender:

Sl. No.	Name of Independent Inspection Agency	Contact E-mail ID
i.	M/s. RINA India Pvt. Ltd.	a. ssd@rina.org b. Andrea.Vattuone@rina.org
ii.	M/s. Dr. Amin Controllers Pvt. Ltd.	a. rkjain@rcaindia.net b. info@rcaindia.net
iii.	M/s. Germanischer Llyod Industrial Services GmbH (DNV GL- Oil & Gas)	a. mangesh.gaonkar@dnvgl.com
iv.	M/s. TÜV SÜD South Asia Pvt. Ltd.	a. Jaimin.Bhatt@tuv-sud.in b. sanjaykumar.singh@tuv-sud.in c. Pankaj.Narkhede@tuv-sud.in d. Ajit.Yadav@tuv-sud.in
v.	M/s. IRCLASS Systems and Solutions Private Limited	a. abhishek.singh@irclass.org b. pradeep.bansal@irclass.org c. Asim.Hajwani@irclass.org d. Amit.Ketkar@irclass.org e. industrial_services@irclass.org
vi.	M/s. Gulf Llyods Industrial Services (India) Pvt. Ltd.	a. contact@gulflloyds.com b. bbhavsar@gulfllyods.com c. inspection@gulflloyds.com d. gulflloyds.india@gmail.com
vii.	M/s. TUV India Private Limited	a. salim@tuv-nord.com b. delhi@tuv_nord.com

Sl. No.	Name of Independent Inspection Agency	Contact E-mail ID
viii.	M/s. TÜV Rheinland (India) Pvt. Ltd.	a. Shailesh.Deotale@ind.tuv.com b. ravi.kumar@ind.tuv.com c. rupeshkumar.singh@ind.tuv.com d. Neeraj.Chaturvedi@ind.tuv.com
ix.	M/s. Bureau Veritas (India) Private Limited	a. udit.chopra@bureauveritas.com b. vishal.sapale@bureauveritas.com c. dinesh.sukhramani@bureauveritas.com d. p.sridhar@bureauveritas.com e. hariprasad.jhawar@bureauveritas.com f. amit.shaw@bureauveritas.com g. business.support@bureauveritas.com h. labhanshu.sharma@bureauveritas.com i. pramodkumar.yadav@bureauveritas.com j. sonal.lad@bureauveritas.com k. bvindia.corporate@in.bureauveritas.com

15.2 The Bidders have to get verified and certified the various documents required against BEC/BRC of the tender by any one of the above Independent Inspection Agenciesand submit the duly certified Inspection Certificate as per **Proforma-VIII** by the Inspection Agencies along with the Technical Bid of the Tender. All Charges of the Third- Party Independent Inspection Agencies towards verification of bidder's documents and certification thereof shall be borne by the respective bidders and payments on account of above inspection, verification and certification shall be made directly by the Bidder to theInspection Agency(s). OIL will not be responsible for any payment dispute betweenBidders and Third Party Inspection Agencies.

15.3 As mentioned above, Bidder(s) have to submit the verified documents along with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. **However, in case a bidder submits its bid along with all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening**. Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verified copies/verification certificate within 07 (Seven) days of bid opening at its own risk and responsibility.

15.4 The methodology of inspection/ verification of documents is broadly as under but not limited to:

(a) It is obligatory on the part of the interested Bidders, who choose to participate against the tender, to understand the tender requirements in entirety and the requisite documents sought for in support of the Bid Evaluation Criteria/Bid Rejection Criteria (BEC/BRC) mentioned in the tender in particular. The Bidder must produce all the appropriate documents before any of the OIL's empanelled third party certifying agencies for verification/certification. Neither OIL nor the third party certifying agency shall be held accountable in any manner regarding the choice of documents by the bidder for verification. Therefore, getting the appropriate documents inspected/verified by the agency in support of BEC/BRC clauses is the sole responsibility of the Bidder. `

(b) The prospective bidder shall contact any of the empaneled inspection agencies. The agency shall go through the Tender Document, especially the requirements of BEC/BRC and list the documents to be verified. They shall depute their

qualified/competent inspector to the Bidder's premises to check the original documents and certify the copies which the bidder shall submit along with their bids. OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification of documents by OIL's empanelled third party agency shall not automatically make the bidder eligible for award of contract.

(c) Verification of documents (but not limited to) are normally categorized as under:

- **General Requirement:**
  - Check Bidder's PAN Card
  - Check Bidder's GST Certificate
  - Check ITR of company
  - Check Bidder's Certificate of Incorporation – Domestic Bidder.

- **Additional Documents: (If applicable against the tender)**
  - Joint Ventures Agreements – To cross-check with JV Partners
  - Consortium Agreements – To cross-check with Consortium Partners
  - Holding/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary Company –To check the Share Holding pattern

- **Technical Criteria**
  - To check Experience Proof- Completion Certificates, Reference contact verification, Original Work Order/Contract Copy and any other document(s), if called for vide BEC/BRC of the Tender.

- **Financial Criteria**
  - Check and verify Audited Balance Sheet/CA certificate
  - To check the Line of Credit, if incorporated in the tender.

Note: If any documents LOI/LOA/Contracts etc. are submitted towards BEC/BRC experience criteria issued by Oil India Limited, such documents need not be verified by TPI agency.

16.0 OTHER CONFIRMATIONS FROM BIDDER:

While submitting bid, bidder will have to provide categorical confirmation to the requirements mentioned below; otherwise bid will be rejected:

16.1 The successful Bidder shall open a Project Specific Account (for details Ref. Clause 2.4 (Financial Requirements above)) wherein all receipts and payments in respect of the Contract are to be routed through this account only.

16.2 The RA bills of the contractor will be processed when the monthly bank account statement is submitted to OIL along with the bill and it is established that the withdrawn money has been utilized only for the project work. Along with each RA bill the Contractor will have to submit the proof of payments being made to its sub-vendors and sub-contractors.

16.3 If during the course of the project execution, it is established that the project progress is getting affected due to non-payment Construction Contractor to its sub-vendors and sub-contractors than OIL will have the right to make direct payments to these sub-vendors and sub-contractors from Construction Contractor RA bill final payable amount (after effecting statutory deductions as applicable) at total and risk and cost of Construction Contractor.

16.4 The bidder will not be able to use this account for entering into any type of mortgage/loan/factoring arrangement with other financial institutions during the course of the contract execution with OIL without the written consent of OIL.

17.0 COMPLIANCE OF THE COMPETITION ACT, 2002: The bidder shall strictly comply with the provisions of the Competition Act, 2002, more particularly, Section-3 of the Act. Any violation the provisions of the Act shall attract penal action under the Act.

(END OF SECTION–III)

GENERAL CONDITIONS OF CONTRACT

1.0 DEFINITIONS:

Following terms and expressions shall have the meaning hereby assigned to them unless the context otherwise requires:

1.1 'Contract' means the terms and conditions contained in the document entitled "**Construction of Training Center cum Holiday Home at Britonia, Porvorim, Goa including all amenities, other ancillary services complete in all respect**" and the attached exhibits. In the event of any conflict between the text of the contract and the exhibits, the text of the Contract shall have precedence over the exhibits.

1.2 'Contractor' means the individual or firm or body incorporated performing the work under this contract.

1.3 'Company' means OIL INDIA LIMITED (OIL) and its executors, successors, administrators and assignees.

1.4 The 'Work' means each and every activity required for the successful performance of the services described under this contract.

1.5 Here 'Operating Area' means Operational Area under OIL's Corporate Office, Noida.

1.6 'Services' means the work specified and all other obligations to be complied with by Contractor pursuant to and in accordance with the terms of this contract.

1.7 'Site' means the land and other places, on, under, in or through which the works are to be executed by the Contractor and any other land and places provided by the Company for working space or any other purpose as designated hereinafter as forming part of the Site.

1.8 'Contract Price' means the price payable to the Contractor under the contract for the full and proper performance of its contractual obligations.

1.9 'Contractor's personnel' means the personnel as required to be provided by Contractor from time to time for execution of this contract.

1.10 'Company Representative' means the person or persons appointed and approved in writing from time to time by the Company to act on its behalf for overall co-ordination.

2.0 EFFECTIVE DATE, DATE OF COMMENCEMENT OF THE CONTRACT, MOBILISATION TIME, DATE OF COMMENCEMENT OF THE WORK AND DURATION OF CONTRACT:

2.1 **Effective Date, Date of Commencement of the Contract:** The contract shall become effective as of the date Company notifies Contractor in writing (through Letter of Award) that it has been awarded the contract. Such date of notification of award of Contract will be the Effective Date of Contract as well as the Date of Commencement of the Contract.

2.2 **Mobilisation Time, Date of Commencement of the Work:** Contractor must mobilise his men, materials, equipment and be ready to commence work within 30 (thirty) days from date of issue of Work Order / notification to commence work by OIL, which shall be considered as the Mobilisation Time. The date on which the mobilisation is complete and the contractor is ready to commence work or 30 (thirty) days from date of issue of Work Order / notification to commence work by OIL, whichever is earlier, shall be the Date of Commencement of the Work.

2.2 **Duration of Contract**: As defined in Scope of Work and Special Terms & Conditions.

3.0 CONTRACTOR'S PERSONNEL:

3.1 Contractor's Personnel - Contractor warrants that it shall provide all manpower for the necessary operations, supervision and execution of all works under this Contract to Company's satisfaction. The personnel to be deployed by the Contractor must be competent and sufficiently experienced to perform the works correctly and efficiently except where otherwise stated.

3.2 Except as otherwise hereinafter provided, the selection, replacement and remuneration of Contractor's personnel shall be determined by Contractor. Such employees shall be the employees solely of Contractor. Contractor shall ensure that its personnel will be competent and efficient.

3.3 Replacement of Contractor's Personnel- Contractor will immediately remove and replace any of the Contractor's personnel, who in the opinion of Company, is incompetent, or negligent or of unacceptable behaviour or whose employment is otherwise considered by Company to be undesirable.

4.0 GENERAL OBLIGATIONS OF CONTRACTOR:

4.1 It is expressly understood that Contractor is an independent entity and that neither it nor its employees and its sub-contractors, if any are employees or agents of Company. Company is authorised to designate its representative, who shall at all time have access to the related equipment and all records, for the purposes of observing, inspecting and designating the work to be performed hereunder by Contractor. The Contractor may treat Company's representative for the time being at site as being in-charge of all Company's and Company designated personnel at site. The Company's representative may, amongst other duties, observe, test, check the work performed by Contractor.

4.2 Compliance with Company's Instructions: - Contractor shall comply with all instructions of Company consistent with the provision of this Contract and perform the works described in the Terms of reference/Scope of Work.

4.3 Contractor shall perform all other obligations, work and services which are required by the terms of this contract or which reasonably can be implied from such terms as being necessary for successful and timely execution of the work.

4.4 Contractor shall be deemed to have satisfied itself before submitting its bid as to the correctness and sufficiency of its bid for the services required and of the rates and prices quoted, which rates and prices shall, except insofar as otherwise provided herein, cover all its obligations under the contract.

4.5 Contractor shall give or provide all necessary supervision during the performance of the services and as long thereafter as Company may consider necessary for the proper fulfilling of contractor’s obligations under the contract.

5.0 GENERAL OBLIGATIONS OF COMPANY:

5.1 Company shall, in accordance with and subject to the terms and conditions of the Contract, pay Contractor for its full and proper performance of obligations as per provision of this contract.

5.2 Allow Contractor and its employees to access, subject to normal security and safety procedures, to all areas of Company as required for orderly performance of the work.

6.0 PAYMENT TERMS:

6.1 No advance payment will be made against this contract.

6.2 Payment will be made on monthly basis within 30 days from the date receipt of the undisputed bills of the Contractor. Payments shall also be subject to TDS and other deductions, if any.

6.3 Request for payment/part payment to third party i.e. other than the party on whom the contract has been awarded will not be entertained by OIL under any circumstances. The offers stipulating payment/part payment to such third party will be considered as non-responsive and such offers will be rejected.

6.4 All payments due by Company to Contractor shall be made at Contractor's designated bank. All bank charges will be to Contractor's account.

6.5 Payment of any invoices shall not prejudice the right of company to question the validity of any charges therein, provided company within one year after the date of payment shall make and deliver to contractor written notice of objection to any item or items the validity of which Company questions.

7.0 TAXES AND DUTIES:

7.1 Tax levied on Contractor as per the provisions of Indian Income Tax Act and any other enactment/rules on income derived/payments received under the contract will be on Contractor's account.

7.2 Contractor shall be responsible for payment of personal taxes, if any, for all the personnel deployed in India by Contractor.

7.3 The Contractor shall furnish to the Company, if and when called upon to do so, relevant statement of accounts or any other information pertaining to work done under the contract for submitting the same to the Tax authorities, on specific request from them in accordance with provisions under the law. Other than the information provided by the Contractor, the Contractor shall not be responsible for any inaccurate information provided by the Company to the Tax authorities and the Company shall indemnify the Contractor for all claims, expenses, costs or losses of any nature arising from such inaccuracy. Contractor shall be responsible for preparing and filing the return of income etc. within the prescribed time limit to the appropriate authority.

7.4 Prior to start of operations under the contract, the Contractor shall furnish the Company with the necessary documents, as asked for by the Company and/ or any other information pertaining to the contract, which may be required to be submitted to the Income Tax authorities at the time of obtaining "No Objection Certificate" for releasing payments to the Contractor.

7.5 Corporate income tax will be deducted at source from the invoice at the specified rate of income tax as per the provisions of Indian Income Tax Act as may be in force from time to time and Company will issue TDS Certificate to the Contractor as per the provisions of Income Tax Act.

7.6 Corporate and personnel taxes on Contractor shall be the liability of the Contractor and the Company shall not assume any responsibility on this account.

7.7 All local taxes, levies and duties, sales tax, octroi, etc. on purchases and sales made by Contractor (except customs duty) shall be borne by the Contractor.

7.8 GST: The price excludes GST and the GST as applicable shall be to the Company account. The GST amount on the taxable part of the services provided by the Contractor shall be paid by the Company as per provisions of the GST Act. However, the liability for payment of the GST to the appropriate authority in case of Indian bidders and/or overseas bidders having registered office establishment in India will lie on the Contractor. In case of foreign Contractor who does not have registered office establishment in India, the GST shall be paid to the tax authorities by the Company, on behalf of such contractor.

8.0 GOODS AND SERVICES TAX

8.1 **GENERAL REMARKS ON TAXES & DUTIES:**

In view of **GST** Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST/VAT, Service tax, Entry Tax and other indirect taxes and duties have been submerged in **GST**. Accordingly reference of Excise Duty, Service Tax, VAT, Sales Tax, Entry Tax or any other form of indirect tax except of **GST** mentioned in the bidding document shall be ignored.

8.2 Bidders are required to submit copy of the GST Registration Certificate while submitting the bids wherever **GST** (CGST & SGST/UTGST or IGST) is applicable.

8.3 "**GST**" shall mean Goods and Services Tax charged on the supply of material(s) and services. The term "**GST**" shall be construed to include the Integrated Goods and Services Tax (hereinafter referred to as "IGST") or Central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and Services Tax (hereinafter referred to as "SGST") or Union Territory Goods and Services Tax (hereinafter referred to as "UTGST") depending upon the import / interstate or intrastate supplies, as the case may be. It shall also mean GST compensation Cess, if applicable.

8.4 Quoted price/rate(s) should be inclusive of all taxes and duties, except **GST(i.e. IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra state supply respectively and cess on GST if applicable) on the final service**. However, GST rate (including cess) to be provided in the respective places in the Price Bid. Please note that the responsibility of payment of GST (CGST & SGST or IGST or UTGST) lies with the Supplier of Goods /Services (Service Provider) only. Supplier of Goods / Services (Service Provider) providing taxable service shall issue an Invoice/ Bill, as the case may be as per rules/ regulation of **GST**. Further, returns and details required to be filled under GST laws & rules should be timely filed by Supplier of Goods / Services (Service Provider) with requisite details.

8.5 Bidder should also mention the **Harmonised System of Nomenclature** (HSN) and **Service Accounting Codes (SAC)** at the designated place in SOR.

8.6 **Where the OIL is entitled to avail the input tax credit of GST**:

8.6.1 OIL will reimburse the **GST** to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of GST to enable OIL to claim input tax credit of **GST** paid. In case of any variation in the executed quantities, the amount on which the **GST** is applicable shall be modified in same proportion. Returns and details required to be filled under GST laws & rules should be timely filed by supplier with requisite details.

8.6.2 The input tax credit of **GST** quoted shall be considered for evaluation of bids, as per evaluation criteria of tender document.

8.7 **Where the OIL is not entitled to avail/take the full input tax credit of GST**:

8.7.1 OIL will reimburse **GST** to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of **GST** subject to the ceiling amount of **GST** as quoted by the bidder. In case of any variation in the executed quantities (If directed and/or certified by the In-Charge) the ceiling amount on which **GST** is applicable will be modified on pro-rata basis.

8.7.2 The bids will be evaluated based on total price including **GST**.

8.8 Payments to Service Provider for claiming **GST** amount will be made provided the above formalities are fulfilled. Further, OIL may seek copies of challan and certificate from Chartered Accountant for deposit of **GST** collected from OIL.

8.9 Contractor/vendor shall be required to issue tax invoice in accordance with GST Act and/or Rules so that input credit can be availed by OIL. In the event that the contractor

/ vendor fails to provide the invoice in the form and manner prescribed under the GST Act read with GST Invoicing Rules there under, OIL shall not be liable to make any payment on account of **GST** against such invoice.

8.10 **GST** shall be paid against receipt of tax invoice and proof of payment of **GST** to government. In case of non-receipt of tax invoice or non-payment of **GST** by the contractor/vendor, OIL shall withhold the payment of **GST**.

8.11 **GST** payable under reverse charge mechanism for specified services or goods under GST act or rules, if any, shall not be paid to the contractor/vendor but will be directly deposited to the government by OIL.

8.12 Where OIL has the obligation to discharge **GST** liability under reverse charge mechanism and OIL has paid or is /liable to pay **GST** to the Government on which interest or penalties becomes payable as per GST laws for any reason which is not attributable to OIL or ITC with respect to such payments is not available to OIL for any reason which is not attributable to OIL, then OIL shall be entitled to deduct/ setoff / recover such amounts against any amounts paid or payable by OIL to Contractor / Supplier.

8.13 Notwithstanding anything contained anywhere in the Agreement, in the event that the input tax credit of the **GST** charged by the Contractor / Vendor is denied by the tax authorities to OIL for reasons attributable to Contractor / Vendor, OIL shall be entitled to recover such amount from the Contractor / Vendor by way of adjustment from the next invoice. In addition to the amount of **GST**, OIL shall also be entitled to recover interest at the rate prescribed under GST Act and penalty, in case any penalty is imposed by the tax authorities on OIL.

8.14 TDS under GST, if applicable, shall be deducted from contractor's/vendor's bill at applicable rate and a certificate as per rules for tax so deducted shall be provided to the contractor/vendor.

8.15 The Contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the Contractor shall avail and pass on benefits of all exemptions/concessions available under tax laws.Any error of interpretation of applicability of taxes/ duties by the contractor shall be to contractor's account.

8.16 It is the responsibility of the bidder to quote the correct GST rate. The classification of goods/services as per GST (Goods & Service Tax) Act should be correctly done by the contractor to ensure that input tax credit on GST (Goods & Service Tax) is not lost to the OIL on account of any error on the part of the contractor.

8.17 In case, the quoted information related to various taxes, duties & levies subsequently proves wrong, incorrect or misleading, OIL will have no liability to reimburse the difference in the duty/ tax, if the finally assessed amount is on the higher side and OIL will have to right to recover the difference and in case the rate of duty/ taxes finally assessed is on the lower side.

8.18 Notwithstanding anything mentioned elsewhere in the Bidding Document the aggregate liability of OIL towards Payment of Taxes & Duties shall be limited to the volume of GST declared by the bidder in its bid & nothing shall be payable extra except for the statutory variation in taxes & duties.

8.19 Further, it is the responsibility of the bidders to make all possible efforts to make their accounting/IT system GST compliant in order to ensure availability of Input Tax Credit (ITC) to Oil India Ltd.

8.20 GST liability, if any on account of supply of free samples against any tender shall be to bidder's account.

8.21 In case of statutory variation in **GST,** other than due to change in turnover, payable on the contract value during contract period, the Supplier of Goods/ Services (Service Provider) shall submit a copy of the 'Government Notification' to evidence the rate as applicable on the Bid due date and on the date of revision.

Beyond the contract period, in case OIL is not entitled for input tax credit of **GST**, then any increase in the rate of **GST** beyond the contractual delivery period shall be to Service provider's account whereas any decrease in the rate **GST** shall be passed on to the OIL.

Beyond the contract period, in case OIL is entitled for input tax credit of **GST**, then statutory variation in applicable **GST** on supply and on incidental services, shall be to OIL's account.

Claim for payment of **GST**/ Statutory variation, should be raised within two [02] months from the date of issue of 'Government Notification' for payment of differential (in %) **GST**, otherwise claim in respect of above shall not be entertained for payment of arrears.

The base date for the purpose of applying statutory variation shall be the Bid Opening Date.

8.22 The contractor will be liable to ensure to have registered with the respective tax authorities, wherever applicable and to submit self-attested copy of such registration certificate(s) and the Contractor will be responsible for procurement of material in its own registration (GSTIN) and also to issue its own Road Permit/ E-way Bill, if applicable etc.

8.23 In case the bidder is covered under Composition Scheme under GST laws, then bidder should quote the price inclusive of the GST (CGST & SGST/UTGST or IGST). Further, such bidder should mention "Cover under composition system" in column for GST (CGST & SGST/UTGST or IGST) of price schedule.

8.24 OIL will prefer to deal with registered supplier of goods/ services under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST while evaluation of bid. Where OIL is entitled for input credit of GST, the same will be considered for evaluation of bid as per evaluation methodology of tender document.

8.25 Procurement of Specific Goods: Earlier, there is no tax incidence in case of import of specified goods (i.e. the goods covered under List-34 of Customs Notification no. 12/2012-Cus dated. 17.03.2012 as amended). Customs duty is not payable as per the policy. However, under GST regime, IGST Plus GST compensation cess (if applicable) would be leviable on such imports. Bidders should quote GST as inclusive considering IGST component for the imported Materials portion while quoting their prices on destination basis. However, GST rate to be specified in the price bid format.

8.26 **Documentation requirement for GST**

The vendor will be under the obligation for invoicing correct tax rate of tax/duties as prescribed under the GST law to OIL, and pass on the benefits, if any, after availing input tax credit.

Any invoice issued shall contain the following particulars

a) Name, address and GSTIN of the supplier;
b) Serial number of the invoice;
c) Date of issue;
d) Name, address and GSTIN or UIN, if registered of the recipient;

e) Name and address of the recipient and the address of the delivery, along with the State and its code,
f) HSN code of goods or Accounting Code of services[SAC];
g) Description of goods or services;
h) Quantity in case of goods and unit or Unique Quantity Code thereof;
i) Total value of supply of goods or services or both;
j) Taxable value of supply of goods or services or both taking into discount or abatement if any;
k) Rate of tax (IGST,CGST, SGST/ UTGST, cess);
l) Amount of tax charged in respect of taxable goods or services (IGST,CGST, SGST/UTGST, cess);
m) Place of supply along with the name of State, in case of supply in the course of interstate trade or commerce;
n) Address of the delivery where the same is different from the place of supply and
o) Signature or digital signature of the supplier or his authorised representative.
p) GST invoice shall be prepared in triplicate, in case of supply of goods, in the following manner
   i) The original copy being marked as ORIGINAL FOR RECIPIENT;
   ii) The duplicate copy being marked as DUPLICATE FOR TRANSPORTER and
   iii) The triplicate copy being marked as TRIPLICATE FOR SUPPLIER.

In case of any advance given against any supplies contract, the supplier of the goods shall issue Receipt Voucher containing the details of details of advance taken along with particulars as mentioned in clause no. (a), (b), (c), (d), (g), (k), (l), (m) & (o) above.

8.27 **Anti-profiteering clause**

As per Clause 171 of GST Act it is mandatory to pass on the benefit due to reduction in rate of tax or from input tax credit to the consumer by way of commensurate reduction in prices. The Supplier of Goods / Services may note the above and quote their prices accordingly.

8.27.1 In case the GST rating of vendor on the GST portal / Govt. official website is negative / black listed, then the bids may be rejected by OIL. Further, in case rating of bidder is negative / black listed after award of work for supply of goods / services, then OIL shall not be obligated or liable to pay or reimburse GST to such vendor and shall also be entitled to deduct / recover such GST along with all penalties / interest, if any, incurred by OIL.

9.0 INSURANCE:

9.1 The Contractor shall arrange insurance to cover all risks in respect of their personnel, materials and equipment(except when tools/equipment are below Rotary Table or in the well bore) belonging to the Contractor or its subcontractor (if applicable) during the currency of the contract including the third party items/consumables. For materials/equipment belong to the Contractor or its sub-contractor, Contractor may self-insure the same.

9.2 Contractor shall at all time during the currency of the contract provide, pay for and maintain the following insurances amongst others except when tools/equipment are below Rotary Table or in the well bore:
a) Workmen compensation insurance as required by the laws of the country of origin of the employee.
b) Employer's Liability Insurance as required by law in the country of origin of employee.
c) General Public Liability Insurance or Comprehensive General Liability insurance covering liabilities including contractual liability for bodily injury, including death of persons, and liabilities for damage of property. This insurance must cover all operations of Contractor required to fulfil the provisions under this contract.
d) Contractor's equipment used for execution of the work hereunder shall have an insurance cover with a suitable limit (as per international standards) except when

tools / equipment are below Rotary Table or in the well bore or Contractor may self-insure its tools/ equipment.

e) Automobile Public Liability Insurance covering owned, non-owned and hired automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits as governed by Indian Insurance regulations.

f) Public Liability Insurance as required under Public Liability Insurance Act 1991, if applicable.

9.3 Any deductible set forth in any of the above insurance shall be borne by Contractor.

9.4 Contractor shall furnish to Company prior to commencement date, certificates of all its insurance policies covering the risks mentioned above.

9.5 If any of the above policies expire or are cancelled during the term of this contract and Contractor fails for any reason to renew such policies, then the Company will renew/replace same and charge the cost thereof to Contractor. Should there be a lapse in any insurance required to be carried out by the Contractor for any reason whatsoever, loss/damage claims resulting there from shall be to the sole account of Contractor.

9.6 Contractor shall require all of his sub-Contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub-Contractors.

9.7 All insurance taken out by Contractor or their sub-contractor shall be endorsed to provide that the underwriters waive their rights of recourse on the Company and to the extent of the liabilities assumed by Contractor under this Contract.

9.8 Contractor shall obtain additional insurance or revise the limits of existing insurance as per Company's request in which case additional cost shall be to Contractor's account.

10.0 STATUTORY OBLIGATIONS OF CONTRACTOR:

10.1 The Contractor shall comply with all the statutory obligation of Government of India and State applicable at the Site and the Purchaser shall not be liable for any action of the statutes applicable due to non-fulfilment of statutory obligations by the contractor.

10.2 The Contractor shall give all notices and pay all fees required to be given or paid under any Central or State statute, ordinance or other law or any regulation or by-law of any local or other duly constituted authority in relation to the execution of the Work.

10.3 The Contractor shall conform and comply in all respects with the provisions of any statute, ordinance or laws as aforesaid and the rules, regulations or by-laws of any local or other duly constituted authority which may be applicable to the works or to any temporary works and with such rules and regulations of public bodies as aforesaid and shall indemnify the Purchaser against all penalties and liabilities of every kind for breach of any such statute, ordinance, law, rule, regulation or by-law.

11.0 SUBSEQUENTLY ENACTED LAWS:

11.1 In the event of introduction of any new legislation or any change or amendment or enforcement of any Act or Law, rules or regulations of Government of India or State Government(s) or Public Body which becomes effective after the date of submission of Price Bid or revised price bid, if any, for this CONTRACT and which results in increased/decreased cost of the works under the CONTRACT through increased/decreased liability of taxes, (other than personnel and Corporate taxes), duties, the Parties shall agree to a revision in pricing to reflect such change subject to the production of documentary proof to the satisfaction of the COMPANY/CONTRACTOR as applicable to the extent which directly is attributable to

such introduction of new legislation or change or amendment as mentioned above and adjudication by the competent authority (applicable when disputed by COMPANY) & the courts wherever levy of such taxes/duties are disputed by COMPANY/CONTRACTOR.

11.2 Any increase in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date during the extended period will be to the contractor's account, where delay in completion/mobilization period is attributable to the CONTRACTOR. However, any decrease in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date will be to COMPANY's account.

11.3 The Contract Price and other prices given in the Schedule of Prices are based on the applicable tariff as indicated by the CONTRACTOR in the Schedule of Prices. In case this information subsequently proves to be wrong, incorrect or misleading, COMPANY will have no liability to reimburse/pay to the CONTRACTOR the excess duties, taxes, fees, if any finally levied/imposed by the concerned authorities. However, in such an event, COMPANY will have the right to recover the difference in case the rate of duty/tax finally assessed is on the lower side.

11.4 Notwithstanding the provision contained in clause 11.1 to 11.2 above, the COMPANY shall not bear any liability in respect of:

i. Personal taxes on the personnel deployed by CONTRACTOR, his sub-contractor /sub-sub-contractors and Agents etc.
ii. Corporate taxes and Fringe benefit tax in respect of contractor and all of their sub-contractors, agents etc.
iii. Other taxes & duties including Customs Duty, Excise Duty and Service Tax in addition to new taxes etc. in respect of sub-contractors, vendors, agents etc. of the CONTRACTOR.

11.5 In order to ascertain the net impact of the revisions/enactment of various provisions of taxes/duties, the CONTRACTOR is liable to provide following disclosure to COMPANY:

i. Details of each of the input services used in relation to providing service to COMPANY including estimated monthly value of input service and service tax amount.
ii. Details of Inputs (material/consumable) used/required for providing service to Company including estimated monthly value of input and excise duty/CVD paid/payable on purchase of inputs.

12.0 LIQUIDATED DAMAGES FOR DEFAULT IN TIMELY COMPLETION OF WORKS AND SERVICES:

12.1 In normal case of works /service contracts, if the delay in completion is due to default on the contractor's part the Total Contract price shall be reduced by 0.5% of the total Contract Price per complete week of delay or part thereof subject to a maximum of 7.5% of the Total Contract Price, by way of liquidated damages for delay and not as penalty. Liquidated damages will be reckoned from the stipulated date of completion defined in the contract. Company may without prejudice to any other right or remedy available to it to recover damages for breach of contract, recover the liquidated damages as above from the Contractor. This is an agreed genuine pre-estimate of damages duly agreed by the parties.

12.2 The Company also reserves the right to cancel the Contract without any compensation whatsoever in case of failure by the Contractor to commence operation within the stipulated period.

13.0 WAIVERS AND AMENDMENTS:

13.1 It is fully understood and agreed that none of the terms and conditions of the Contract shall be deemed waived or amended by either party unless such waiver or amendment is executed in writing by the duly authorized agents or representatives of such party. The failure of either party to execute any right of termination shall not act as a waiver or amendment of any right of such party provided hereunder.

13.2 Any delay in exercising and any omission to exercise any right, power or remedy exercisable by the Company under this contract shall not impair such right, power or remedy nor shall any waiver by the Company of any breach by the Contractor of any provision of this contract prevent the subsequent enforcement of that provision by the Company or be deemed a waiver by the Company of any subsequent breach by the Contractor.

14.0 CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION:

14.1 Contractor shall not, without Company's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing pattern, sample or information furnished by or on behalf of Company in connection therewith, to any person other than a person employed by Contractor in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance with prior permission from Company. However, nothing hereinabove contained shall deprive the Contractor of the right to use or disclose any information:

(a) which is possessed by the Contractor, as evidenced by the Contractor's written records, before receipt thereof from the Company which however the Contractor shall immediately inform to Company ; or

(b) which is required to be disclosed by the Contractor pursuant to an order of a court of competent jurisdiction or other governmental agency having the power to order such disclosure, provided the Contractor uses its best efforts to provide timely notice to Company of such order to permit Company an opportunity to contest such order subject to prior permission from Company.

14.2 Contractor shall not, without Company's prior written consent, make use of any document or information except for purposes of performing the contract.

14.3 Any document supplied to the Contractor in relation to the contract other than the Contract itself remain the property of Company and shall be returned (in all copies) to Company on completion of Contractor's performance under the Contract if so required by Company.

14.4 During this Contract, Company and its employees, agents, other contractors, sub-contractors (of any tier) and their employees etc. may be exposed to certain confidential information and data of the Contractor. Such information and data shall held by the Company, its employees, agents, other contractors, sub-contractors (of any tier) and their employees in the strictest Confidence and shall not be disclosed to any other party except on a need to know basis.

14.5 However, the above obligation shall not extend to information which:

i) is, at the time of disclosure, known to the public which Contractor shall immediately inform Company ;
ii) is lawfully becomes at a later date known to the public through no fault of Contractor subject to Contractor's undertaking that no information has been divulged by them to the public;
iii) is lawfully possessed by Contractor before receipt thereof from Company which should be immediately informed to Company;
iv) is developed by Contractor independently of the information disclosed by Company which should be shared with the Company;

v) Contractor is required to produce before competent authorities or by court order subject to prior permission from Company

15.0 NOTICES:

15.1 Any notice given by one party to other, pursuant to the Contract shall be sent in writing or by Fax or E-mail and confirmed in writing to the applicable address specified below:

Company **Contractor**

a) **For contractual matters**
Chief General Manager (C&P)
Oil India Limited
Plot No. 19, Sector-16 A, NOIDA-201 301
Tel: 0120-2419129
E-mail: anitadam@oilindia.in

b) **For matters relating to Scope of Work**
Deputy General Manager (Civil)
Oil India Limited
Plot No. 19, Sector-16 A, NOIDA-201 301
Tel: 0120-2419081
E-mail: dcbharali@oilindia.in

15.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

16.0 HEADINGS:

The headings of the clauses of the Contract are for convenience only and shall not be used to interpret the provisions hereof.

17.0 ASSIGNMENT AND SUB–LETTING:

The whole of the work included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or sublet the Contract or any part or share thereof / interest therein without the written consent of Oil India Limited. No undertaking shall relieve the Contractor from the full and entire responsibility.

18.0 FORCE MAJEURE:

18.1 In the event of either Party being rendered unable by 'Force Majeure' to perform any obligation required to be performed by them under the contract, the relative obligation of the Party affected by such 'Force Majeure' will stand suspended as provided herein. The word 'Force Majeure' as employed herein shall mean acts of God, war, revolt, agitation, strikes, riot, fire, flood, sabotage, civil commotion, road barricade (but not due to interference of employment problem of the Party) and any other cause, whether of kind herein enumerated or otherwise which are not within the control of the Party to the contract and which renders performance of the contract by the said Party impossible.

18.2 Upon occurrence of such cause and upon its termination, the Party alleging that it has been rendered unable as aforesaid thereby, shall notify the other Party in writing within Seventy Two (72) hours of the alleged beginning and ending thereof, giving full particulars and satisfactory evidence in support of its claim.

18.3 Should 'Force Majeure' condition as stated above occurs and should the same be notified within seventy two (72) hours after its occurrence, either Party will have the right to terminate the contract with prior written notice if such 'Force Majeure' condition continues beyond consecutive ten (10) days. Should both Parties decide not to terminate the contract even under such condition, no payment would apply during the force majeure period unless otherwise agreed to.

19.0 TERMINATION:

19.1 **TERMINATION ON EXPIRY OF THE TERMS (DURATION)**:
This contract shall be deemed to have been automatically terminated on the expiry of duration of the contract or extension, if any, thereof.

19.2 **TERMINATION ON ACCOUNT OF FORCE MAJEURE**:
Either party shall have the right to terminate this Contract on account of 'Force Majeure' as set forth in Para 18.0.

19.3 **TERMINATION ON ACCOUNT OF INSOLVENCY**:
In the event that the Contractor at any time during the term of this Contract, becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt, then the Company shall, by a notice in writing have the right to terminate this Contract and all the Contractor's rights and privileges hereunder, shall stand terminated forthwith.

19.4 **TERMINATION FOR UNSATISFACTORY PERFORMANCE**:
If the Company considers that, the performance of the Contractor is, not as per the scope of the work as specified in the contract, the Company shall notify the Contractor in writing and specify in details the cause. The Company shall have the option to terminate this Contract by giving 15 days' notice in writing to the Contractor, if Contractor fails to comply with the requisitions contained in the said written notice issued by the Company.

19.5 **TERMINATION DUE TO CHANGE OF OWNERSHIP & ASSIGNMENT**:
In case the Contractor's rights and / or obligations under this Contract and/or the Contractor's rights, title and interest to the equipment/material, are transferred or assigned without the Company's consent, the Company may at its absolute discretion, terminate this Contract.

19.6 **CONSEQUENCES OF TERMINATION**:
In all cases of termination herein set forth, the relative obligations of the parties to the Contract shall be limited to the period up to the date of termination. Notwithstanding the termination of this Contract, the parties shall continue to be bound by the provisions of this Contract that reasonably require some action or forbearance after such termination.

19.7 Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the Company on giving 30 (thirty) days written notice to the Contractor due to any other reason not covered under the above clause from 19.1 to 19.6 and in the event of such termination the Company shall not be liable to pay any cost or damage to the Contractor except for payment for services as per the Contract upto the date of termination including the De-mob cost, if any.

19.8 Upon termination of this Contract, Contractor shall return to Company all of Company's items, which are at the time in Contractor's possession.

19.9 In the event of termination of contract, Company will issue Notice of termination of the contract with date or event after which the contract will be terminated. The contract shall then stand terminated and the Contractor shall demobilize their personnel & materials.

20.0 APPLICABLE LAW:

20.1 The Contract shall be deemed to be a Contract made under, governed by and construed in accordance with the laws of India for the time being in force and shall be subject to the exclusive jurisdiction of Courts situated in New Delhi.

20.2 The Contractor shall ensure full compliance of various Indian Laws and Statutory Regulations, to the extent applicable, as stated below, but not limited to, in force from

time to time and obtain necessary permits/licenses etc. from appropriate authorities for conducting operations under the Contract:

a) The Mines Act - as applicable to safety and employment conditions.
b) The Minimum Wages Act, 1948.
c) The Oil Mines Regulations, 1984.
d) The Workmen's Compensation Act, 1923.
e) The Payment of Wages Act, 1963.
f) The Payment of Bonus Act, 1965.
g) The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under.
h) The Employees Pension Scheme, 1995.
i) The Interstate Migrant Workmen Act., 1979 (Regulation of employment and conditions of service).
j) The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
k) Goods & Services Tax (GST) Law and the Acts and rules framed thereunder.
l) Customs & Excise Act & Rules
m) Environment Protection Act
n) Public Liability Act
o) Any other law and regulations applicable to carry out the complete job/assignment as per the Contract.

21.0 LIABILITY:

21.1 Except as otherwise expressly provided, neither Company nor its servants, agents, nominees, Contractors, or subcontractors shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss of or damage to the property of the Contractor and or his Contractors or subcontractors, irrespective of how such loss or damage is caused and even if caused by the negligence of Company and/or its servants, agents, nominees, assignees, Contractors and subcontractors. The Contractor shall protect, defend, indemnify and hold harmless Company from and against such loss or damage and any suit, claim or expense resulting there from.

21.2 Neither Company nor its servants, agents, nominees, assignees, Contractors, sub-contractors shall have any liability or responsibility whatsoever for injury to, illness, or death of any employee of the Contractor and / or of its Contractors or subcontractors irrespective of how such injury, illness or death is caused and even if caused by the negligence of Company and/or its servants, agents, nominees, assignees, contractors and sub-contractors. Contractor shall protect, defend, indemnify and hold harmless Company from and against such liabilities and any suit, claim or expense resulting there from.

21.3 The Contractor hereby agrees to waive its right to recourse and further agrees to cause his underwriters to waive their right of subrogation against Company and/or its underwriters, servants, agents, nominees, assignees, contractors and subcontractors for loss or damage to the equipment of the Contractor and/or its subcontractors when such loss or damage or liabilities arises out of or in connection with the performance of the Contract.

21.4 The Contractor hereby further agrees to waive its right of recourse and agrees to cause its under writers to waive their right of subrogation against Company and/or its underwriters, servants, agents, nominees, assignees, contractors and subcontractors for injury to, illness or death of any employee of the contractor and of its contractors, subcontractors and / or their employees when such injury, illness or death arises out of or in connection with the performance of the Contract.

21.5 Except as otherwise expressly provided, neither Contractor nor its servants, agents, nominees, contractors or subcontractors shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss or damage to the property of the Company and/or his contractors or subcontractors,

irrespective of how such loss or damage is caused and even if caused by the negligence of Contractor and / or its servants, agents, nominees, assignees, contractors and subcontractors. The Company shall protect, defend, indemnify and hold harmless Contractor from and against such loss of damage and any suit, claim or expense resulting therefrom.

21.6 Neither Contractor nor its servants, agents, nominees, assignees, contractors, subcontractors shall have any liability or responsibility whatsoever to whomsoever or injury to, illness, or death of any employee of the Company and/or of its contractors or subcontractors irrespective of how such injury, illness or death is caused and even if caused by the negligence of contractor and/or its servants, agents, nominees, assignees, contractors and subcontractors Company shall protect, defend indemnify and hold harmless contractor from and against such liabilities and any suit, claim or expense resulting therefrom.

21.7 The Company agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against contractor and / or its underwriters, servants, agents, nominees, assignees, contractors and subcontractors for loss or damage to the equipment of Company and/or its contractors or subcontractors when such loss or damage or liabilities arises out of or in connection with the performance of the Contract.

21.8 The Company hereby further agrees to waive its right of recourse and agrees to cause its underwriters to waive their right of subrogation against contractor and / or its underwriters, servant, agents, nominees, assignees, contractors and subcontractors for injury to, illness or death of any employee of the Company and of its contractors, subcontractors and/or their employees when such injury, illness or death arises out of or in connection with the performance of the contract.

21.9 LIMITATION OF LIABILITY:
Notwithstanding any other provisions except only in cases of willful misconduct and / or criminal acts,
(a) Neither the Contractor nor the Company (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs.
(b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the Contractor in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract price, provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the Contractor, or to any obligation of the Contractor to indemnify the Company with respect to Intellectual Property Rights.

Company shall indemnify and keep indemnified Contractor harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.

22.0 CONSEQUENTIAL DAMAGE:

22.1 Neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the contract, including but without limitation, to loss of profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub-contractors.

23.0 WITH-HOLDING:

23.1 Company may with-hold or nullify the whole or any part of the amount due to Contractor on account of subsequently discovered evidence in order to protect Company from loss on account of:
a) For non-completion of jobs assigned as per Section-V.
b) Contractor's indebtedness arising out of execution of this contract.

c) Defective work not remedied by Contractor.
d) Claims by sub-contractor of Contractor or others filed or on the basis of reasonable evidence indicating probable filing of such claims against Contractor.
e) Failure of Contractor to pay or provide for the payment of salaries / wages, contributions, unemployment, compensation, taxes or enforced savings with-held from wages etc.
f) Failure of Contractor to pay the cost of removal of unnecessary debris, materials, tools, or machinery.
g) Damage to another Contractor of Company.
h) All claims against Contractor for damages and injuries, and / or for non-payment of bills etc.
i) Any failure by Contractor to fully reimburse Company under any of the indemnification provisions of this contract. If, during the progress of the work Contractor shall allow any indebtedness to accrue for which Company, under any circumstances in the opinion of Company may be primarily or contingently liable or ultimately responsible and Contractor shall, within five days after demand is made by Company, fail to pay and discharge such indebtedness, then Company may during the period for which such indebtedness shall remain unpaid, withhold from the amounts due to Contractor, a sum equal to the amount of such unpaid indebtedness.
j) With-holding will also be effected on account of the following:
i. Garnishee order issued by a Court of Law in India.
ii. Income-tax deductible at source according to law prevalent from time to time in the country.
iii. Any obligation of Contractor which by any law prevalent from time to time to be discharged by Company in the event of Contractor's failure to adhere to such laws.
iv. Any payment due from Contractor in respect of unauthorised imports.

23.2 When all the above grounds for with-holding payments shall be removed, payment shall thereafter be made for amounts so with-held.

23.3 Notwithstanding the foregoing, the right of Company to withhold shall be limited to damages, claims and failure on the part of Contractor which is directly / indirectly due to some negligent act or omission on the part of Contractor relating to the Contractor's obligation on the Contract.

24.0 INDEMNITY AGREEMENT:

24.1 Except as provided hereof Contractor agrees to protect, defend, indemnify and hold the Company and its co-leases harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of Contractor's employees, agents, contractors and sub-contractors or their employees on account of bodily injury or death of personnel, or damage to properly as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

24.2 Except as provided hereof the Company agrees to protect, defend, indemnify and hold Contractor harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of Company's employees, agents, contractors and sub-contractors or their employees on account of bodily injury or death of personnel, or damage to properly as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

25.0 INDEMNITY APPLICATION: The indemnities given herein above, whether given by Company or Contractor shall be without regard to fault or to the negligence of either party even though said loss, damage, liability, claim, demand, expense, cost or cause of action may be caused, occasioned by or contributed to by the negligence, either sole or concurrent of either party.

26.0 MISCELLANEOUS PROVISIONS:

26.1 Contractor shall give notices and pay all fees at their own cost required to be given or paid by any National or State Statute, Ordinance, or other Law or any regulation, or bye-law of any local or other duly constituted authority as may be in force from time to time in India, in relation to the performance of the services and by the rules & regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the services.

26.2 Contractor shall conform in all respects with the provisions of any Statute, Ordinance of Law as aforesaid and the regulations or bye-law of any local or other duly constituted authority which may be applicable to the services and with such rules and regulation public bodies and Companies as aforesaid and shall keep Company indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance or Law, regulation or bye-law.

26.3 During the tenure of the Contract, Contractor shall keep the site where the services are being performed reasonably free from all unnecessary obstruction and shall store or dispose of any equipment and surplus materials and clear away and remove from the site any wreckage, rubbish or temporary works no longer required. On the completion of the services, Contractor shall clear away and remove from the site any surplus materials, rubbish or temporary works of every kind and leave the whole of the site clean and in workmanlike condition to the satisfaction of the Company.

26.4 Key personnel cannot be changed during the tenure of the Contract except due to sickness/death/resignation of the personnel in which case the replaced person should have equal experience and qualification, which will be again subject to approval, by the Company.

27.0 EMPLOYMENT OF OFFICIAL/PERSONNEL OF THE COMPANY:

27.1 Contractors are advised not to employ serving Company employees without its prior permission. It is also advised not to employ ex-personnel of the Company within the initial two years period after their retirement/resignation/severance from service without specific permission of the Company. Company may decide not to deal with such firm(s) / Contractors who fail to comply with the advice.

28.0 SET OFF:

Any sum of money due and payable to the Contractor (including security Deposit refundable to them) under this or any other contract may be appropriated by the Company and set off against any claim of the Company (or such other person or persons contracting through the Company) for payment of a sum of money arising out of this contract or under any other contract made by the Contractor / with the Company (or such other person or persons contracting through the Company).

29.0 SETTLEMENT OF DISPUTES AND ARBITRATION:

29.1 **ARBITRATION (APPLICABLE FOR SUPPLIERS/CONTRACTORS OTHER THAN PSU):**

Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, the same shall be referred to Arbitration as provided hereunder:

a) A party wishing to commence arbitration proceeding shall invoke Arbitration Clause by giving 30 days notice to the other party. The notice invoking arbitration shall specify all the points of dispute with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. If the claim is in foreign currency, the claimant shall indicate its value in Indian Rupee for the purpose of constitution of the arbitral tribunal.

b) The number of arbitrators and the appointing authority will be as under:

Claim amount (excluding claim for interest and counter claim, if any)	**Number of Arbitrator**	**Appointing Authority**
Upto Rs. 5 Crore	Sole Arbitrator	OIL
Above Rs. 5 Crore	3 Arbitrators	One Arbitrator by each party and the 3rd Arbitrator, who shall be the presiding Arbitrator, by the two Arbitrators.

c) The parties agree that they shall appoint only those persons as arbitrators who accept the conditions of the arbitration clause. No person shall be appointed as Arbitrator or Presiding Arbitrator who does not accept the conditions of the arbitration clause.

d) Parties agree that there will be no objection if the Arbitrator appointed holds equity shares of OIL and/or is a retired officer of OIL/any PSU. However, neither party shall appoint its serving employees as arbitrator.

e) If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left if both parties consent for the same; otherwise, he shall proceed de novo.

f) Parties agree that neither shall be entitled for any pre-reference or pendente-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void.

g) The arbitral tribunal shall make and publish the award within time stipulated as under:

Amount of Claims and counter claims(excluding interest)	Period for making and publishing of the award(counted from the date of first meeting of the Arbitrators)
Upto Rs. 5 Crore	Within 8 months
Above Rs. 5 Crore	Within 12 months

The above time limit can be extended by Arbitrator, for reasons to be recorded in writing, with the consent of the other parties.

h) If after commencement of the arbitration proceedings, the parties agree to settle the dispute mutually or refer the dispute to conciliation, the arbitrators shall put the proceedings in abeyance until such period as requested by the parties.

i) Each party shall be responsible to make arrangements for the travel and stay etc. of the arbitrator pointed by it. Claimant shall also be responsible for making arrangements for travel/stay arrangements of the Presiding Arbitrator and the expenses incurred shall be shared equally by the parties.

In case of sole arbitrator, OIL shall make all necessary arrangements for his travel, stay and the expenses incurred shall be shared equally by the parties.

j) The Arbitration shall be held at Noida / Delhi. However, parties to the contract can agree for a different place for the convenience of all concerned.

k) The Arbitrator(s) shall give reasoned and speaking award and it shall be final and binding on the parties.

l) Subject to aforesaid, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

m) The venue of all arbitrations under 29.1 will be Noida / Delhi. The award made in pursuance thereof shall be binding on the parties.

29.2 **ARBITRATION CLAUSE FOR SETTLEMENT OF COMMERCIAL DISPUTES BETWEEN CENTRAL PUBLIC SECTOR ENTERPRISES (CPSES} INTER SE AND CPSE(S} AND GOVERNMENT DEPARTMENT(S}/ORGANIZATIONS(S} - ADMINISTRATIVE MECHANISM FOR RESOLUTION OF CPSES DISPUTES (AMRCD}:**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in OPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018.

30.0 CHANGES:

30.1 During the performance of the work, Company may make minor change to take care of any supplementary work within the general scope of this Contract including, but not limited to, changes in methodology, and minor additions to or deletions from the work to be performed. Contractor shall perform the work as changed. Changes of this nature will be affected by written order by the Company.

30.2 If any change result in an increase in compensation due to Contractor or in a credit due to Company, Contractor shall submit to Company an estimate of the amount of such compensation or credit in a form prescribed by Company. Such estimates shall be based on the rates shown in the Schedule of Rates (Section V). Upon review of Contractor's estimate, Contractor shall establish and set forth in the Change Order the amount of the compensation or credit for the change or a basis for determining a reasonable compensation or credit for the change. If Contractor disagrees with compensation or credit set forth in the Change Order, Contractor shall nevertheless perform the work as changed, and the parties will resolve the dispute in accordance with Clause 27.0 hereinabove. Contractor's performance of the work as changed will not prejudice Contractor's request for additional compensation for work performed under the Change Order.

31.0 ROYALITY AND PATENTS:

Each party shall hold harmless and indemnify the other from and against all claim and proceedings for or on account of any patent rights, design, trade mark or other protected rights arising from any use of materials, equipment, processes, inventions and methods which have not been imposed on the attending party by the terms of the contract or the specifications or drawings forming part thereof.

32.0 PROVISION FOR ACTION IN CASE OF ERRING / DEFAULTING AGENCIES:

Action against erring and defaulting agencies like bidder, contractor, supplier, vendor, service provider will be as per OIL's Banning Policy dated 6th January, 2017 available in OIL's website www.oil-india.com

33.0 PERFORMANCE SECURITY:

The Contractor has furnished Performance Security for an amount of Rs. _____ (Rupees _____) [*Not to be filled up by while submitting the Bid. This will be filled up by OIL subsequent to award of contract to the*

successful bidder] vide Bank Guarantee No. _____ issued by _____ and validity up to _____. The Performance Security shall be valid up to 90 days beyond defect liability period. The performance security shall be payable to Company as compensation for any loss resulting from Contractor's failure to fulfil their obligations under the Contract. In the event of extension of the Contract period, the Contractor shall suitably extend the validity of the Performance Security. The "Performance Security" will be refunded to the contractor not later than 30 days following its expiry, but part or whole of which shall be used by the Company in realisation of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason.

(END OF SECTION–IV)

SCOPE OF WORK AND SPECIAL TERMS & CONDITIONS

PART-A: SPECIAL CONDITIONS OF CONTRACT (SCC)

1.0 DEFINITIONS:

1.1 The expression '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.

1.2 The 'Engineer In-charge' (EIC) shall mean the person designated from time to time by the Company and shall include those who are expressly authorized by the Company to act for and on its behalf as the 'Company Representative' for operation of the Contract.

1.3 The 'Site Engineer' shall mean the person to whom the Engineer-In-Charge entrusts as his authorized representative his responsibility to act on his behalf and perform any or all the functions of the Engineer-In-Charge under the Contract. Engineer-In-Charge can in his own discretion entrust his responsibilities to act on his behalf and perform any or all the functions of the Engineer-In-Charge under the Contract to more than one person (by whatever name designated in Oil India Ltd. like Site Engineer or Project Coordinator etc.). The word 'Site Engineer' in this contract document is applicable to any or all such persons to whom Engineer-In-Charge entrusts his responsibilities for getting the works executed at site through the Contractor.

1.4 'Engineering and Project Management Consultant' (EPMC) is the Consulting Firm which is engaged by the Company for Planning, designing, supervision, quality assurance / quality control and commissioning of the project.

1.5 'Market Rate' shall be the rate as decided by the Engineer-In-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus 15% to cover all overheads and profits.

1.6 'Accepting Authority' shall mean Chief General Manager (C&P) Oil India Limited who shall sign the Contract on behalf of the Company.

1.7 'Schedule' referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the Standard Schedule of Rates, i.e., CPWD Delhi Schedule of Rates 2021 and 2018, with the amendments thereto issued up to the date of receipt of the tender.

1.8 'Schedule of Prices' referred to in these conditions shall mean the Schedule of Quantities & Rates (hereinafter called SoQR) which is the Price Bid of the Contractor duly accepted by the Company.

2.0 GENERAL:

2.1 The Special Terms & Conditions of Contract (hereinafter called SCC) shall be read in conjunction with the General Conditions of Contract (GCC), Schedule of Quantities & Rates (SoQR), Technical Specifications, Drawings and any other document forming part of this Contract wherever the context so requires. Bidders are expected to go through these conditions in SCC and comply with the submittals without fail wherever envisaged at the bidding stage.

2.2 Notwithstanding the sub-division of the document into separate chapters/ sections / volumes, every part shall be deemed to be supplementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.

2.3 Where any portion of the GCC is repugnant to or at variance with any provisions of the SCC, then unless a different intention appears, the provision(s) of the SCC shall be deemed to override the provision(s) of GCC only to the extent that such repugnancies or variations in the SCC are not possible of being reconciled with the provisions of GCC, i.e., the SCC provisions shall be read over and above those enunciated in the GCC.

2.4 Wherever it is stated in this Contract that a supply is to be made or a work is to be carried out, it shall be understood that the same shall be made/carried out by the Contractor at his own cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context. Contract Value shall be deemed to have included such costs and nothing extra shall be payable to the Contractor.

2.5 The materials, design and workmanship shall satisfy the applicable relevant Indian Standards, the job specifications contained herein and codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied. In the absence of any Standard/ Specifications/Codes of practice for detailed specifications covering any part of the work covered in this Contract, the instructions/directions of Engineer-In-Charge will be binding upon the Contractor.

2.6 It will be the Contractor's responsibility to bring to the notice of Engineer-In-Charge any irreconcilable conflict in the Contract documents, before starting the work(s) or making the supply with reference to which the conflict exists.

2.7 In the absence of any specifications covering any material, design or works(s) the same shall be performed/ supplied/ executed in accordance with standard good Engineering practice as per the instructions/directions of Engineer-In-Charge, which will be binding on the Contractor.

2.8 Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

2.9 Headings and Marginal notes to these Special Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

2.10 The Contractor shall be furnished free of cost one certified copy of the Contract documents except CPWD standard specifications, CPWD Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the bid document.

None of these documents shall be used for any purpose other than that of this Contract.

2.11 The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the SoQR shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

2.12 The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices

quoted in the SoQR, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

2.13 The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawings and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

2.14 In the case of discrepancy between the Schedule of Quantities & Rates, the Specifications and/or the Drawings, the following order of preference shall be observed:

i. Description of Schedule of Quantities & Rates (SoQR).
ii. Technical Specifications and Special Conditions/Specifications, if any.
iii. Drawings.
iv. CPWD Specifications.
v. Indian Standard Specifications of BIS.

2.15 If there are varying or conflicting provisions made in any one document forming part of the Contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the Contractor.

2.16 Any error in description, quantity or rate in SoQR or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the Contract.

2.17 On acceptance of the tender, the name of the accredited representative of the Contractor who would be responsible for taking instructions from the Engineer-In-Charge shall be communicated in writing to the Engineer-In-Charge before the Date of Commencement of the work.

2.18 In case the tender for this work includes in addition to building work all other works such as sanitary and water supply installations, drainage installation, electrical work, landscaping work, roads and paths etc., the Contractor must associate himself with agencies of appropriate class/Government Licensed Agencies with prior approval of Engineer-In-Charge.

2.19 No oral representation of any officer, agent, or employee of either the Contractor or Company shall affect, modify, nullify or alter any right or obligation of the Contractor or Company in terms of the Contract unless made in writing and signed by the authorized representative of Company and Contractor as an Agreed Variation.

2.20 The planning, design, engineering and workmanship shall satisfy the relevant Indian & International Standards, specifications and codes. During the excavation/piling of proposed buildings and other ancillary works if any underground water supply, sewer electrical/gas pipeline or other services lines are encountered, the same shall be dismantled and/or realigned by the Contractor at no extra cost. Any salvage useable material shall be the property of the Company and shall be disposed-off as directed by the Engineer-In-Charge. Extension of time may be granted on this ground, in case the works are held-up by more than six (6) working days, for which the commencement and removal of the obstruction/hindrance shall be properly recorded in the Hindrance Register.

3.0 LOCATION:

The Project site is situated on Swami Vivekananda Road at Britonia within the village panchayat of Penha De Franca, Bardez Taluka under Sub-district Ilhas (Survey No.

120/1 part and 120/2 part), Alto Porvorim, Porvorim, Goa - 403521. The latitude and longitude of the site is 15.52080 N & 73.83290 E.

The site is well connected from the Interstate Bus Terminus, which is approx 3km away. The nearest railway station is approx 3km away at Carambolim and Goa International Airport at Dabolim is approx. 30km away. Bidders are advised to visit the site of work, at their own cost, and examine it and its surroundings to collect all information that they consider necessary for proper assessment of the prospective assignment. The costs of visiting the Site shall be at the Bidder's own expense.

4.0 SCOPE OF WORK:

4.1 The scope of work in general includes scope of work specified in various Technical Specifications/ sections provided in the Technical Part, Drawings and Schedule of Quantities & Rates (SoQR) enclosed in the Bid Document. Further, it includes any other work not specifically mentioned but required to complete the work as per specifications, drawings and instructions of Engineer-In-Charge.

4.2 Scope of work shall be read in conjunction with item description of SoQR and drawings, and Contractor's scope shall include all activities of work specified in the item description of SoQR read along with the CPWD Specifications 2019 and the Technical Specifications attached hereto.

4.3 Rates shall include all cost for the performance of the item considering all parts of the Bid Document. In case any activity though specifically not covered in description of item in the SoQR but is required to complete the work which could be reasonably implied/ informed from the content of Bid Document, the cost for carrying out such activity of work shall be deemed to be included in the relevant item rate.

4.4 The general scope of work under this Contract has been described in Annexure – I to SCC and detailed in Technical Part of the Bidding Document. The detailed scope of work/services shall be derived by the Contractor from the various parts of the Bidding Document including addenda/amendment(s) issued.

5.0 SCOPE OF SUPPLY:

5.1 The scope of supply is as mentioned in Scope of Work/ Technical Specifications, and SoQR etc. of Bid Document. All materials, equipments, labour & consumables required for successful completion of work as per the description of item in SoQR shall be supplied by the Contractor and the cost of such supply shall be deemed to be included in the quoted rates without any additional liability on the part of Company except for the material specifically covered under the Company's Scope of Supply. The brief scope of supplies under this Contract has been described in Annexure-II to SCC.

6.0 WORKS CONTRACT:

6.1 The entire work as per Scope of Work covered under this Contract shall be treated as indivisible Works Contract.

7.0 TIME SCHEDULE AND CONSTRUCTION PROGRAMME:

7.1 The Work shall be executed strictly as per time schedule attached as Annexure – III to SCC. The time period of completion includes the time required for entire mobilization, residual design & engineering, if any; constructions as well as testing, rectifications, if any, retesting, demobilization and completion in all respects to the satisfaction of Company/ Engineer-In-Charge.

7.2 The time period of completion of the Works as specified above or the extended time in accordance with these conditions shall be the essence of the Contract. If the Contractor commits default in commencing the execution of the work within the timeline specified at GCC clause-2.2, the Performance Security shall be forfeited by

the Company and shall be absolutely at the disposal of Company without prejudice to any other right or remedy available in law.

7.3 As soon as possible but within 14 (Fourteen) days of award of work, the Contractor shall submit a Construction Programme viz. Time and Progress Chart for each milestone as mentioned in Appendix-1 of Annexure – III to SCC. The Engineer-In-Charge may within 30 days thereafter, if required modify, and communicate the program approved to the Contractor failing which the program submitted by the Contractor shall be deemed to be 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 of the dates of commencement and completion of various activities of the work and may be amended as necessary by agreement between the Engineer-In-Charge and the Contractor within the limitations of time imposed in the Contract documents.

7.4 In case of non-submission of Construction Programme by the Contractor, the program drawn-up, finalized and released by the Engineer-In-Charge shall be deemed to be final and the non-submission shall make the Contractor liable for recovery at the same rates mentioned at sub-clause 7.5 hereinunder. Further, the release by the Engineer-In-Charge of such programme shall not relieve the Contractor of any of the obligations under the Contract.

7.5 The Contractor shall submit the updated Time and Progress Chart along with the monthly progress report using the mutually agreed software or in other format decided by Engineer-In-Charge for the work done during previous month to the Engineer-In-Charge on or before 5th day of each month failing which a recovery of Rs. 2500/ - (for works costing up to Rs. 20 Crores) / Rs. 5000/- (for works costing more than Rs. 20 Crores) shall be made on per week or part thereof basis in case of delay in submission of the monthly progress report.

7.6 Monthly/weekly execution programme will be drawn up by the Engineer-In-Charge jointly with the Contractor based on availability of materials, work fronts and the joint programme of execution as referred to above. The Contractor shall scrupulously adhere to the Targets/ Programmes by deploying adequate personnel, Construction Equipment, Tools and Tackles and also by timely supply of required materials coming within his scope of supply as per Contract. In all matters concerning the extent of target set out in the weekly/monthly programme and the degree of achievement, the decision of the Engineer- In-Charge will be final and binding on the Contractor.

7.7 Time extension for delay: If the work(s) be delayed by:

i) force majeure, or
ii) abnormally bad weather, or
iii) serious loss or damage by fire, or
iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
v) delay on the part of other contractors or tradesmen engaged by the Company in executing work not forming part of the Contract, or
vi) any other cause like above and including Epidemic/Pandemic etc. which, in the reasoned opinion of the Engineer-In-Charge 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 for entry in the hindrance register (physical or web-based as may be decided by the Engineer-In-Charge) but shall nevertheless use constantly his best endeavors 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.

The Contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in this sub-clause.

7.8 In case the work is hindered, by the Company or for any reason / event, for which the Company is responsible, then the Engineer-In-Charge shall, if justified, may consider a fair and reasonable extension of time and reschedule the mile-stones for completion of work. Such extension of time or rescheduling of milestones shall be without prejudice to any other right or remedy of the parties in Contract or in law; provided further that for concurrent delays under this sub-clause and sub- clause 7.7 above to the extent the delay is covered under sub- clause 7.7 the Contractor shall be entitled to only extension of time and no damages.

7.9 Request for rescheduling of Mile-stones or 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 on the prescribed forms, i.e., Form of application by the Contractor for seeking rescheduling of milestones or Form of application by the Contractor for seeking extension of time (Appendix–XVI) respectively to the Engineer-In- Charge. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired.

With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of Contract, the Contractor shall produce a revised programme without causing any delay in execution of the work. A recovery of Rs.5000/- shall be made on per day basis in case of delay in submission of the revised programme by the Contractor.

7.9.1 In any such case the Company may give a fair and reasonable extension of time for completion of work or reschedule the milestones. The Accepting Authority shall finalize/ reschedule a particular milestone before taking an action against subsequent milestone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the Engineer-In-Charge in writing, within 30 days of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the Contractor for extension of time, the Engineer-In-Charge after affording opportunity to the Contractor may give, supported with a programme (as specified under sub-clause 7.9 above), a fair and reasonable extension within a reasonable period of occurrence of the event.

7.10 In case the work is delayed by any reasons, in the opinion of the Engineer-In-Charge, by the Contractor for reasons beyond the events mentioned in clause 7.7 or clause 7.8 and beyond the justified extended date; without prejudice to right to take action for Termination under GCC Clause-19, the Engineer-In-Charge may grant extension of time required for completion of work without rescheduling of milestones. The Contractor shall be liable for levy of Liquidated Damages for delay under GCC for such extension of time.

8.0 WORKING HOURS:

8.1 Contractor shall mobilize sufficient work force, machinery, equipment etc. so as to complete the job by working in normal working hours 9.00AM to 6.00PM (including break for lunch) from Monday to Saturday. However, depending upon the requirement, time schedule/approved program and the target set to complete the job in time, the works may have to continue beyond normal working hours to the extent of round the clock and holidays also, for which no extra claim shall be entertained. Permission to work during extended hours on Contractor's request may be granted by Engineer-In-Charge, depending on the work exigencies, subject to Contractor fulfilling all safety and security norms as directed by the Engineer-In-Charge.

8.2 Contractor shall give everyday category-wise labour and equipment deployment report along with the progress of work done on previous day in the format prescribed by the Engineer-In-Charge.

8.3 Work in Monsoon and Summer: The Contractor must maintain minimum labour force as may be required for the job and plan and execute the construction and erection according to the Construction Programme. No extra rate will be considered such work in monsoon. During monsoon and other period, it shall be the responsibility of the Contractor to keep the construction work site free from water logging at his own cost. During summer heat, the Contractor shall ensure necessary safety measures of the workers against scorching summer heat in the form of loo/heatwave or otherwise.

In case of works stoppage on account of the above, the cause and duration shall be recorded in the Hindrance Register duly countersigned by the Engineer-In-Charge for validation.

9.0 MEASUREMENT OF WORKS:

9.1 Mode of measurement of works will be as specified separately in Annexure-IV to SCC.

10.0 LEADS:

10.1 For the various works, in case of contradiction, leads mentioned in the SoQR shall prevail over those indicated in the Technical Specifications.

11.0 PAYMENT TERMS:

11.1 Payment Terms will be as specified separately in Annexure – V to SCC.

12.0 SECURED ADVANCE ON NON-PERISHABLE MATERIALS:

12.1 Secured Advance will be paid to the Contractor, on signing an indenture in the form in Appendix XVII by the Engineer-In- Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials which are in the opinion of the Engineer-In- Charge non-perishable, non-fragile and non-combustible and are in accordance with the Contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered / deducted from the next payment made under any of the clause or clauses of this Contract.

12.2 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, electrical cable, wires, fitting and fixture items etc.

13.0 SECURITY DEPOSIT:

13.1 No retention money will be deducted from the running bill.

14.0 FIRM PRICES:

14.1 The Quoted price shall remain firm and fixed and valid until completion of the Contract and shall not be subjected to Labour or Material escalation for any reason what so ever.

14.2 The works shall be carried out by the Contractor on item rate basis as incorporated in the SoQR and in conformity with the detailed drawing, scope of work, technical

specifications, special conditions of the tender documents (including any addition/ modification/ alteration/ deletion made from time to time therein found essential for completion of works) for civil, electro-mechanical, PHE and all other works unless otherwise specifically mentioned in the line item.

15.0 ROUNDING OFF:

15.1 All payments to and recoveries from the Contractor shall be rounded off to the nearest Rupee. Wherever the amount to be paid/recovered consists of a fraction of a Rupee (paise), the amount shall be rounded off to the next higher Rupee if the fraction consists of 50 (fifty) paise or more and if the fraction of a Rupee is less than 50 (fifty) paise, the same shall be ignored.

16.0 CONTRACTOR'S COMPUTERISED BILLING SYSTEM:

16.1 All measurements as per the stage payments mentioned in SCC clause 11 (Payment Terms) having financial value shall be entered by the Contractor and compiled in the shape of the Computerized Measurement Book (CMB) having pages of A-4 size as per the format of the Company so that a complete record is obtained of all the stages of works performed under the Contract. Levels shall be recorded in the Field Level Books in standard format, also forming part of the Computerized Measurement Book. The numbering format including work done measurement proforma for the CMBs in the Contract will be approved by the Engineer-In-Charge and shall be strictly followed throughout.

16.2 All such measurements 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.

16.3 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 the Engineer-In-Charge a CMB hardcopy, duly bound, and with its pages machine numbered. The Engineer-In-Charge and/or his authorized representative would thereafter check this CMB hardcopy and record the necessary certificates for their checks/test checks.

16.4 The final, fair, CMB hardcopy given by the Contractor, duly bound, with its pages machine 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 CMB hardcopy with its pages duly machine numbered and bound, after getting the earlier CMB cancelled by the Engineer-In-Charge. Thereafter, the CMB shall be taken on record by the Company. This shall be done before the corresponding bill is submitted by the Contractor for payment.

16.5 The Contractor shall also submit to the Company separately his computerized Abstract of measurements and costs, and the bill based on these measurements and costs, duly bound, and its pages machine numbered. Thereafter, this bill will be processed by the Company for payment. The Contractor shall submit the CMBs and his Bill/Invoice in triplicate for the purpose of reference and record by the various offices of the Company.

16.6 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.

16.7 Engineer-In-Charge or his authorized representative may cause either themselves or through another officer of the Company to check the measurements recorded by the Contractor and all provisions stipulated hereinabove shall be applicable to such checking of measurements or levels.

16.8 It is also a term of this Contract that checking and/or test checking the measurements of any item of work in the CMBs 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 defect liability period.

17.0 COMPLETION PLAN AND COMPLETION CERTIFICATE(S):

17.1 Completion Plans and Operating /Maintenance Manual:
The Contractor shall submit Completion plans for all Civil, Sanitary, Plumbing, Structural and all other types of works as applicable, within thirty (30) days of the likely completion of the work. The Contractor shall submit complete 'record drawings' periodically corrected to show each and every change from working drawings, on tracings/re-producible/CDs, as directed by the Engineer-In-Charge. In case the works include items which require specialized maintenance and/or Plant & Equipment which will require periodic maintenance, the Contractor shall supply along with the Completion Drawings three sets of Operating/Maintenance Manuals as required. In case, the Contractor fails to submit the Completion plan and /or Operating/ Maintenance Manual, as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the contractual value of the such work subject to a ceiling of Rs.5 lakhs (Rupees Five lakhs only) as may be fixed by the Engineer-In-Charge and in this respect the decision of the Engineer-In-Charge shall be final and binding on the Contractor.

17.2 Completion Certificate(s):
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 (30) 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 workmen on the site in connection with the execution of the works as shall have been erected or constructed by the Contractor 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 material sand 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.

18.0 PAYMENT OF FINAL BILL:

18.1 The final bill shall be submitted by the Contractor, in the same manner as specified for the interim bills, within three months of physical completion of the work or within one month of the date of the final Certificate of Completion furnished by the Engineer-In- Charge, whichever is earlier.

No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-In-Charge, will, as far as possible be made within six (6) months, the period being reckoned from the date of receipt of the bill by the Engineer-In- Charge or his authorized representative, complete in all respect.

19.0 STATEMENT OF FINAL BILLS – ISSUE OF NO DEMAND CERTIFICATE:

19.1 The final bill of Contractor shall be accompanied by "No-Demand Certificate" from the following departments of Company (if applicable):

i) Administration & Personnel department regarding vacation of land, recovery of rents etc.
ii) Fire and Safety Officer, and Security.
iii) Maintenance Departments regarding recoveries for hire charges of equipment, water and electricity charges etc. if any.

19.2 The Contractor shall obtain such "No-Demand Certificate" from the concerned authorities and furnish the same to Engineer-In-Charge.

20.0 UNCONDITIONAL NO CLAIM CERTIFICATE:

20.1 Unconditional no claim certificate shall be furnished by the Contractor along-with final bill with the intent the final bill prepared by the Contractor shall reflect any and all claims whatsoever of the Contractor against the Company arising out of or in Contract or work performed by the Contractor.

21.0 COMPLIANCE WITH LAWS, RULES AND REGULATIONS:

21.1 The Contractor shall abide by all applicable rules, regulations, statutes, laws governing the performance of works in India, including but not limited to the following:

i) Contract Labour (Regulation & Abolition) Act 1970 & the centre rules, 1971 framed there under.
ii) Payment of Wages Act.
iii) Minimum Wages Act.
iv) Employer's Liability Act.
v) Factory Act.
vi) Apprentices Act.
vii) Workman's Compensation Act.
viii) Industrial Dispute Act.
ix) Water (Preventions and Control) Act
x) Air (Prevention and Control) Act

xi) Environment Protection Act.
xii) Wild life Act.
xiii) Maritime Act.
xiv) Indian Contract Act.
xv) Any other Statute, Act, Law as may be applicable.

21.2 Contractor shall observe in addition to Codes specified in respective specification, all national and local laws, ordinances, rules and regulations and requirements pertaining to the work and shall be responsible for extra costs arising from violations of the same.

22.0 STATUTORY APPROVALS:

22.1 The Company shall be responsible for Building Permission Drawing approval from the concerned local authority. However, the approval from all other authorities required as per statutory rules and regulations of Central/State Government/Local Bodies for electrical load connection, fire, lift etc. shall be the Contractor's responsibility unless otherwise specified in the Bid Document. Necessary liaison shall be undertaken by the Contractor wherever required with no extra claim. The application on behalf of the Company for submission to relevant authorities along with copies of required certificates complete in all respects shall be prepared and submitted by the Contractor well ahead of time so that the actual construction/ commissioning of the work is not delayed for want of the approval/inspection by concerned authorities.

22.2 The Contractor shall arrange the inspection of the works by the authorities and necessary co-ordination and liaison work in this respect shall be the responsibility of the Contractor. However statutory fees paid, if any, for all inspections and approvals to such authorities required under sub-clause 22.1 shall be reimbursed at actual by the Company to the Contractor on production of documentary evidence. Alternatively, the Company may make such payments directly to the concerned authorities at its discretion.

22.3 Any change/ addition required to be made to meet the requirements of the statutory authorities shall be carried out by the Contractor without additional cost to Company. The inspection and acceptance of the work by statutory authorities shall however, not absolve the Contractor from any of his responsibilities under this Contract.

23.0 TAXES, DUTIES, CESS AND LEVIES:

23.1 The quoted price shall be deemed to be inclusive of all the taxes and duties except GST (i.e., IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra- state supply respectively and GST compensation cess, if applicable). Applicable GST shall be added separately to Bidder's quoted price as provided in the SoQR format.

23.2 Prices shall be furnished strictly in the specified SoQR format(s) attached with the Bid Document.

23.3 Price quoted by the Bidder, shall remain firm and fixed until completion of the Contract and would not be subject to any variation, except as otherwise specifically provided in the bid document.

23.4 Goods and Service Tax (GST)

23.4.1 GCC Clause-8 shall apply in toto.

23.4.2 However, GST shall be paid/reimbursed to the Contractor against receipt of tax invoice and proof of payment of GST to Government (or auto-population of input tax credit on GSTIN portal). In case of non-receipt of tax invoice and/or non-

payment of GST by the Contractor (or non-auto-population of input tax credit on GSTIN portal), Company shall withhold the payment of GST.

23.4.3 Company will not issue road permit/ e-way bills. However, wherever applicable Contractor/vendor will issue road permit/e-way bills.

23.5 Income Tax & Corporate Tax:

a) Income Tax deductions shall be made from all payments made to the Contractor as per the rules and regulations in force in accordance with the Income Tax Act prevailing from time to time & TDS Certificate shall be provided.

b) Corporate Tax Liability, if any, shall be to the Contractor's account.

23.6 Building and Construction Workers Welfare Cess:

In order to govern welfare and working conditions of labourers engaged in construction activities, the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service "RE&CS") Act, 1996 in force in respect of building and other construction works. The Contractor shall strictly comply with the following provisions pertaining to BOCW RE&CS Act'1996:

a) The Contractor must be registered with the concerned authorities under the Building and other Construction Workers' (RE&CS) Act, 1996 or in case of non-registration; the Contractor should obtain registration within one month of the award of Contract.

b) The Contractor shall be responsible to comply with all provisions of the Building and Other Construction Workers' (RE&CS) Act, 1996; the Building and other Construction Workers' Welfare Cess Act, 1996, the Building and other Construction Workers' (RE&CS) Rules, 1998 and the Building and other Construction Workers Welfare Cess Rules, 1998.

c) BOCW Cess, as per the prevailing rate, shall be deducted at source from bills of the Contactor by the Engineer-In-Charge and remitted to the "Secretary, Building and other Construction Workers Welfare Board" of the concerned State, if applicable. The Contactor shall be responsible to submit final assessment return of the Cess amount to the assessing officer after adjusting the Cess deducted at source.

23.7 Notwithstanding the foregoing, the Company shall not bear any liability in respect of:

a) Personal taxes on the personnel deployed by the Contractors, his subcontractors and Agents, etc.

b) The Corporate Taxes in respect of Contractor and his Sub-contractors and other Agents, Indian or foreign based.

23.8 Withholding, Accounting and Tax Requirements

The Contractor shall withhold from wages and salaries of its agents, servants or employees all sums required to be withheld by the laws of India, and to pay the same promptly and directly when due to the proper authority(ies). The Contractor further agrees to comply with all accounting and reporting requirements under the laws of India, and to pay and bear the cost of such compliance. Upon request by the Company, the Contractor will furnish evidence of payment of applicable withholding taxes in India.

23.9 Any other Taxes and Duties and other Levies

Except as herein specified above, the Contractor shall be liable for and shall pay any and all other taxes, duties and levies.

24.0 STATUTORY VARIATION:

24.1 No variation on account of taxes and duties, statutory or otherwise, shall be payable to Contractor except for the following:
GST: If after the due date of submission of last price bid and upto the contractual completion period (including extended contractual completion period for the reasons attributable to Company or due to Force Majeure condition), any increase/decrease occurs in the applicable rate of GST, the variation in such GST shall be to Company's account and shall be adjusted (increase / decrease) to / from the Contractor's invoices based on the documentary evidence.

Any increase in GST after the contractual completion period (including extended contractual completion period for the reasons not attributable to the Company or due to Force Majeure condition) shall be to the Contractor's account. However, any decrease in the rate of GST shall be passed on to the Company.

24.2 Any new taxes, duties, cess, levies notified or imposed after the due date of submission of last /final price bid but before the contractual date of delivery (including extended contractual delivery period for the reasons attributable to the Company or due to Force Majeure condition) shall be to Company's account. These shall be reimbursed against documentary evidence. However, in case of delay attributable to the Contractor, any new or additional taxes and duties imposed after Time for Completion, as above, shall be to the Contractor's account.

Further, any decrease in the rate or withdrawal of taxes, duties, cess, levies notified or imposed after the due date of submission of last /final price bid during the currency of the Contract shall be passed on to the Company.

25.0 INSURANCE:

25.1 Without limiting the Contractor's obligations and responsibilities stated elsewhere in the Contract, the Contractor shall at his own cost arrange, secure and maintain insurance in the joint names of the Company and the Contractor with an insurance company selected by the Contractor and acceptable to the Company, in such a manner that the Company and the Contractor are covered for all time during the period of Contract i.e., the time period allowed for completion of work, extended period and the defect liability period. The insurance shall be affected in accordance with terms approved by the Company and the Contractor shall submit the insurance policies to the Engineer-In-Charge within two weeks of signing of the agreement along with the receipt of premium. The Contractor shall timely pay and submit the receipts of payment of premiums for extensions of policies, if any. No payment for any work done shall be claimed by the Contractor before submission of all the requisite insurance policies to the Engineer-In-Charge.

The insurance shall cover the following: -

a) Contractor's All Risks Insurance: The Contractor shall insure the Work for a sum equivalent to the Contract Value together with materials and plants for incorporation therein, to the full replacement cost and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred and an additional sum of 15% of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred or such additional sums as specified and the interests of the Company against ALL RISKS claims, proceedings, loss or damages, costs, charges and expenses from whatsoever cause arising out of or in consequence of the execution and maintenance of the work for which the Contractor is responsible under the Contract.

b) Workman Compensation & Employers Liability Insurance: This insurance shall be taken for all the Contractor's employees engaged in the performance of the Contract including the workmen employed by the Contractor who have not been covered under ESI. The Company shall not be liable in respect of any damages or compensation payable at law in respect of or in consequence of any accident or injury to any workman or any other person in the employment of the Contractor and the Contractor shall indemnify and keep indemnified the Company against all such damages and compensation and against all claims, demands, proceedings, costs, charges and expenses, whatsoever in respect or in relation thereof.

c) Third Party Insurance: The Contractor shall be responsible for making good to the satisfaction of the Engineer-In-Charge any loss or any damage to all structures and properties belonging to the Company or being executed or procured or being procured by the Company or of the other agencies within the premises of all work of the Company, and damages to the property of third parties including neighbouring buildings etc. if such loss or damage is due to fault and or the negligence or willful acts or omissions of the Contractor, his employees, agents, representatives. This shall also include damages to third parties including visitors, neighbours and other passerby against any claim that may arise due to accidents on account of incidental risks, which may occur during execution of works. The limit of coverage to be undertaken under this clause shall be 10% (ten percent) of the Contract Value.

25.2 The Contractor shall take sufficient care in moving his plants, equipment and materials from one place to another so that they do not cause any damage to any person or to the property of the Company or any third party including overhead and underground cables and in the event of any damage resulting to the property of the Company or to a third party during the movement of the aforesaid plant, equipment or materials, the cost of such damages including eventual loss of production, operation or services in any plant or establishment as estimated by the Company or ascertained or demanded by the third party, shall be borne by the Contractor.

25.3 The Contractor shall at all times indemnify and keep indemnified the Company against all claims, damages or compensation, wherever applicable, under the provisions of Payment or Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, Public Liability Insurance Act 1991, the Workman's Compensation Act, 1947, Industrial Disputes Act, 1947 and Maternity Benefit Act, 1961, including any amendment / modification thereof or any other law relating thereof and rules made there under from time to time.

25.4 The Contractor shall also at his own cost carry and maintain any and all other insurance(s) which he may be required for the Contractor's Equipment; owned, non-owned and hired vehicles, and other things brought onto the site by the Contractor, for a sum sufficient to provide for bodily injury limits and property damage limits including their replacement at the site.

The Contractor shall also at his own cost carry and maintain any and all other insurance(s) which he may be required to take out under any law or regulation from time to time. He shall also carry and maintain any other insurance, which may be required by the Engineer- In-Charge.

25.5 Cross liabilities: The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Company as separate insured.

25.6 Evidence and Terms of Insurance: The Contractor shall prove to the Engineer-In-Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period. The Contractor shall provide evidence to the Engineer-In-Charge as soon as practicable after the respective insurance have been taken out

but, in any case, prior to the start of work at the Site that insurance required under the Contract have been effected and shall, within 45 days of the Commencement Date, provide the insurance policies to the Engineer-In-Charge. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance.

25.7 Adequacy of Insurance: Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the continuity and adequacy of the insurance at all times in accordance with the terms of the Contract and shall, when required, produce to the Engineer-In-Charge the insurance policies in force and the receipts for payment of the current premiums.

25.8 The aforesaid insurance policies shall provide that they shall not be cancelled till the Engineer-In-Charge has agreed for cancellation.

25.9 Remedy on the Contractor's failure to insure: If the Contractor shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the terms of the Contract, then and in any such case the Engineer-In-Charge may, without being bound to, effect and keep in force any such insurance and pay such premium or premiums, as may be necessary for that purpose and from time to time deduct the amount so paid by the Engineer-In-Charge from any money due or which may become due to the Contractor or recover the same as a debt due from the Contractor. An administrative charge of 15% (fifteen percent) on the amount so paid by the Engineer-In-Charge shall be levied on the Contractor.

25.10 Compliance with Policy Conditions: In the event that the Contractor fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, the Contractor shall indemnify the Company against all losses and claims arising from such failure.

26.0 ROYALTY:

26.1 All royalties on forest produce such as sand, aggregates, earth/soil for filling/horticulture etc., as notified by the concerned state government, and as may be required from any Burrow Areas/query etc. including requisite permits and the right of way to be arranged by Contractor, shall be deemed to have been included in the quoted prices and shall be deposited by the Contractor to the concerned local authorities.

26.2 Contractor's quoted rate should include the royalty on different applicable items as per the prevailing Government rates. In case, Company is able to obtain the exemption of Royalty from the State Government, the Contractor shall pass on the same to Company for all the items involving Royalty. Any increase in prevailing rate of Royalty shall be borne by the Contractor at no extra cost to the Company.

26.3 If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Company and does not any time become payable by the Contractor to the State Government, Local authorities in respect of any material used by the Contractor in the works, then in such a case, it shall be lawful to the Company and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the Contractor.

26.4 Company shall ordinarily withhold the Royalty due to the Government from the bills of the Contractor on prorate basis of quantity consumption and applicable rates, which shall be refunded to the Contractor upon submission of the Forest Royalty Clearance Certificate (FRCC) from the concerned government department.

27.0 DRAWINGS AND DOCUMENTS:

27.1 The drawings accompanying the Bid Document (if any) are of indicative of scope of work and issued for bidding purpose only. Purpose of these drawing is to enable the bidder to make an offer in line with the requirements of Bid Document. However, no extra claim whatsoever shall be entertained for variation in the "Approved for Construction" (AFC)/ "Good for Construction" (GFC) and "Bid Document drawings" regarding any changes/units. Construction shall be as per AFC/GFC drawings. AFC/GFC drawings on the basis of which actual execution of work is to proceed will be supplied by the Company to the Contractor wherever required as per the Scope of Works and Technical Specifications so as to procced with execution. Such drawings which are required to be issued by the Company shall be furnished to the Contractor progressively based on the detailed Construction Programme evolved after the award of work and also based on construction progress achieved.

There may be changes to any extent when compared with the initial drawings annexed in the Bid Document. The AFC/GFC drawings may also undergo multiple subsequent revisions during the construction phase.

27.2 The contractor shall go through the drawings and bring to the notice of the Company Representative discrepancies therein, if any, before actually carrying out the work.

27.3 Copies of all detailed working drawings relating to the works shall be kept at the Contractor's office on the site and shall be made available to the Engineer-In-Charge/ Consultant at any time during execution of the Contract.

28.0 CONSULTANTS:

28.1 Engineering and Project Management Consultant (EPMC) has been engaged by the Company for all technical matters under this Contract. In addition to providing the detailed architectural and engineering consultancy services, the EMPC shall, perform inter-alia the following:

a) Prepare and issue working drawings and details for proper execution of works during construction

b) Approve samples of various elements and components.

c) Check and approve shop drawings and other submittals of the Contractor/ Vendors including review of Designs, Planning, Construction drawings and Specifications, Purchase requisition/specification, QAP and engineering related to fabrication, installation, testing and hook-up, pre-commissioning and commissioning (wherever applicable as per bidding document) procedures, and Operating Manuals, etc., i.e., all issues related to the satisfactory completion of the Works as defined in the Bid Document.

d) Visit the site of work, as required by the Engineer-In-Charge, to inspect and evaluate the construction works and where necessary clarify any decision, offer interpretation of the drawings/specifications, attend conferences and meetings to ensure that the project proceeds generally in accordance with the conditions of Contract and keep the Engineer-In-Charge informed and render advice on actions, if required.

e) Engage a Construction Manager (Site Supervisor) to ensure that the work at site proceeds in accordance with the contract documents/ drawings and to exercise time and quality controls, the day-to-day supervision including submission of Daily Progress Report (DPR) and endorsement of Contractor's Monthly Progress Report (MPR) and other reports to the Engineer-In-Charge.

f) Witness, Inspect and Certify the Tests conducted by the Contractor and maintain all inspection and test reports including handing over those and all

the warranty card of the plants, tools & equipment installed in the works to the Engineer-In-Charge necessary for the orderly and speedy execution of the construction works.

g) To ensure quality of work as per in-house Quality Assurance Systems, plans and procedure.

h) Periodic review of Project Schedule/ Construction Program established by the Contractor, for the Engineer-In-Charge.

i) Certify quality and quantity of work measurement performed by Contractor. However, final scrutiny of the Contractors' bills and payment for these will be done by Engineer-In-Charge.

j) Assist the Engineer-In-Charge in expeditious settlement of all extra claims and Change Orders, extension of time/ liquidated damages, if any, and other disputes.

k) Issue Certificate of Virtual Completion of works.

l) Review of documents under Clause 29.3.

29.0 CONTRACTOR'S ENGINEERING:

29.1 General

The design data/ criteria, specifications and other engineering requirements and information supplied by Company are included in the SoQR read along with the Technical Specifications and Drawings of the Bid Document. The Contractor shall carry out complete Design & Engineering/ Residual Engineering and detailing and preparation of shop / fabrication / execution drawings/ Technical data-sheets for the MEP (mechanical/ electrical/ plumbing) items of works, wherever required for the bought-out/ vendor specific items and the costs for the same shall be deemed to be included in the Contractor's SoQR. The Contractor will be responsible for developing such information as required to perform the detailed/ residual design, engineering and detailing, procurement, fabrication, transportation, Construction, installation, hooking-up, testing, pre-commissioning, commissioning and handing over of such items of works in the SoQR.

29.2 It is the Company's intention to have the best equipment new and in first class condition, available for its facilities. The specifications contained within this Bid Document are to provide the Contractor with performance criteria for all major items of materials, works and equipment. The Contractor may select unspecified materials, works and equipment, but will solicit Engineer-In-Charge's approval giving reasonable justification.

29.3 Review and Approvals of Design and Engineering:

Contractor shall submit to Engineer-In-Charge for review and approval of all design and engineering, detailing and shop/ fabrication/ execution drawings etc. design specifications, detailed calculations, QAP and purchase specifications etc. for the Work and other information required by Engineer-In-Charge prior to issuing for Construction/ Procurement/ Supply & Installation.

All drawings shall be made to a reasonable scale and in detail. If it is found that Contractor has not complied with Company's drawings or specifications provided, then the necessary changes required shall be made by Contractor at no additional cost and time to the Company. In no way does this relieve the Contractor of his responsibility to comply with all Contract specifications for this project unless Contractor receives from the Company a written request for the specific deviation or written authority to deviate from the specifications pertaining to the item in question.

Contractor shall maintain a design and drafting schedule that will allow sufficient time for Engineer-In-Charge to review all drawings and any necessary changes to be made.

Engineer-In-Charge with the aid of the EPMC will review all facets of Contractor's design including design calculations in order to ascertain compliance with design criteria, specifications. Such review for approval shall include, but not limited to, the following items:

a) Structural designs, plans, elevations, material selection etc. under detailed/residual design & engineering as may be applicable for the bought-out items.

b) Electrical wiring diagram, inter connection drawings, lighting cables and earthing layouts, wherever required.

c) Design, data sheets and/or drawings for the system and equipment involved in Fire- fighting system, HVAC/Air Conditioning system, Lifts, Electric sub-station including hook-up, Sewage Treatment Plant and Sewerage, Water Treatment Plant and supply network, Solar PV power plant, CCTV & AV system etc. as determined and directed by the Engineer-In-Charge.

d) Installation procedures for all structures and equipment, etc. including all analysis, design and detailing connected with fabrication, transportation and installation.

e) All purchase specifications including engineering connected with vendor specific items.

Engineer-In-Charge or his Representative's review for approval of Contractor's design in no way relieves the Contractor of the responsibility to satisfy the design criteria and specifications set out in the Contract and install a safe and operable facility.

29.4 Review Procedure

The following procedures will be utilized in Engineer-In-Charge's review:

a) Contractor will forward copies of all preliminary drawings and specifications in accordance with the correspondence schedule, design and drafting schedule and procedure. Distribution of all documents etc. is the responsibility of the Contractor.

b) In the event that Contractor does not receive Engineer-In-Charge's comments on items within 15 working days [(excluding intervening Saturday(s) and Sunday(s)] from the date of receipt by the Engineer-In-Charge / EPMC then it may be assumed that there are no comment, and the items may be issued for construction.

c) Where marked-up drawings or comments on drawings and specifications are returned, Contractor shall make the corrections and obtain Engineer-In-Charge’s approval before issuing the same for construction/ manufacturing/ supply transmitting copies in accordance with the correspondence procedure.

d) Should any item shown on plans issued for construction be changed due to any reason whatsoever after the plans have been approved, new or corrected plans shall be made, and new prints furnished for review and approval of Engineer-In- Charge. This will also apply to site changes during fabrication and installation. No extra payment shall become due to the Contractor under such conditions.

29.5 Drawing and Specification Records

29.5.1 Drawing Schedule

Within 15 working days from the date of commencement, Company shall issue all the detailed architectural drawings, included in the Bid Document. Contractor shall furnish to the Engineer-In-Charge as soon as possible (First issue not later than 30 working days from LOA), a complete list of all drawings which will be prepared by him under detailed/residual design & engineering. This schedule of drawings shall show the drawing number, title, revision number, and issue number together with the date issued. A revised Catch-up plan shall be furnished periodically at least on a quarterly basis, (in case of delays) until the work is completed. The Contractor shall supply reduced size prints of AFC drawings as and when required by the Engineer-In-Charge at no extra cost to the Company.

29.5.2 Specification and Data Sheets

An up-to-date list of all specifications and data sheets shall be furnished by the Contractor as soon as practicable after the work is started. The sheets shall show number, title, revision number and date so that a current summary of latest specifications will be available for reference. This list shall be revised, and new distribution made in the same manner as the drawing schedule.

29.5.3 As-Built Plans

Upon completion of identifiable units or components of the construction and/ or installation phase of the project, the Contractor will complete all of the related plans to the "as-built" stage (including all vendor drawings) for the drawings under detailed/ residual engineering. Contractor shall provide the as-built documents in hard & soft copies as detailed below:

a) Bound sets of approved specifications.

b) Bound sets of certified as-built drawings in A3 size.

29.5.4 Data storage formats

Contractor shall furnish as-built record on hard copy and soft copy on CD/pen-drives which shall contain explicit details on following points over & above to the Bid Document requirement.

i) Certified 'As built' drawings
ii) Name of the
- Contractor(s)
- Engineer-In-Charge
- Consultant
- Certification Agency

iii) Details such as
- Fabrication/Installation/Commissioning period Software for documentation

Contractor shall use latest version of MS Office for text documents and daily correspondences, reports etc.

30.0 GREEN BUILDING CERTIFICATION:

30.1 The project is aimed at achieving Green Building Certification under GRIHA for 4-Star rating. The Contractor is deemed to have quoted his rates for all items in the SoQR considering all the provisions necessary for the specified Green Building rating and standards. This shall be irrespective of whether the same have been mentioned explicitly in the item description in the Schedule of Quantities & Rates / Scope of work / Technical Specifications including various schedule of finishes, particular specifications etc., or not.

30.2 The Contractor is deemed to have examined and made sure to offer his quote based on conformity of the materials/ items included in the "List of Approved Brands" to

the Green Building norms and requirements. As such, all items incorporated in the works shall be GRIHA 4-Star rating compliant and rates of all such materials confirming to Green Building norms of GRIHA 4-Star rating shall be deemed to be included in the quoted rates.

30.3 The Contractor shall engage a Green Building Consulting agency to guide in the certification process and shall register the project for obtaining GRIHA Rating from the GRIHA Council. Cost of engagement of the consulting agency and the cost of registration of the project with the GRIHA Council shall be deemed to have been included in Contractor's quoted rates for all items in the SoQR and such costs shall be accordingly borne by the Contractor, notwithstanding anything to the contrary mentioned anywhere else in the Contract. Special conditions for GRIHA rating are attached at Annexure - VI to SCC, which shall be read along with the SCC Clause-72 [Pollution Control / C& D Waste Guidelines] and to be scrupulously followed by the Contractor.

30.4 The contractor is required to execute the work in a befitting manner to obtain the desired GRIHA rating as advised by the Green Building Consulting agency.

In case the Contractor fails to achieve the desired GRIHA 4-Star rating, a contract price reduction @ Rs.10,00,000/- per rating point by which the Contractor fails to achieve GRIHA 4-Star rating but not exceeding 2% (Two percent) of the final executed contract value shall be applied. In order to make necessary provisions for such unlikely eventualities, amount @ 2% (Two percent) of the gross amount of each running account bill shall be withheld till receipt of the award of the GRIHA 4-Star rating for the project upon which the amount so held by the Company shall be released to the Contractor.

80% of the amount retained against GRIHA certification will be released on receipt of Provisional 4-Star rating and balance 20% shall be released after receipt of Final 4-Star rating for the project from GRIHA.

31.0 DISMANTLED MATERIAL CONTRACTOR'S PROPERTY:

There are certain existing buildings, sheds and structures at the project site which the Contractor is required to demolish/ dismantle to obtain clear work site. Few existing trees also are required to be removed. The Contractor is deemed to have visited the project site to gauge the extent of demolition/dismantling works and make necessary cost adjustments to his overall quoted price in the SoQR in lieu of the credits against salvage value of the dismantled materials. No extra cost shall be payable to the Contractor on this account for demolition/dismantling.

However, for cutting & removal of the trees, payment shall be made under relevant items in the SoQR.

The Contractor shall treat all materials obtained from demolition and dismantling of existing buildings and structures including the remnants from tree cutting etc. as his property and such materials shall be disposed-off to the best advantage of work execution with a reasonable period.

32.0 CHANGE ORDER (DEVIATIONS/ VARIATIONS EXTENT AND PRICING):

32.1 The Engineer-In-Charge shall have power

a) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and

b) to omit a 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, additional or substituted work which the Contractor may be directed to do in the manner specified above as part of the works, 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 hereafter provided.

32.2 The rates for such additional, altered or substituted Work under this clause shall be worked out in accordance with the following provisions:

a) If the rates for the additional, altered or substituted Work are specified in the Contract for the Work, the Contractor is bound to carry on the additional, altered or substituted Work at the same rates as specified in the Contract. SoQR rates shall be applicable for deviations to any extent on both plus & minus side for all items in the SoQR.

b) If the rates for the additional, altered or substituted Work are not specifically provided in the Contract for the Work, the rates will be derived from the rates for similar class of Work as are specified in the Contract for the Work. The opinion of the Engineer- In-Charge, as to whether or not the rates can be reasonably so derived from the items in this Contract will be final and binding on the Contractor. In case different rates are quoted for the same item nomenclature appearing in various parts of the SoQR, then the lowest of such quoted rates shall be considered.

c) If the rates for the altered, additional or substituted Work cannot be determined in the manner specified in sub-clause (a) and (b) above, then the Contractor shall, within 7 days of the date of receipt of instruction to carry out the Work, inform the Engineer-In-Charge of the rates which it is his intention to charge for such class of Work, supported by analysts of the rate or rates claimed, and the Engineer-In- Charge shall determine the rate or rates on the basis of the prevailing market rates of the materials, labour cost as per minimum wages of the Ministry of Labour & Employment, Govt. of India as per circular issued by RLC (Central) applicable at the place of work Plus 15% to cover contractor's supervision, overheads and profit and pay the Contractor accordingly.

   Normally the coefficients for material consumption and labour requirement for an item shall be considered from the CPWD Analysis of Rates (latest edition). In absence of any such data/details, the opinion of the Engineer-In-Charge as to of materials requirement and the quantum of labour involved per unit of measurement including the current market rates will be final and binding on the Contractor.

d) Where the item of work will be executed through nominated specialist agency as approved by the Engineer-In-Charge, then the actual amount paid to such nominated agency supported by documentary evidence and as certified by Engineer-In-Charge shall be considered plus 15% (Fifteen percent) to cover all contingencies, overhead, profits to arrive at the rate.

32.3 In all such cases, a Change Order will be initiated by the Contractor, within fifteen (15) days of receipt of order from Engineer-In-Charge, to claim the rate(s), supported by proper analysis for the items and the Engineer-In-Charge shall within prescribed time limit 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 of both of extra items or original and substituted items as the case may be (as per invoice, vouchers from the manufacturers or suppliers submitted by the Contractor and duly verified by Engineer-in-Charge or his

representative and the Contractor shall be paid in accordance with the rates so determined.

The prescribed time limit for finalizing rates for Extra Item(s), Substitute Item(s) and Deviated Quantities of Contract items is within 45 days after submission of proposal by the Contractor without observation of the Engineer-In-Charge.

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

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

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

33.0 PROCEDURES & METHOD STATEMENTS:

33.1 The Methods statement is a statement by which the construction procedures for any activity of construction are formulated and stated in chronological order. Various Procedures and Method Statements to be adopted by the Contractor during the construction as required as per the respective specifications shall be submitted to Engineer-In-Charge in due time for approval. The Contractor shall submit Methods Statement for each important activity for approval of the Engineer-In-Charge.

33.2 The Methods Statement, should have a description of the item with elaborate procedures in steps to implement the same, the specifications of the materials involved, their testing and acceptance criteria, equipment to be used, precautions to be taken etc.

33.3 No construction activity shall commence unless the relevant procedure/ Methods Statement is approved by Engineer-In-Charge in writing.

33.4 The Contractor shall also submit to the Engineer-in-Charge for his approval, in addition to the Method Statement,

a) A general tentative deployment plan of construction plant and equipment for the execution of work within time period specified in the Contract.

b) Drawings showing the locations of major plants and other facilities which the Contractor proposes to put up at the site, within 15 days of issue of the Letter of Acceptance.

c) Layout and details of temporary works that the Contractor wants to carry out to fulfill his obligation under the Contract, at least 15 days prior to the commencement of such works.

Within seven (7) days, the Engineer-In-Charge through the Site Engineer shall give his approval to proceed with the work with or without modification. However, acceptance of program and method of working as submitted by the Contractor or with any modification thereto by the Engineer-In-Charge shall not relieve the Contractor of any of his contractual obligation.

All these programs and plans submitted by the Contractor and approved by the Engineer- In-Charge shall become part of the Contract.

34.0 EXECUTION OF ELECTRICAL WORKS (As applicable):

34.1 The Contractor shall engage an approved electrical agency holding valid electrical Contractor license, for execution of electrical works/electrical facilities at site (as

applicable. In case Contractor himself executes electrical works then he shall arrange valid electrical Contractor license before start of electrical works at site.

34.2 All test clearances and certificates required by the State Government authorities for energizing / commissioning the electrical system laid by the Contractor shall be obtained by the Contractor at his costs and initiative, for which the Contractor shall perform such tests and undertake such rectification and/ or changes as may be required.

34.3 The Contractor or his authorized sub-contractor shall have a valid electrical contractor's license for working in the State where the site is located. The Contractor shall furnish a copy of the same to Engineer-In-Charge before commencement of any electrical work or work pertaining to Electrical System. No electrical work or work pertaining to electrical system(s) shall be permitted to be executed without a valid Electrical Contractors License being produced by the Contractor.

35.0 COMPANY'S SITE ENGINEER/ REPRESENTATIVE:

35.1 The duties and authorities of Company's site engineer / representative to act on behalf of the Company shall be for:

a) Overall supervision, co-ordination and Project Management at site.

b) Proper and optimum utilization of equipment and services.

c) Monitoring of performance and progress.

d) Commenting/ countersigning on reports made by the Contractor's representative at site in respect of works, receipts, consumption etc. after satisfying himself with the facts of the respective cases.

e) He shall have the authority, but not obligation at all times and any time to inspect/ test/ examine/ verify any equipment machinery, instruments, tools, materials, personnel, procedures and reports etc. directly or indirectly pertaining to the execution of the work. However, this shall not construe to imply an acceptance by the inspector.

Hence, the overall responsibility of quality of work shall rest solely with the Contractor.

f) Each and every document emerging from site in support of any claim by the Contractor has to have the countersignature/ comments of the Company's site engineer / representative without which no claim shall be entertained by the Company.

36.0 RESPONSIBILITY OF CONTRACTOR:

36.1 It shall be the responsibility of the Contractor to obtain the approval for any revision and/or modifications decided by the Contractor from Company before implementation. Also, such revisions and/or modifications if accepted/approved by Company shall be carried out at no extra cost. Any change required during functional requirements or for efficient running of system, keeping the basic parameters unchanged and which has not been indicated by the Contractor in the data/drawings furnished along with the offer shall be carried out by the Contractor at no extra cost to Company.

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

36.3 It shall be entirely the Contractor's responsibility to provide, operate and maintain all necessary construction equipment, steel scaffoldings and safety gadgets, cranes and other lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all the jobs as per time schedule. It is the responsibility of the Contractor to get their Lifting and Shifting equipment tested and certified at stipulated intervals by the Competent Statutory Authority / Authorised Agency. Such certification shall be current and valid and shall be produced on demand by the Engineer-In-Charge.

36.4 Preparing approaches and working area for the movement and operation of the cranes, levelling the areas for assembly and erection shall also be responsibility of the Contractor. The Contractor shall acquaint himself with access availability facilities, such as railway siding, local labour etc., to provide suitable allowances in his quotation. The Contractor may have to build temporary access roads to aid his own work, which shall also be taken care of while quoting for the work and nothing extra shall be payable on this account.

36.5 The procurement and supply in sequence and at the appropriate time of all materials and consumables shall be entirely the Contractor's responsibility and his rates for execution of work will be inclusive of supply of all these items. Contractor shall not use any of the equipment or materials issued to him by Company for installation purposes for laying temporary lines, manufacturing erection aids etc. Misuse of materials will be seriously viewed and deductions at penal rates will be made from the Contractor's bills for such quantities that are misused.

36.6 STATUTORY APPROVALS: OIL shall be responsible for obtaining Building Construction approval from Municipal Corporation of Goa. For obtaining all other statutory approvals during construction and thereafter including taking approval for permanent Electrical Connection and for installation of Transformer etc, the contractor shall be responsible on behalf OIL or on his behalf unless otherwise parameters are fully dependent on OIL. Necessary liaisoning to be undertaken wherever required with no extra claim. All the approvals shall be taken before the scheduled completion period and in any case before the work can be taken over.

37.0 OBLIGATIONS OF THE CONTRACTOR:

37.1 In order to ensure that the contract work is executed strictly in accordance with this Agreement and in time, the Contractor shall have the following obligations at no extra cost to the Company in addition to such other obligations and responsibilities as have been specified elsewhere in this Contract.

a) Provision of adequate number of constructional Plant and machinery for mechanized system of construction, handling and transportation.

b) Provision of special magazine at the site for storage of explosives, if necessary, for which required license shall be obtained from the concerned authorities.

c) Full-fill all the Contractor's labour regulations, i.e., fair wages, display of notices regarding wages, payment of wages, labour records, attendance cards-cum-wage slips, labour welfare etc. as per standard practices and norms applicable at site.

37.2 All fossils, gold, silver, oil and other minerals, precious stones, coins, articles of value, of antiquity and structures and other remains/things of geological or archaeological interest discovered on the site of the works shall be notified by the Contractor immediately to the Engineer-In-Charge for onward information to the concerned authorities.

37.3 The Contractor shall take all reasonable precaution to prevent his workmen or any other person from removing or damaging any such article(s) or thing(s) and protect the same till the removal as per the instructions of the Engineer-In-Charge.

37.4 Clearance of the site of all rubbish, debris, tanks, materials, temporary structures, plant and machinery, scaffoldings and filling of all pits, exaction and hand over the site in a tidy and cleaned condition.

37.5 Opening up of covered work if instructed by the Engineer, if such covering was done before inspection by the Engineer or without permission/ approval from the Engineer-In- Charge.

38.0 SITE ORGANISATION (Contractor's Superintendence, Supervision, Technical Staff & Employees):

38.1 Contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the Contract. The Contractor shall immediately after receiving Letter of Acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-In- Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the Project Manager to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Annexure - VII to SCC. The Engineer-In-Charge shall within five (5) working days of receipt of such communication intimate in writing his approval or otherwise of such representative(s) to the Contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the Contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the Contractor in this respect. Such a Project Manager and other technical representative(s) shall be appointed by the Contractor soon after receipt of the approval from Engineer-In-Charge and shall be available at site before start of work.

All the provisions applicable to the Project Manager under the Clause will also be applicable to other technical representative(s). The Project Manager and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/ themselves, as required, to the Engineer-In-Charge and/or his designated representative to take instructions. Instructions given to the Project Manager or other technical representative(s) shall be deemed to have the same force as if these have been given to the Contractor. The Project Manager and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-In-Charge and shall also note down instructions conveyed by the Engineer-In-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/ checked measurements/ test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-In-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-In-Charge, whose decision in this respect is final and binding on the Contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the Contractor as specified in Annexure - VII to SCC and the decision of the Engineer-In-Charge as recorded in the site order book and measurement recorded checked/ test checked in Measurement

Books shall be final and binding on the Contractor. Further if the Contractor fails to appoint suitable Project Manager and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-In-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the Contractor shall be held responsible for the delay so caused to the work. The Contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or PPF/CPF deduction issued, or suitable proof of salary payment to the Engineers employed by him) along with every on-account bill & final bill and shall produce evidence if at any time so required by the Engineer-In-Charge.

38.2 Contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

Contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-In-Charge shall be at liberty to object to and require the Contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-In-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-In-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

38.3 Contractor shall maintain manpower engagement register (including skilled and unskilled labour) as per format approved by the Engineer-In-Charge at site and should present the same to the Company whenever asked for.

39.0 EMPLOYMENT OF SKILLED/ SEMI SKILLED WORKERS:

39.1 Contractor shall, at all stages of work, endeavour to deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/ National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The Contractor shall submit number of man- days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the Contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge.

39.2 Contractor shall arrange on site training as per National Skill Development Corporation (NSDC) norms for at least 25% of the unskilled workers engaged in the project in coordination with the CPWD Regional Training Institute & National Skill Development Corporation (NSDC) for certification at the level of skilled/semi-skilled tradesmen. The cost of such training as stated above shall be borne by the Government. The necessary space and workers shall be provided by the Contractor and no claim what so ever shall be entertained.

40.0 EQUIPMENTS, TOOLS & TACKLES:

40.1 The Contractor shall without prejudice to his overall responsibility to execute and complete the work as per specifications and time schedule, progressively deploy

equipment and tools & tackles and augment the same as decided by the Engineer-In-Charge depending on the exigencies of the work so as to complete all works within the contracted time schedule and without any additional cost to the Company. Minimum equipment, tools & tackles to be deployed by the Contractor shall be as per the Annexure - VIII to GCC. No construction equipment shall be supplied by the Company.

40.2 The Contractor shall submit, along with the Construction Programme and Method Statement mentioned above at SCC clause 7 & 33, a comprehensive plant/ equipment deployment schedule which shall include the dates of arrival on and removal from site of each major item of plants.

40.3 Non-deployment of the equipment within stipulated time/date in the deployment schedule may invite penalty equivalent to daily/hourly rental for the delay period which will deducted from the bills as decided by the Engineer-In-Charge. The rental for this purpose shall be as per the basic rates appearing in the CPWD Delhi Schedule of Rates relevant to the Contract or prevailing market rate (based on single quotation collected by Engineer-In- Charge with or without intimation to the Contractor) whichever is higher.

41.0 MECHANISED WORKS:

41.1 The Contractor shall without prejudice to his responsibilities to execute and complete the Work as per the specifications and time schedule, adopt as far as practicable, mechanized work techniques for major site activities. Contractor agrees that he will deploy the required number and type of the plant & machinery applicable for different activities in consultation with Engineer-In-Charge during execution of works.

41.2 Contractor further agrees that Contract Value is inclusive of all the associated costs, which he may incur for actual mobilization, required in respect of use of mechanized construction techniques and that the Company in this regard shall entertain no claim whatsoever.

41.3 For speedy execution of Work, Contractor shall also ensure use of computer software for at least the following:

i) Billing
ii) Planning & Scheduling
iii) Progress Reporting
iv) Material Control & Warehousing
v) Safety Records
vi) Resource Deployment
vii) Communication

42.0 LABORATORY AND SITE OFFICE:

42.1 Laboratory at site:

a) The Contractor shall establish a testing lab at site and provide testing equipment and materials for the field tests mentioned in the list of mandatory tests given in CPWD specifications 2019 Vol. 1 & 2 for the works carried out by him.

The site laboratory with the minimum equipment as specified in Annexure - IX to GCC shall be established, made functional and maintained within thirty (30) days from the commencement date. In case of non-compliance of the same, a penalty/recovery @ Rs.50,000/- per month may be made from the Contractor on prorata daily basis. The Contractor shall be required to arrange all the relevant codes and standards along with qualified staff to handle/operate testing equipment. Nothing extra shall be payable to him on this account.

b) The representatives of the Engineer-In-Charge shall be at liberty to inspect the testing facilities at site and conduct testing at random in consultation with Engineer- In-Charge. The Contractor shall provide all necessary facilities for the purpose.

c) Not more than 90% tests for material/works be performed at site lab with above stated equipment's, and at least 10% testing of materials/works shall be got done from any laboratory approved by the Engineer-In-Charge. However, for the tests to be carried out by the external laboratories, the Contractor shall supply free of charge all the materials required for testing, including transportation. If the tests which were to be conducted in the site laboratory are conducted in other laboratories for any the reasons the cost of such tests shall be borne by the Contractor.

d) The Contractor shall arrange carrying out all tests required under the agreement through the laboratory as approved by the Engineer-In-Charge and shall bear all charges in connection therewith including charges for testing for all materials.

e) Cement shall be got tested by the Company for every 1000 bags or part there off. The Contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories. The cost of tests shall also be borne by the Contractor.

f) The tests, as necessary, shall be conducted in the following laboratory. The samples shall be taken for carrying out all or any of the tests as directed by the Engineer-In- Charge or his authorized representative.
- o IIT / NIT
- o Government Engineering College / University
- o National Test House
- o Delhi Test House
- o Any other NABL approved lab as per Engineer-In-Charge

42.2 Site Office:

a) The Contractor has to provide free of cost 2 office rooms with attached toilet with the approval of Engineer-In-Charge for the purpose site office of field staff of the Company (Approx. 50 sqm area) within thirty (30) days from the commencement date.

b) The Contractor has to also make arrangement for furnishing of this site office with appropriate numbers of tables, chairs, cupboards, ceiling fans, electric fittings, regular electricity and purified drinking water facility and other furniture as per direction of Engineer-In-Charge. One set of desktop computer of reasonable configuration approved by the Engineer-In-Charge, along with registered MS Window and Office preloaded and including monitor, Laser printer and scanner (A3 size) shall be provided by the Contractor for the site office of the Company. No extra payment on account of this shall be made to the Contractor.

c) All the above structures should be decent looking and shall be constructed as per direction of Engineer-In-Charge.

d) All the above structure shall be demolished after completion of work and the dismantled material shall be the property of the Contractor including the computer and other peripherals provided in the Company site office.

e) In case of non-compliance of the same, a penalty/recovery @ Rs.50,000/- per month may be made from the Contractor on prorata daily basis.

43.0 CONSTRUCTION POWER AND WATER AND OTHER FACILITIES:

43.1 **Construction Power will not be provided by Company**. Contractor shall make his own arrangement for construction power by providing adequate number of DG sets or by obtaining temporary commercial power connection from concerned government distributor/supplier at his own costs and the quoted rates shall be deemed to be inclusive of the cost on account of the same. The DG sets to be provided at the site shall be suitable for their operation and comply with the requirements for Green Building certification.

43.2 Drinking Water for the Contractor's labour and employees shall be in the scope of the Contractor. **Company shall not provide Drinking Water**.

43.3 **Construction Water will not be provided by the Company**. Contractor shall make his own arrangement for construction water and cost of the same shall be deemed to be included in the quoted rates.

43.4 **Land for Contractor's Field Office, Godown and Workshop**: The Company may, subject to availability and at its own discretion and convenience, and for the duration of the execution of the work, make available near the site, free of charge, the land for construction of Contractor's field office, godown, workshop and assembly yard etc. required for the execution of the works. The Contractor shall at his own cost construct all these temporary buildings and provide suitable water supply and sanitary arrangement approved by the Engineer-In-Charge.

43.5 **Land for Residential Accommodation**: Land for residential accommodation for staff and labour of the Contractor, subject to availability, may be made available at the discretion of the Engineer-In-Charge within the campus free of rent. However, development of such land, access roads, if necessary, shall be done by the Contractor at his own cost.

43.6 **Site clearance**: On completion of the works undertaken by the Contractor, he shall remove all temporary works erected by him and have the site cleaned as directed by the Engineer-In-Charge. If the Contractor shall fail to comply with these requirements, the Engineer-In-Charge may, at the expense of the Contractor, remove such surplus and rubbish materials and dispose of the same as he deems fit and get the site cleared as aforesaid; and the Contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such surplus materials disposed-off as aforesaid. But the Company reserves the right to ask the Contractor any time during the pendency of the Contract to vacate the land by giving seven (7) days' notice on security reasons or on material interest or otherwise.

44.0 SECURITY:

44.1 Security of Contractor's men, materials and Tools and Plants engaged in the Works shall be the Contractor's responsibility. The Contractor shall not be eligible for any claim or extension of time whatsoever on this account.

45.0 SETTING OUT THE WORK:

45.1 Company shall furnish the relevant existing grid point with Bench Mark, on the land. It shall be Contractor responsibility to set out the necessary control points in and to set out the alignment of the various works. The Contractor shall employ an efficient survey team for this purpose and the accuracy of such setting out works shall be the Contractor responsibility.

45.2 The Contractor shall give the Engineer-In-Charge not less than 48 (forty-eight) hours' notice in writing of his intention to set out or give levels for any part of the work so that arrangements may be made for checking the same.

45.3 Work shall be scheduled so as to enable checking of the lines and levels on any part of the work.

45.4 The Contractor shall within the scope of work provide all assistance, tools, gauges and instruments required to enable the Engineer-In-Charge to check the setting out of works.

46.0 SITE CLEANING:

46.1 The Contractor shall clean and keep clean the work site from time to time to the satisfaction of the Engineer-In-Charge for easy access to work site and to ensure safe passage, movement and working. The Contractor shall dispose-off the unserviceable materials, debris etc. at approved municipal dump yard or any such location identified and chosen by the Contractor for his own convenience without creating nuisance of any sort to the general public. No extra payment shall be made on this account.

46.2 If the work involves dismantling of any existing structure in whole or part, care shall be taken to limit the dismantling upto the exact point and/or lines as directed by the Engineer- In-Charge and any damage caused to the existing structure beyond the said line or point shall be repaired and restored to the original condition at the Contractor's cost and risks to the satisfaction of the Engineer-In-Charge, whose decision shall be final and binding upon the Contractor.

46.3 The Contractor shall sort out, clear and stack the serviceable materials obtained from the dismantling/ renewal at places as directed by the Engineer-In-Charge, and shall be the custodian of the dismantled materials, if any, till the Engineer-In-Charge takes charge thereof or directs the Contractor to dispose-off the same as per the terms of the Contract.

46.4 No extra payment shall be paid on this account for any of the above activities. The rates quoted in the SoQR are deemed to be inclusive of all the costs towards all the above activities as well.

46.5 The surplus material / scrap out of Contractor supplied materials shall be taken out by the Contractor.

47.0 CHECKING OF LEVELS:

47.1 Contractor shall be responsible for checking levels/ orientation/ alignment of all foundations, bolts, supports, structures etc. well in advance of taking up actual erection work and bring to the notice of Engineer-In-Charge, discrepancies, if any. Necessary rectifications on account of any variations shall be carried out by the Contractor within the quoted rates.

47.2 The Contractor shall also be responsible for checking with templates, wherever necessary, the disposition of foundation bolts with the corresponding bases of structure and shall effect rectifications, as directed, within his quoted rate.

48.0 PROTECTION OF EXISTING FACILITIES:

48.1 Contractor shall obtain all safety clearance (viz. Excavation, Hot/ Cold work permit) from Engineer-In-Charge or his representative as may be required from time to time, prior to start of work. Work at height without safety permit shall not be carried out.

48.2 Contractor shall take all precautions to ensure that no damage is caused to the existing pipelines, cables etc. during construction. Valve chamber of existing pipelines, other existing structures, existing stone pitching and other stabilization measures in the work site damaged/ disturbed during construction shall be repaired and restored to their original condition by Contractor after completion of construction to the complete satisfaction of Engineer-In-Charge.

48.3 Contractor shall in consultation with Engineer-In-Charge and the concerned authorities, take adequate measures for strengthening the existing electric poles, telephone poles etc. in the proximity of the pipeline / cable alignment. Contractor shall take adequate protective measures to prevent damage to these facilities during construction. Contractor shall have to adopt such method of construction as will be suitable for working in these areas using the limited space available and without causing any damage to these facilities. Contractor shall be deemed to have taken cognizance of all such existing constraints, if any, while working in the area and Contractor shall not be entitled to claim any extra payment on this account at a later stage.

49.0 TEMPORARY WORKS:

49.1 All temporary works, ancillary works, enabling works, including dewatering of surface and subsoil water, preparation and maintenance of temporary drains at the work site, preparation and maintenance of approaches to working areas, wherever required, for execution of the work, shall be the responsibility of the Contractor and all costs towards the same shall be deemed to have been included in the quoted prices.

50.0 WORK FRONT:

50.1 The work involved under this Contract may include such works as have to be taken up and completed after other agencies have completed their jobs. The Contractor will be required and bound to take up and complete such works as and when the fronts are available for the same and no claim of any sort whatsoever shall be admissible to the Contractor on this account unless it is solely attributed to the Company or its other contractors and agencies engage at the site. Only extension of completion time limit shall be admissible, if the availabilities of work fronts to the Contractor are delayed due to any reason not attributable to the Contractor.

51.0 COORDINATION WITH OTHER AGENCIES:

51.1 Contractor shall be responsible for proper coordination with other agencies operating at the site of work so that work may be carried out concurrently, without any hindrance to others. Engineer-In-Charge shall resolve disputes, if any, in this regard, and his decision shall be final and binding on the Contractor.

51.2 If and when required for the coordination of the works with other agencies involved at site, the Contractor shall within the scope of work, re-route and/or prepare approaches and working areas as may be necessary at no extra cost to the Company.

52.0 UNDERGROUND AND OVERHEAD STRUCTURES:

52.1 Contractor is deemed to have examined the existing underground and overhead structures and implications thereof while working out his quoted price. No extra payment on this account shall be payable to the Contractor.

53.0 PROVISION OF FABRICATION SHED:

53.1 Contractor shall arrange all weather fabrication sheds at site for all fabrication/ structural steel work, if any, to the satisfaction of Engineer-In-Charge. The requirement of fabrication sheds shall be firmed up in consultation with Engineer-In-Charge for numbers/size of fabrication shed.

54.0 SUB-CONTRACTING AND SPECIALIZED AGENCIES:

54.1 If the Contractor is required to engage a Sub-Contractor for any part of work, then such Sub-Contractors shall have prior proven experience of similar work and shall require specific approval from the Engineer-In-Charge prior to their engagement in the works.

54.2 Following the notification of Letter of Acceptance of bid the Contractor will submit to the Company for approval, the details of Sub-Contractors proposed to be engaged in the works. Contractor shall ensure that very competent and resourceful agencies with proven track record and performance are only proposed for the work to be sub-contracted.

54.3 Sub-contracting the certain specialized items may be permitted with permission from the Engineer-In-Charge. The Contractor shall engage competent and experienced specialized agency (as the case may be) for execution of items like Electrical works, Lifts, BMS, Solar Panel, STP, WTP etc. as required. The Contractor will submit the credentials of the specialized agencies for approval by the Company prior to their engagement.

However, the entire responsibility towards quantity and quality of the entire project including services shall remain with the main Contractor. Nothing extra will be paid on this account.

55.0 QUALITY MANAGEMENT SYSTEM:

55.1 Within thirty (30) days from the award of the Contract, detailed Quality Assurance Programme which is required to be adhered to during the execution of the Contract shall be prepared by the Contractor for various items of works, which shall then be mutually discussed and agreed to by the Engineer-In-Charge.

55.2 The Contractor shall establish document and maintain an effective quality assurance system as outlined in recognized codes.

55.3 Quality Assurance System plans/procedures of the Contractor shall be furnished in the form of a QA manual. This document should cover details of the personnel responsible for the quality assurance, plans or procedures to be followed for quality control in respect of various facets of construction. The quality assurance system should indicate organizational approach for quality control and quality assurance of the construction activities, at all stages of work at site as well as at manufacturer's works and dispatch of materials.

55.4 Engineer-In-Charge or his representative shall reserve the right to inspect/ witness, review any or all stages of work at shop/ site as deemed necessary for quality assurance and / or timely completion of the work.

55.5 The Contractor has to ensure the deployment of Quality Assurance and Quality Control Engineer(s) depending upon the quantum of work. This QA/QC group shall be fully responsible to carry out the work as per standards and all codes' requirements. In case Engineer-In-Charge feels that Contractor's QA/QC Engineer(s) are incompetent or insufficient, Contractor has to deploy other experienced Engineer(s) as per site requirement and to the full satisfaction of Engineer-In-Charge.

55.6 In case Contractor fails to follow the instructions of Engineer-In-Charge with respect to above clauses, next payment due to him shall not be released unless and until he complies with the instructions to the full satisfaction of Engineer-In-Charge.

56.0 TESTS AND INSPECTION:

56.1 Mandatory Tests: The Contractor shall invariably perform the mandatory tests specified in the CPWD Specifications/ relevant BIS codes etc. for all critical work components. However, these tests may be exempted for non-critical works irrespective of gross quantities and prescribed frequencies with the express approval of the Engineer-In- Charge on case-to-case basis.

The Contractor shall carry out the various tests as enumerated in the Technical Specifications and other technical documents that will be furnished to him during the performance of the work.

56.2 All the tests either on the field or at outside laboratories concerning the execution of the work and supply of materials by the Contractor shall be carried out by Contractor at his own cost.

56.3 The work is subject to inspection at all times by the Engineer-In-Charge. The Contractor shall carry out all instructions given during inspection and shall ensure that the work is being carried out according to the Technical Specifications, the other technical documents and the relevant codes of practice etc. furnished to him during the performance of the work.

56.4 The Contractor shall provide for purposes of inspection - access ladders, lighting and necessary instruments at his own cost.

56.5 All results of inspection and tests will be recorded in the inspection reports, proforma of which will be approved by the Engineer-In-Charge. These reports shall form part of the completion documents.

Any work not conforming to execution drawings, specifications or codes shall be rejected forthwith and the Contractor shall carryout the rectifications at his own cost.

56.6 For materials supplied by Company, the Contractor shall carry out the tests, if required by the Engineer-in-Charge, and the Company shall reimburse the cost of such tests at actual to the Contractor on production of documentary evidence plus ten percent (10%) towards Contractor's management charges.

56.7 Statutory fees paid to IBR authorities and for repeat tests and inspection due to failures, repairs etc. such reasons attributable to the Contractor shall be borne by the Contractor.

56.8 Inspection and acceptance of work shall not relieve the Contractor from any of his responsibilities under this Contract.

57.0 INSPECTION OF SUPPLY ITEMS / MATERIALS:

57.1 All inspection and tests on bought-out items, if any, shall be made as required by specifications forming part of this Contract. Various stages of inspection and testing shall be identified after receipt of Quality Assurance Programme from the Contractor/Manufacturer.

57.2 Contractor shall be required to submit recent test certificates for the material being used in works from the recognized laboratories. These certificates should indicate all properties of the materials as required in relevant IS Standards or International Standards.

Contractor shall also submit the test certificate with every batch of material supplied which will be approved by Engineer-In-Charge.

57.3 Inspection calls shall be given for association of the Company as per mutually agreed programme in prescribed proforma with 15 days margin, giving details of equipment and attaching relevant test certificates and internal inspection report of the Contractor. All drawings, general arrangement and other contract drawings, specifications, catalogues etc. pertaining to equipment offered for inspection shall be got approved by Company; final copies shall be made available to Company beforehand for undertaking inspection. The Contractor shall ensure full and free

access to the inspection engineer of Company at the Contractor or their sub-contractor's premises at any time during Contract period to facilitate him to carry out inspection and testing assignments.

57.4 The Contractor/sub-contractor shall provide all instruments, tools, necessary testing and other inspection facilities to inspection engineer of Company free of cost for carrying out inspection.

57.5 Where facilities for testing do not exist in the Contractor's/ sub-contractor's laboratories, samples and test pieces shall be drawn by the Contractor/Sub-Contractor in presence of Inspection Engineer of Company and duly sealed by the latter and sent for tests in Government approved Test House or any other testing laboratories approved by the Inspection Engineer at the Contractor's cost.

57.6 The Contractor shall comply with the instructions of the Inspection Engineer fully and with promptitude.

57.7 The Contractor shall ensure that the equipment/ assemblies/ component of the plant and equipment required to be inspected are not assembled or dispatched before inspection.

57.8 The Contractor shall ensure that the parts once rejected by the Inspection Engineer are not used in the manufacture of the plant and equipment. Where parts rejected by the Inspection Engineer have been rectified or altered, such parts shall be segregated for separate inspection and approval, before being used in the work.

57.9 On satisfactory completion of final inspection and testing, all accepted plant and equipment shall be stamped suitably and inspection Certificate shall be issued in requisite copies for all accepted items. For stage inspection and for rejected items, only inspection memo shall be issued indicating therein the details of observations and remarks.

57.10 If Company or its representative fails to inspect within 30 days after receipt of inspection notice, the Contractor may dispatch material on specific approval of Company. All inspection and tests shall be made as required by the specifications forming part of this Contract. The Contractor shall advise the Company in writing at least fifteen days in advance of the date of final inspection/tests. Manufacturer's inspection or testing certificates for equipment and materials supplied may be considered for acceptance, at the discretion of Engineer-In-Charge. All costs towards testing etc. shall be borne by the Contractor within his quoted rates.

58.0 TESTS OF MATERIALS AFTER DELIVERY:

58.1 The Contractor shall get the cement, steel and other materials brought to the site tested periodically as decided by the Engineer-In-Charge. The cost of all the tests shall be borne by the Contractor. Cement, steel and other materials which do not conform to relevant IS code or requirements of Technical Specifications after testing, shall be rejected and same shall be removed by the Contractor, within 24 hours from the construction site as per the instructions of the Engineer-In-Charge. Under no circumstances rejected materials shall be allowed to remain at the Site beyond stipulated period.

59.0 FINAL INSPECTION:

59.1 After completion of all tests as per specification the whole work will be subject to a final inspection to ensure that job has been completed as per requirement. If any defects noticed in the work is attributable to the Contractor, then the Contractor at his own cost shall attend these, as and when the Company brings them to his notice. The Company shall have the right to have these defects rectified at the risk and cost of the Contractor if he fails to attend to these defects immediately.

60.0 QUALITY AUDIT:

60.1 The Company may decide to conduct quality audit at regular intervals on the works done by the Contractor by way of Rebound hammer tests, etc. The Contractor will be required to provide logistic supports for such activities by way of arranging approaches, ladders, scaffoldings, manpower, etc. to the Company representative for conducting such audits. No extra payment will be made on this account.

61.0 SAMPLE UNIT:

61.1 Contractor shall construct one sample unit for each type of accommodation and get the same approved from the Engineer-In-Charge including approval of fittings, fixture, finishing items and color scheme etc. all complete. Engineer-In-Charge shall give approval for sample unit within fifteen days from the date of its completion in all respects including rectification of defects, if any.

61.2 All fitments and fixtures used, such as electrical fittings, water supply items, sanitary fittings, woodwork and joinery etc. will be as per Contract agreement.

61.3 The sample unit shall act as a guideline for the construction and finishes of all other units/floors.

61.4 The sample unit shall be completed in all respects including all fittings and fixtures within fifteen (15) months from the date of start, failing which a penalty of Rs. 5000/- (Rupees Two Thousand Only) per day of delay shall be levied on the Contractor. Delivery date of the sample unit is non-negotiable irrespective of any hindrance to the works save force- majeure condition, and shall not be shifted on any such account.

62.0 ISSUE OF MATERIALS:

62.1 No material shall be issued to the Contractors which are otherwise to be brought by the Contractor as part of his own supply. However, in exceptional cases, in the interest of work in the event of Contractor's continuous failure to achieve the planned and agreed progress milestones, Company at its sole discretion may issue certain materials to Contractor (after taking prior security deposit) even though it is not required to be supplied in accordance with the terms & condition of the Contract.

In this case Engineer-In-Charge will forward recommendation to Company recording reasons for supply of materials from Company's store on chargeable/ loan basis. The rates charged shall be at landed cost or market price whichever is higher, plus 15% to cover overheads. However, Contractor shall not have any right to request Company to execute this clause and in the event this clause is executed, the Contractor shall not be absolved from his responsibilities and liabilities, as applicable, under this Contract.

63.0 MAKE OF MATERIALS:

63.1 All equipment (if applicable) and materials to be supplied under this Contract shall be from approved vendors as indicated in the "List of Approved Brands" specified in Annexure – X to SCC.

63.2 Where the makes of materials are not indicated in the Bid Document, the Contractor shall furnish details of proposed makes and supplies and supply the same after obtaining Engineer-In-Charge's approval.

63.3 The efforts should be made by the Contractor to use indigenous products. The Contractor should also consider the availability of spares parts/ components for maintenance purposes while proposing any brand/ manufacturer. The materials of any other brand/manufacturer may be proposed for use by the Contractor in case the brands specified in Annexure – X to SCC are not available in the market and/or

Contractor intends to use some other brand better than the brands mentioned in this list. The alternate brand can be used only after the approval of Engineer-In-Charge.

64.0 STRUCTURAL STEEL, TMT BARS, CEMENT:

64.1 The Contractor shall purchase Structural Steel, TMT Bars and Cement from the approved manufacturers as mentioned in in the "List of Approved Brands" included in Annexure – X to SCC.

64.2 Contract Clause for Acceptance of Structural Steel and TMT bar Manufacturers

a) Primary Steel Producers (PSP) in the "list of Approved Brands" namely SAIL, Tata Steel Ltd., RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd. and having valid BIS certificate and listed in the BIS website as on date of procurement of steel shall be allowed for supply of steel (Structural and TMT bars) and Contractor shall procure from those manufacturers only with prior intimation to Engineer-In-Charge.

The Contractor shall procure TMT bars of Fe500/Fe500D/Fe550/Fe550D grade as per design/ drawing, from the enlisted manufacturer(s).

b) In case of non-availability of steel from Primary Steel Producers, change of Steel brand for TMT bars may be permitted from steel producers having Integrated Steel Plants (ISPs) strictly following the procedure laid down at Clause 27.2 of CPWD Works Manual 2014. The rate for providing and laying TMT bars as quoted by the Contractor in the SoQR shall be reduced by (difference of the last procurement price of TMT bars from the enlisted PSP and the first procurement price of TMT bars from the approved ISP) per kg plus 15% against contractor's profit & overhead. However, if the procurement price from the ISP is more than that from the PSP, than nothing extra shall become payable to the Contractor over his quoted rate in the SoQR.

c) Tests after receipt of structural steel at site:

i) In addition to availability of valid BIS license and MTC, testing at site shall be conducted by the Contractor as per following requirement:

ii) For each category/ size of structural steel procured, one sample for every 50MT or part thereof shall be drawn and tested in approved laboratory.

iii) The charges for such testing shall be borne by the Contractor.

d) Tests after receipt of TMT bars at site:

i) In addition to availability of valid BIS license and MTC, testing at site in approved laboratory shall be conducted by the Contractor as per the following requirement:

ii) Under 10mm bars, one sample (dia wise) for each 25MT (or part thereof) for consignment below 100MT and one sample (dia wise) for each 40MT for consignment above 100MT shall be tested.

iii) For 10mm to 16mm bars, one sample (dia wise) for each 35MT (or part thereof) for consignment below 100MT and one sample (dia wise) for each 45MT (or part thereof) for consignment above 100MT shall be tested.

iv) Over 16mm bars one sample (dia wise) for each 45MT (or part thereof) for consignment below 100MT and one sample (dia wise) for each 50MT (or part thereof) for consignment above 100MT shall be tested.

v) The charges for such testing shall be borne by the Contractor.

64.3 Contract Clause for Acceptance of Cement Manufacturers

a) Cement manufacturer in the "List of Approved Brands" having valid BIS certificate and listed in the BIS website as on date of procurement of cement shall be allowed for supply of cement and Contractor shall procure cement from them with prior intimation to Engineer-In-Charge.

b) **Tests after receipt of cement at site**: Each batch of cement (week-wise as mentioned on cement bags) supplied by the Contractor for delivery at site shall be subjected to the tests and analysis required by the relevant Indian Standard Codes. The Contractor shall carry out and bear the cost of all tests and analysis to ensure quality of cement before using in actual works.

65.0 STORAGE OF CEMENT AT SITE:

65.1 The Contractor shall maintain a proper store for storing the cement brought to Site. The cement shall be stored in a suitable weather tight building5 and in such a manner as to permit easy access for proper inspection. The flooring of the storage house, the clearances of cement bags from the side walls etc. shall be as instructed by the Engineer-In-Charge. The cement shall be stored in such a manner as to prevent deterioration due to moisture etc. Cement of different types and brands shall be kept in separate storage.

65.2 All accepted cement stored on the site shall be arranged in batches with date of receipt flagged on it, not more than twelve (12) bags being stacked in a stack and used in the same order as received from the manufacturer. Capacity of Contractor's cement godown shall be sufficient to allow for sampling at least two (2) weeks before the cement is used and ensure uninterrupted work, in accordance with the construction schedule. The Contractor shall maintain a register in which all entries shall be completed day to day showing the quantities received, date of receipt, source of dispatch, type of cement etc. and also the daily cement consumption at site. The register shall be accessible to the Engineer-In-Charge or his representative for his verification.

66.0 THEORETICAL CONSUMPTION OF MATERIAL:

66.1 After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, the theoretical quantity of materials used in the work shall be calculated on the basis and method given hereunder:

(a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in Schedule mentioned at SCC clause 1.8. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the abovementioned schedule/ statement or cannot be derived from the same, then it shall be calculated on the basis of standard formula to be laid down by the Engineer-In-Charge.

(b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design/drawing or as authorized by Engineer-In- Charge, including authorized laps, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

(c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.

(d) For any other material as per actual requirements.

66.2 Over the theoretical quantities of materials so computed a variation shall be allowed as specified in sub-clause 66.3.

For non-scheduled items, the decision of the Engineer-In-Charge regarding theoretical quantities of materials which should have been actually used shall be final and binding on the Contractor.

66.3 Variations permissible on theoretical quantities of various materials shall be as under:

Cement for works with estimated cost put to tender morethan Rs.25 lakh	2% plus/minus
Steel Reinforcement and structural steel sections for eachdiameter, section and category	2% plus/minus
Bitumen (all Works)	2.5% plus/minus
Paint:	
Anti-termite Chemicals	2.5% of theoretical quantity as per CPWD Analysis of Rates/ Manufacturer catalogue
All other materials	Not Applicable

66.4 Recovery shall be made for quantity consumption beyond the permissible variation limits @ 200% (two hundred percent) of the last procurement invoice of the concerned material.

The said action under this clause is without prejudice to the right of the Company to take action against the Contractor under any other conditions of Contract for not doing the work according to the prescribed specifications.

67.0 GENERAL ENVIRONMENT REQUIREMENT:

67.1 The Contractor has to ensure efficient use of natural resources like water, fuel oil and lubricants. The Contractor should ensure proper awareness of workers to maintain a green and clean environment inside/outside the campus. The Contractor must collect and dispose of all the waste and scrap materials at the designated place only as directed by Engineer-In-Charge.

68.0 HSE MANAGEMENT AND OTHER SAFETY REQUIREMENT:

68.1 The Contractor during entire duration of the Contract, shall adhere to the minimum HSE requirement as per the Safety Code as outlined in Annexure – XI to SCC.

Further, the Contractor shall adhere to the health and safety measures in relation to COVID-19 prevention and controls as outlined in Annexure – XII to SCC till such time the place of work is not declared to be pandemic-free by the concerned authority. These conditions shall be adhered to by the Contractor without any extra cost to the Company.

68.2 **Warning/ Caution Boards**: All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", “No Parking”, Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-In-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also, he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer-In-Charge. Nothing extra shall be payable on this account.

68.3 **Sign Boards**: The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the Works, as required by the Engineer-In-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the work, Client/Company, Engineer-In-Charge etc. within 15 days from the date of site handing over. Nothing extra shall be payable on this account. In case of non-compliance/ delay in compliance in this, a penalty @ Rs. 2500/- per day will be imposed which will be recovered from the immediate next RA Bill of the Contractor.

68.4 No inflammable materials including POL shall be allowed to be stored in huge quantity at site. Only limited quantity of POL may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer-In-Charge in this regard. Also, all precautions and safety measures shall be taken by the Contractor for safe handling of the POL products stored.

68.5 The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labour laws and other regulations applicable to the works, at his site office. He should also keep at site at least one set of BIS Codes and other relevant codes at site and produce the same if asked for by Engineer-In-Charge. In case of non-compliance, these codes will be purchased from the Market and actual cost of purchase will be recovered from the next RA Bill of the Contractor.

68.6 **Usage of quality Personal Protection Equipments (PPEs)** from approved vendors. PPEs would include amongst others the following items:

- ✓ Safety Helmets
- ✓ Hearing Protection
- ✓ Respiratory Protection
- ✓ Eye Protection
- ✓ Protective Gloves
- ✓ Safety Footwear
- ✓ High Visibility Clothing (Jacket) with approved Logo

All the items should be got approved before issued to the use in the work. Safety Jacket should have OIL Logo as per the size approved.

68.7 The Contractor shall provide all the PPE (Personnel Protective Equipment) and safety appliances required to carry out the job to all the workmen deployed by the Contractor and also ensure that his workmen use those PPE and safety appliances while on the job. The Contractor shall not pay any cash amount in lieu of PPE to the workers/sub- contractors and expect them to buy and use during work. If the Contractor fails to ensure provision of safety appliances and its workmen do not use the PPE and safety appliances as needed for safe working, the Engineer-In-Charge may ask the Contractor to stop the work and comply with safety requirements first. The Contractor shall at all time maintain a minimum of 10% spare PPEs and safety appliances and properly record and show to the Engineer-In-Charge during the inspections. Failing to do so shall invite appropriate compensations as per the provisions of under Workmen's Compensation Act 1923 as amended from time to time in addition to penalty under sub-clause 68.8.

68.8 Non-compliance to the safety guidelines including non-use of helmet, safety harness, lifeline, safety shoes etc. and lack of proper staging/scaffolding, safety net use in the works shall entail a penalty of Rs.1,000/- (Rupees One Thousand only) for each instance of lapse, substantiated by date-stamped photographic evidence of such lapses brought to the notice of the Engineer-In-Charge.

68.9 It is always the duty of the Contractor to provide required PPEs for all visitors. Towards this, the required quantity of PPEs shall be kept always at the security post.

Safety Helmet Colour Code (Every Helmet should have the OIL Logo* affixed / painted)	**Person to use**
White	OIL/ Company Officials, All Designers, Architect, Consultants etc.
Violet	Main Contractors (Engineers / Supervisors)
Blue	All Sub-contractors (Engineers / Supervisors)
Red	Electricians (Both Contractor and Sub-contractor)
Green	Safety Professionals (Both Contractor and Sub-contractor)
Orange	Security Guards / Traffic marshals
Yellow	All workmen
White (with "VISITOR" sticker)	Visitors

Note: Logo*

(i) Logo shall have its outer dimension 2" x 2" and shall be conspicuous.
(ii) Logo shall be either painted or affixed.
(iii) No words shall come either on Top / Bottom of Logo.

69.0 LABOUR, LABOUR LAWS AND SITE REQUIREMENTS:

69.1 Labour Laws to be complied by the Contractor:

69.1.1 Labour License: The Contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work and furnish copy of the same to the Company.

The Contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

69.1.2 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.

69.1.3 Any failure to fulfill these requirements shall attract the penal provisions of this Contract arising out of the resultant non-execution of the work.

69.1.4 No labour below the age of fourteen years shall be employed on the work.

69.2 Payment of wages:

69.2.1 The Contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the 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.

69.2.2 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.

69.2.3 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 Contractor's Labour Regulations made by Government from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly 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.

69.2.4 (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-fulfillment 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.

In the case of Union Territory of Delhi, however, as the all-inclusive minimum daily wages fixed under Notification of the Delhi Administration No.F.12 (162) MWO/DAB/43884-91, dated 31-12-1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.

69.2.5 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.

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

69.2.7 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.

69.2.8 Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the Contractor to the workmen directly without the intervention of Jamadar and that Jamadar

shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.

69.3 **Safety Code**: In respect of all labour directly or indirectly employed in the work for the performance of the Contractor's part of this Contract, the Contractor shall at his own expense arrange for the safety provisions as per Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the Contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs.1000/- for each default and in addition, the Engineer- in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the Contractor. The contractor shall be completely held responsible for any mishap at site due to insufficient safety measures.

69.4 The Contractor shall submit by the 4th and 19th of every month, to the Engineer-In-Charge, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:

1) the number of labourers employed by him on the work,
2) their working hours,
3) the wages paid to them,
4) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
5) The number of female workers who have been allowed maternity benefit according to SCC Clause 69.6 and the amount paid to them;

failing which the Contractor shall be liable to pay to the Company, a sum not exceeding Rs.1000/- for each default or materially incorrect statement. The decision of the Engineer- In-Charge shall be final in deducting from any bill due to the Contractor, the amount levied as fine and is binding on the Contractor.

69.5 In respect of all labour directly or indirectly employed in the works for the performance of the Contractor's part of this Contract, the Contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed under this Contract.

69.6 Leave and pay during leave shall be regulated as follows:

1. Leave:
   a) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,

   b) in the case of miscarriage - up to 3 weeks from the date of miscarriage.

2. Pay:
   a) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.

   b) In the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

4. The Contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in Appendix-I and II, and the same shall be kept at the place of work.

69.7 In the event of the Contractor(s) committing a default or breach of any of the provisions of the Company Contractor's Labour Regulations and Model Rules attached at Annexure – XIII to SCC for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Company a sum not exceeding Rs.1000/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the Contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.1000/- per day for each day of default subject to a maximum of 5% of the Contract Value. The decision of the Engineer-In-Charge shall be final and binding on the Contractor.

Should it appear to the Engineer-In-Charge that the Contractor is not properly observing and complying with the provisions of the Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R& A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the Contractor (hereinafter referred as "the said Rules") the Engineer-In-Charge shall have power to give notice in writing to the Contractor requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the Contractor shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-In-Charge shall have the power to provide the amenities herein before mentioned at the cost of the Contractor. The Contractor shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-In-Charge shall have power to give notice in writing to the Contractor requiring that the said huts and sanitary arrangements be remodeled and/or reconstructed according to approved standards, and if the Contractor shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-In-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the Contractor.

69.8 **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, the Company. is obliged to pay compensation to a workman employed by the Contractor, in execution of the works, the Company will recover from the Contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Company under sub- section (2) of Section 12, of the said Act, the Company 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 the Company to the Contractor whether under this Contract or otherwise. Company 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 the Company full security for all costs for which Company might become liable in consequence of contesting such claim.

69.9 Ensuring Payment and Amenities to Workers if Contractor fails: ln 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, the Company 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 and the rules under sub-clause 69.10 or under the 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 the contractors, the Company will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Company under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, the Company 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 the Company to the Contractor whether under this Contract or otherwise the Company 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 Company full security for all costs for which the Company might become liable in contesting such claim.

69.10 The Contractor shall at his own cost provide his labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer-In-Charge.

a) i) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sqm. (30 sq.ft.) for each member of the worker's family staying with the labourer.

ii) The Contractor shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.

iii) The Contractor shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.

iv) The Contractor shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened

b) i) All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-In-Charge. In case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer-In-Charge and the Contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.

ii) The Contractor shall provide each hut with proper ventilation.

iii) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.

iv) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the

availability of site with the approval of the Engineer-In-Charge. Back-to-back construction will be allowed.

c) **Water Supply** - The contractor shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor shall also at his own cost make arrangements for laying pipe lines for water supply to his labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.

d) Contractor shall make his own arrangement for the camp in case space for the same is not sufficient within the project site. The site selected for the camp shall be high ground, removed from jungle without any cost to the Company.

e) **Disposal of Excreta** - The Contractor shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the Contractor shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee/authority for the removal of the excreta. All charges on this account shall be borne by the Contractor and paid direct by him to the Municipality/authority. Contractor shall provide one sweeper for every eight seats in case of dry system.

f) **Drainage** - Contractor shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.

g) Contractor shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.

h) **Sanitation** - Contractor shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

69.11 The Engineer-In-Charge may require the Contractor to dismiss or remove from the site of the work any person or persons in the Contractors' employment upon the work who may be incompetent or misconduct himself and the Contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labourers have an easy access to the individual houses, the Contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour.

69.12 It shall be the responsibility of the Contractor to see that the building under construction is not occupied by anybody unauthorizedly 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 up to 5% of Contract 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 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.

69.13 Labour Relations: In case of labour unrest/ labour dispute arising out of non-implementation of any law, the responsibility shall solely lie with the Contractor and he shall remove/resolve the same satisfactorily at his cost and risk.

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labour and to preserve peace and protection of persons and property in the neighbourhood of the Works against such conduct.

69.14 Employment of Local Labour/ Land Looser: The Contractor shall ensure that local labour skilled and/or unskilled, to the extent available shall be employed in this work. Special preference shall be given to persons and/or dependents of persons whose land has been acquired for the project work. In case of non-availability of suitable labour in any category out of the above persons, labour from outside may be employed.

The Contractor shall not recruit personnel of any category from among those who are already employed by the other agencies working at site but shall make maximum use of local labour available.

69.15 Contractor's Labourers to Leave Site on Completion of the Work: Contractor's labourers must leave the location of the project site/township after the work is tapered/ completed to avoid creation of a slum in the areas adjoining the project/township.

70.0 EPF & ESI:

70.1 The Contractor shall strictly comply with the provisions of Employees Provident Fund Act and Employees State Insurance Act and register themselves with all the concerned authorities before commencing work. The Contractor shall deposit Employees and Employers contributions to the RPFC & ESIC every month. The Contractor shall furnish along with each running bill, the challan/ receipt for the payment made to the RPFC & ESIC for the preceding month. The Contractor shall furnish the code number allotted by the RPFC & ESIC Authority to the Engineer-In-Charge before commencing the work.

70.2 In case the relevant RPFC & ESIC Authority's receipt/challans referred above are not furnished, Company shall deduct 2% (two percent) of the payable amount from the Running Account Bill and retain the deducted amount as a security for the contribution on those accounts. Such retained amounts shall be released to the Contractor only on production of challan/receipts of the relevant RPFC & ESIC Authority for the period covered by the related deduction.

Contract amount shall be deemed to include EPF and ESI contributions of the Principal Employer viz. the Company as well and no reimbursement shall be made to the Contractor against these contributions.

71.0 FUEL REQUIREMENT OF WORKERS:

The Contractor shall be responsible to arrange for the fuel requirement of his workers and staff without resorting to cutting of trees and shrubs. Cutting of trees and shrubs is strictly prohibited for this purpose.

72.0 POLLUTION CONTROL / C&D WASTE GUIDELINES:

72.1 The Construction material of any kind stored at the site will be fully covered in all respects so that it does not disperse in the air in any form.

72.2 The construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or

the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.

72.3 The dust emissions from the Construction site should be completely controlled and all precautions taken in that behalf.

72.4 The vehicles carrying construction material and construction debris of any kind should be cleared before it is permitted to ply on the road after unloading of such material.

72.5 Every worker at the construction site involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.

72.6 The Contractor shall be under obligation to provide all medical help, investigation and treatment to the workers involved in the construction of building and carrying of construction material and construction debris relatable to dust emission.

72.7 It shall be the responsibility of Contractor to transport construction material and debris waste from the construction site to dumping site or any other place in accordance with rules and orders of the authority concerned.

72.8 The malba during the construction period will be removed at least on weekly basis or more frequently as per the requirements and norms of Local bodies, National Green Tribunal (NGT), State Pollution Control Board (SPCB) etc. for which nothing extra shall be paid to the Contractor. If the above are not followed, the Contractor will be solely responsible for all the consequences including penalties imposed by the Govt. Bodies.

72.9 During the construction period, it will be mandatory on the part of the Contractor to properly screen the construction site off the roads and adjacent structures / Buildings by means of erecting Screen walls of height as specified and desired by the local body and any other concerned Govt. Body which are to be painted to avoid any Sort of unpleasant looks. In addition to this, a net or some other protective material (as per norms of local Govt body) shall be placed / hoisted at the facades of the building to ensure that all the falling or any other materials etc. remain within the protected areas for which nothing extra shall be paid to the Contractor.

72.10 All the prevailing rules and notifications of NGT, concerned SPCB, Min of Environment, Forest & Climate Change etc. are strictly to be followed by the Contractor and the Company will not be responsible for any punitive action taken by the above Govt. Bodies in case of any default by the Contractor who will be solely responsible for any of the above penalties imposed by any of the concerned Govt. Bodies for which nothing extra shall be paid to the Contractor.

72.11 The Contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the Contractor shall divert traffic to nearby paved areas.

72.12 The Contractor shall ensure that the construction material is covered by tarpaulin to prevent escape of dust into the air. The Contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.

72.13 In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained

notwithstanding any other provisions elsewhere in the Contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any. Further, no claims for hindrance shall be entertained on this account.

72.14 Pollution control norms:

Since the building is to be constructed in populated area, all necessary measures are to be taken to control pollution.

72.14.1 Construction Vehicles, Equipment and Machinery

a) All vehicles, equipment and machinery to be procured for construction shall conform to the relevant Bureau of India Standard (BIS) norms,

b) Emission from the vehicles must conform to environmental norms,

c) Dust produced from the vehicular movement and other site activities is to be mitigated by sprinkling of water,

d) Noise limits for construction equipments shall not exceed 75 dB(A), measured at one meter from the edge of the equipment in free area, as specified in the Environment Protection Act,1986, schedule VI part E, as amended on 9th May,1993. The maximum noise levels near the construction site should be limited to 65 dB (A) Leq (5 min) in project area.

72.14.2 Construction Wastes Disposal

a) The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer-In-Charge.

b) Contractor shall get approved the location of disposal site prior to commencement of the excavation or site clearing of the rubbish from any section of the project location.

c) Contractor shall ensure that any spoils of material / construction waste/ rubbish will not be disposed-off in any municipality solid waste collection bins.

72.14.3 Procurement of Construction Materials

a) All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.

b) Wheel tyres of all vehicles used by of the Contractor, or any of his sub-contractor or materials suppliers shall be cleaned and washed clear of all dust/mud before leaving the work premises. This shall be done by routing the vehicles through tyre washing tracks.

c) Contractor shall arrange for regular water sprinkling at least twice a day (i.e., morning and evening) for dust suppression of the construction sites and unpaved roads used by his construction vehicles.

72.14.4 Water Pollution

a) The Contractor shall take all precautionary measures to prevent the waste water during construction to accumulate anywhere.

b) The waste water arising from the works is to be disposed-off in the manner that is acceptable to the Engineer-In-Charge.

72.14.5 Air and Noise Pollution

a) Contractor shall use dust screens and sprinkle water around the construction site to arrest spreading of dust in the air and surrounding areas.

b) Contractor shall ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that emission levels comply with environmental emission standards/norms.

c) For controlling the noise from Vehicles, Plants and Equipments, the Contractor shall confirm the following:
   i) All vehicles and equipment used in construction will be fitted with exhaust silencers.

   ii) Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective must be replaced by the Contractor immediately.

   iii) Noise emission from compactors (rollers) front loaders, concrete mixers, cranes (movable), vibrators and saws should be less than 75 dB(A).

   iv) As per the standards/guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission in dB(A) from DG Set (15-500 KVA) should be less than 94+10 log 10 (KVA). The standards also suggest construction of acoustic enclosure around the DG Set and provision of proper exhaust muffler with insertion loss of minimum 25 dB(A) as mandatory.

72.14.6 Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers.

72.14.7 Full time workers residing on site should be provided with clean and adequate temporary hutment.

72.14.8 Adopt measures to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).

72.14.9 Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base. Add surface gravel to reduce source of dust emission. Limit the amount of fine particles (smaller than 0.075mm) to 10-20%. Limit vehicular speed on site 10km/hr. Nothing extra will be payable for this.

72.14.10 All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust/particulate emissions.

72.14.11 Spills of dirt or dusty materials shall be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean – up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should

be contained/cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.

72.14.12 Ensure that water spraying is carried out by wetting the surface by spraying water on

a) Any dusty material

b) Areas where demolition work is carried out.

c) Any unpaved main-haul road and

d) Areas where excavation or earth moving activities are to be carried out

72.14.13 The contractor shall ensure the following:

a) Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.

b) Covering stockpiles of dusty material with impervious sheeting.

c) Covering dusty load on vehicles by impervious sheeting before they leave the site.

d) Transferring, handling/storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.

72.14.14 Clear vegetation only from areas where work will start right away.

72.14.15 Provide sheet covering/barricading of site of not less than 3m height along the site boundary, next to a road or other public area. Nothing extra will be paid for this.

72.14.16 The Contractor shall provide experienced personnel with suitable training to ensure that these methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be used on–site should be made available for the inspection and approval of the Engineer-In-Charge to ensure that these are suitable for the project.

72.14.17 Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed-off to Municipal Corporation/local bodies dump yard and landfill sites.

72.14.18 To preserve the existing landscape and protect it from degradation during the process of construction. Select proper timing for construction activity to minimize the disturbance such as soil pollution due to spilling of the construction material and its mixing with rainwater. The construction management plan including soil erosion control management plan shall be prepared accordingly. The application of erosion control measures includes construction of gravel pits and tyre washing bays of approved size and specification for all vehicular site entry/exits, protection of slopes greater than 10%. Sedimentation Collection System and run-off diversion systems shall be in place before the commencement of construction activity. Preserve and protect the existing vegetation by not-disturbing or damaging to specified site areas during construction.

72.14.19 The Contractor should follow the construction plan as proposed by the Engineer-In- Charge / landscape consultant to minimize the site

disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site.

72.14.20 Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners and petroleum products.

72.14.21 A soil Erosion and Sedimentation Control Plan (ESCP) should be prepared prior to construction and should be applied effectively.

72.14.22 The Contractor shall ensure that no construction leaches (Ex: cement slurry) is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The Contractor shall follow requisite measures for collecting drainage water run- off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale etc. shall be constructed to carry the pollutant-laden water directly to the treatment device or facility (municipal sewer line).

72.14.23 All lighting installed by the Contractor around the site and at the labour quarters during construction shall be CFL bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed otherwise.

Minimum allowable luminous efficacy of all the lamps shall be as per the table below:

Light Source	**Minimum allowable luminous efficacy (lm/W)**
CFL (Compact Fluorescent Lamp)	50
FL (Fluorescent Lamp)	75
MH (Metal Halide)	75
HPSV (High Pressure Sodium Vapour)	90
LEDs (Light Emitting Diodes)	50

72.15 The Contractor will be fully responsible for the payment of any penalties imposed by the local body or any other Govt Agency, for noncompliance of their rules and directions.

73.0 MAINTENANCE OF REGISTERS:

73.1 All the registers for tests of material/works to be carried out at construction site or in outside laboratories shall be maintained at Site Office which will submitted to authorized representative of the Engineer-In-Charge of works for periodic checking & records.

73.2 The test registers to be maintained for the Works are:

a) Materials at site account register
b) Master test registers
c) Soil Density/Compaction register
d) Inspection register
e) Drawing register
f) Any other register as may be required/ as directed by Engineer-In-Charge.

All the entries in the register will be made by the designated engineering staff of the Contractor and same shall be regularly reviewed by the authorized representative of the Engineer-In-Charge.

Contractor shall be responsible for safe custody of all the test registers.

73.3 Submission of all test registers, material at site register along with each alternate running account bill and final bill is mandatory. These registers shall be duly checked by the authorized representative of the Engineer-In-Charge.

73.4 Hindrance Register: An important Register to be maintained is the Hindrance Register which will be an essential document for dealing with applications for extension of time by the Contractor. The Contractor shall maintain such Registers and Records in the format laid down by the Engineer-In-Charge.

73.5 Site Order Book: A site order book shall be kept at the site of the work. As far as possible, all orders/matters regarding the works are to be entered in this book. All entries therein shall be signed by the Engineer-In-Charge or his representative and the Contractor or his representative. In important cases, the Engineer-In-charge will countersign the entries, which have been made. The site order book shall not be removed from the work site except with written permission of the Engineer-In-Charge and the Contractor or his representative shall be bound to take note of all instructions and directions meant for the Contractor as entered in the site order book without having to be called on separately to note them. The Contractor shall ensure compliance of the noting in site order book within three days of the noting. In case of failure to do so, the corresponding work shall be stopped and work already done shall not be accepted.

74.0 DOCUMENTATION:

74.1 Completion Documents

i) The following documents shall also be submitted by the Contractor in triplicate (unless otherwise specified elsewhere in the Bid Document) as part of completion documents:
   a) All requirements as specified in the respective sections.
   b) Material appropriation statement as required.
   c) Material test and analysis certificate and chemical analysis of weld deposits (for the material supplied by the Contractor) [if applicable].
   d) Approved calibration charts along with a reproducible on polyster film (if required).
   e) IBR Certificate wherever applicable.
   f) **Three sets of "As Built" construction drawings** showing therein the as built conditions of the work duly approved by Engineer-In-Charge along with one set of soft copy of drawing / documents prepared by Contractor.
   g) Other documents as mentioned in Technical Specification and GCC.

74.2 Site Co-ordination Meetings: The Contractor will attend the Site Co-ordination Meetings with Engineer-In-Charge/Site Engineer, the Consultant and other Contractors as fixed by the Engineer-In-Charge from time to time to discuss all issues relating to the works in general and progress and quality in particular. Such meeting shall be properly documented and maintained in record for reference in future, as may be applicable. All costs incidental to such interaction shall be borne by the Contractor.

74.3 Progress Photographs: During the Construction stage the Contractor shall take adequate number of coloured photographs showing the progress of various stages of the Work on a fortnightly basis and as directed by the Engineer-In-Charge. Size of photographs will be 125mm x 250 mm. Photographs shall be supplied with negatives

to the Engineer-In-Charge. Each photograph shall be attested with date of photograph, location of work and brief description of what it shows. These photographs shall be from locations as fixed by the Engineer-In-Charge at start of work.

75.0 DEFECT LIABILITY:

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within **twelve (12) months** after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper materials or workmanship the Contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the Contractor, or from his Security Deposit or the proceeds of sale thereof or of a sufficient portion thereof. The Security Deposit of the Contractor shall not be refunded before the expiry of **twelve (12) months** after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-Charge, half of the security deposit is sufficient, to meet all liabilities of the Contractor under this contract, half of the Security Deposit will be refundable after six (6) months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

76.0 GOVERNMENT OF INDIA NOT LIABLE:

76.1 It is expressly understood and agreed by and between the Contractor and the Company that the Company is entering into this Contract solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that the Government of India is not a party to this Contract and has no liabilities, obligations or rights there under. It is expressly understood and agreed that the Company is an independent legal entity with power and authority to enter into Contract, solely in its own behalf under the applicable laws of India and general principal of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Company is not an agent, representative or delegate of Govt. of India. It is further understood and agreed that the Govt. of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, Contractor hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Govt. of India arising out of this Contract and covenants not to sue to Govt. of India as to any manner, claim, cause of action or thing whatsoever arising of or under this Contract.

77.0 OPERATION AND MAINTENANCE (Wherever applicable and included in SoQR):

77.1 This scope of work essentially indicates Running Operations & Maintenances services pertaining to upkeep & smooth working of the equipments supplied under the Contract. Required Preventive Maintenance will be carried out for the equipment's as per benchmarked maintenance practices / OEM manuals without any cost to the Company during the Defect Liability Period.

77.2 Contractor shall provide day-to-day/round-the-clock operator(s) for the installed equipments during the defect liability period for which payment shall be made by the Company against relevant item(s) in the SoQR (applicable when included in the SoQR).

Contractor shall provide and maintain proper & efficient technical support personnel in the premises by deploying sufficient number of trained, experienced and competent technical personnel. All statutory requirements like PF, ESIC etc. for such personnel will be met by the Contractor. Necessary training to the staff will be provided by the Contractor in order to carry out day to day activities required in Operations that includes operations and monitoring of Utility services equipment, logging of all related parameter pertaining to the equipment, assessing the data and initiating necessary actions depending on the analysis of data/records.

77.3 For items like Roof Top Solar PV Plant, Lifts, HVAC/Air Conditioning system, CCTV System, BMS, Sewage Treatment Plant (STP), Water Treatment System (WTP), Genset, Fire alarm/detection & fighting system, sub-station equipment etc., the Contractor shall perform the scheduled maintenance of the equipment including supply of the maintenance related consumable and spares required thereto during the defect liability period free of cost and it shall commence from formal date of issuance of the certificate of completion.

Operation related consumables such as Diesel and Lubricating Oil, Alum & Chemicals for STP/WTP etc. will be provided by the Company free of cost based on actual consumption trends.

77.4 The Contractor shall also agree to enter into sub-contracts for Annual Maintenance Contracts separately upon culmination of the Defect Liability Period for additional minimum period of 3 years and extendable up to full machine/plant's useful life (if applicable/included in the SoQR). These contracts may however be short closed by the Company at any point of time with minimum 6-month notice period.

77.5 During post-Defect Liability Period Operation and Maintenance phase, the Contractor shall carry out maintenance services at specified intervals as per the OEM service / operations manuals and coordinate with AMC sub-contractors (OEMs) for Break down maintenance and follow up as required. Continuous efforts will be made to minimize the down time of equipment. Further the Contractor shall continue to carry out the day-to- day/round-the-clock operations of the equipment as detailed in sub-clause 77.2 above for which payment shall be made by the Company against relevant item(s) in the SoQR (if applicable/included in the SoQR).

Materials, Consumables & Spares: All the consumable material such as material required for cleaning of equipment and machinery, minor repairs of doors windows, furniture, plumbing, routine checking and maintenance of the plumbing, drainage, sewerage, fire- fighting system etc. shall be provided by the Contractor at no extra cost to the Company over and above the Annual Maintenance Contract.

All major items for operational requirement such as Diesel and lubricating oil, Alum & chemicals for the treatment plants etc. including Spares/parts needed for major repairs and maintenance will be provided by the Company.

Annual Maintenance Contracts: Contractor will have AMC s for all major equipment. Coordination & monitoring required for management and execution of the Annual Maintenance contractors will be done by the contractor.

Scheduled servicing of major machinery/equipment such as Lifts, Gensets, HVAC/Air Conditioning system, Solar PV plant etc. will be covered under the respective AMCs with the OEMs by the Contractor within his Annual Maintenance Contract price with the Company.

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ANNEXURES TO SPECIAL CONDITIONS OF CONTRACT

ANNEXURE-I TO SCC
(Ref: SCC Clause 4)

SCOPE OF WORK

1.0 The scope of work in general includes scope of work specified in Technical Specifications, Drawings and Schedule of Prices enclosed in the Bid Document. Further, it includes any other work not specifically mentioned but required to complete the work as per specifications, drawings and instructions of Engineer-In-Charge, which could be reasonably implied as essential from the contents of the Bid Document.

2.0 Scope of work shall be read in conjunction with item description of Schedule of Prices and Contractor's scope shall include all activities of work specified in the item description therein.

Contractor's Rates shall include all cost for the performance of the item considering all parts of the Bid Document. In case any activity or supply, though specifically not covered in description of item under Schedule of Prices, is but required to complete the work which could be reasonably implied/inferred from the content of Bid Document including the AFC/GFC drawings, the cost for carrying out such activity of work shall be determined by the Engineer-In-Charge under SCC clause on Change Order.

3.0 The general scope of work is as detailed below:

a) The scope of works to be delivered under this bid is indicated below. Any additional work not covered herein and considered essential for safe, efficient and satisfactory commissioning and functioning of the proposed accommodations/ buildings/ structures and services etc. shall be provided by the successful bidder, as directed by the Engineer-In-Charge.

i) Allied/ Residual design engineering wherever required and as indicated in bid document;

ii) Execution of all structural, civil, water proofing, architectural and façade works including roof treatment, flooring and finishing etc. all complete;

iii) Internal water supply & sanitary installation works including water supply distribution and treatment system (WTP), and sewerage network and treatment system (STP), and roof drainage with rain water harvesting;

iv) Internal electrical installations including FRLS copper wirings, Lightening conductor, Telephone conduits, Central call bell system and Computer conduits, CCTV and AV systems;

v) Lift

vi) HVAC/Air Conditioning system with Air Purification system.

vii) Fire detection & alarm system and Fire Fighting with sprinkler system,

viii) External service connections for civil and electrical services including pavements, drainage and sewage disposal system, Electric Substation with HT/LT Panels & Transformer, U.G. Cabling to & fro feeder pillar and buildings; Street Lighting using

ix) U.G. Cables etc.,

x) Grid interactive roof top solar photo voltaic power generation system including space frame supports,

xi) Landscaping and Horticulture works,

xii) Signages for the building, common and individual areas,

xiii) UG Sump with Pump Room with Water Treatment Plant and Sewage Treatment Plant,

xiv) Boundary wall and Entrance and Exit gates with Guard rooms,

xv) Off street and basement parking, and

xvi) Office, Training, Guest room Furnitures and fixtures

xvii) Operation and Maintenance of the Equipments during Defect Liability Period plus three (3) years beyond Defect Liability Period.

xviii) Any and all items of works included in various Parts/ Sub-Parts of the Schedule of Quantities & Rates (SoQR).

b) Following activities shall be performed by the successful bidder for his due performance in the Contract:

i) Project Management including liaising for obtaining mandatory approvals from local bodies/ authorities required for commencing the work,

ii) Pre-construction survey and layout, Sub-soil investigation (if required) and initial pile load tests (if required) including dismantling and demolition of the existing structures at the project site interfering with the construction activities.

iii) Detailed/Residual Design, Engineering and drawings wherever required.

iv) Procurement.

v) Transportation.

vi) Construction.

vii) Fabrication.

viii) Installation and Erection, hook-up and testing at site including mobilization and demobilization of all personnel, construction plant and equipment, etc.

ix) Pre-commissioning.

x) Start up and commissioning.

xi) Post-construction survey and submission of 'As-Built' drawings.

xii) Operation and Maintenance of the facilities and equipments installed.

xiii) All necessary activities essential for achieving GRIHA 4-Star rating for the Project.

c) It shall be obligatory on the successful bidder to comply the following during execution of the works:

i) Arrange for required men, machines, materials, and other resources and execute the work in time as per the Contract requirements and achieve GRIHA 4-Star rating.

ii) Carry out detailed/residual design and engineering and prepare any further details and shop drawings for approval of the Company.

iii) Plan and ensure safety and security at site.

iv) Rectify defective work as instructed.

v) Follow all laws related to labour, environment etc.

vi) Submit monthly invoices for payment with all necessary documents.

vii) Maintain records, copies of drawings etc.

viii) Maintain the completed works during the Defect Liability Period/ Maintenance Period.

Clear site and obtain Company's completion certificate.

d) The Contractor shall remove debris and waste material, created as a result of the construction works, on a daily basis from respective premises.

e) Work to be executed shall include but not limited to the following:

i) All enabling works e.g. provision of site office, temporary roads & drains, storage facilities for cement, steel & other materials, provision of water and electricity for construction, demolition and site clearance works including survey and sub-soil investigation works, workshop etc. which are required for efficient working and timely completion of works.

ii) Testing laboratory at site which is required for carrying out routine tests of materials and workmanship as part of Quality Assurance Plan.

iii) Submission of all original test certificates & records of testing, all warranties, performance guarantees in favour of the Company.

iv) Any other works which may be necessary for completion of the proposed accommodations/ buildings/ structures and services etc.

f) All other requirements are spelt out elsewhere in the Bid Document.

4.0 Unless otherwise specified, it shall be the responsibility of the contractor for disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved, without any additional cost to the Company (OIL).

SCOPE OF SUPPLY

1.0 **COMPANY'S SCOPE OF SUPPLY**: NIL

2.0 **CONTRACTOR'S SCOPE OF SUPPLY**:

Allied/Residual design and engineering of the intended building infrastructures and equipment including Procurement and Supply of all material (consumables/ non-consumables) including all tools and tackles required for the construction and completion of all works under the Contract shall be the responsibility of the Contractor within the quoted rate. For the detailed Scope of Work & Supply, the Bidder shall follow the Technical Part of the Bid Document. Drawings attached with the Bid Document are indicative in nature only to give the Bidder an idea of the Company's requirement. For residual design and detailing the Scope of Work along with the Technical Specifications, Drawings and Schedule of Prices shall govern. Movable furniture and fixtures (including/excluding partitions) indicated in the drawings are/ are not in the scope of supply under this Contract.

TIME SCHEDULE

Name of Work	Time Schedule
Construction of Training Centre Cum Holiday Home for Oil India Limited at Britonia, Porvorim, Goa	24 (Twenty-Four) Months to be reckoned from the Date of Commencement of the Work

Note:

1. The time indicated is for completing all the works in all respects as per the scope of work, specifications, codes, drawings and instructions of Company Representative and submission of all reports as mentioned in the Technical Specifications.

2. The time schedule shall be reckoned as noted above and shall be the essence of the Contract. Delay in physical work completion beyond the scheduled time due to default on part of the Contractor shall entail Liquidated Damages.

TABLE OF MILESTONE(S)

Sl. No.	Description of Mile Stone (Physical)	Time allowed in Months (from date of start)	% Amount of tendered cost to be with-held in case of non- achievement of milestone
1	Completion of RCC Sub-structure of the Building (excluding services)	6 months	1% of tendered value of work
2	Completion for framed RCC Super- structure of the Building (including infill masonry)	14 months	1% of tendered value of work
3	Completion of Plastering/Rendering, Flooring & Dado, Door Windows	20 months	1% of tendered value of work
4	Completion of all finishing, development works including equipments, other supplies and services for Entire Work complete in all respect as per Contract	24 months	As per GCC clause 12

Note:

The milestone, as mentioned above is to be achieved for Sl. No. 1 to 3. Overall physical milestone has to be achieved for Sl. No. 4. In case of achievement of any milestone, the amount withheld for non-achieving of previous milestones will be released.

ANNEXURE-IV TO SCC
(Ref: SCC Clause 9)

MEASUREMENT OF WORK

1.0 **GENERAL**:

1.1 The mode of measurement shall be as mentioned in relevant standard specification incorporated in the Bid Document. Any other mode of measurements not covered in above specifications shall be followed in accordance with relevant BIS codes /SoQR/ Specifications etc. and/or as decided by Engineer-In-Charge. Only the relevant mode(s) of measurement as detailed in this Section shall be applicable for the items covered in the scope of work / SoQR of the Bid Document.

1.2 Payment will be made on the basis of joint measurements taken by Contractor, verified & certified by the Engineering & Project Management Consultant and accepted by Engineer-In-Charge. Measurement shall be based on physical measurements of works incorporated as per the "Approved for Construction" drawings, to the extent that the work conforms to the drawings.

1.3 Wherever work is executed based on instructions of Engineer-In-Charge or details are not adequate in the drawings, physical measurements shall be taken by Contractor in the presence of Engineering & Project Management Consultant/ Engineer-In-Charge.

1.4 All measurements having financial value and being claimed by the Contractor shall be entered and compiled in the shape of the Computerized Measurement Book (SCC Clause 16) by the Contractor and Abstract of work done shall be drawn up thereon. Contractor shall subsequently prepare and submit his on-account bills in the format specified by the Engineer-In-Charge.

1.5 Measurements of weights shall be in Kilogram and linear measurements shall be in Metres rounded off as per relevant BIS codes.

1.6 No other payment either for temporary works connected with this Contract or for any other item such as weld, shims, packing plates etc. shall be made. Such items shall be deemed to have been included for in the rates quoted by the Contractor for the concerned items.

1.7 Measurements will be made for various items under SoQR on the following basis as indicated in the unit column

i)	Weights	Kg/ MT (if SoQR so indicates)
ii)	Length	Mtr (Metre)
iii)	Number	Nos
iv)	Volume	Cum
v)	Area	Sqm

1.8 Wherever the unit of items has been indicated as lumpsum, the payment shall be made on lumpsum basis on completion & no other mode of measurement shall be applicable.

1.9 The measurement for cable laying shall be made on the basis of length actually laid from lug to lug including length of loops provided.

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

procedure set forth in the Contract notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom.

1.11 For the purpose of operation of various items included in the SoQR, the following works shall be treated as works relating to foundation unless & otherwise defined in the SoQR item nomenclature/description:

i) For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level (plinth) whichever is lower.

ii) For abutments, piers and well staining: All works up to 1.2 metres above the bed level.

iii) For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs/tanks and other elevated structures: All works up to 1.2 metres above the ground level.

iv) For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 metres above the ground level.

v) For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.

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

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

1.13 If considered expedient and necessary by the Engineer-In-Charge to record/enter the measurements in the computerized MBs, for whatsoever reasons, the Contractor shall be notified by the Engineer-In-Charge in writing. If the Contractor or his authorized representative does not remain present at the appointed time of measurements after the Contractor has been given a notice of 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 Engineer-In-Charge shall be deemed be accepted by the Contractor.

Annexure-V to SCC
(Ref: SCC Clause 11)

TERMS OF PAYMENT

1.0 **MOBILIZATION ADVANCE**:

1.1 No Mobilization Advance shall be paid to the Contractor under this Contract.

2.0 **SECURED ADVANCE ON MATERIALS**:

2.1 Secured Advance on materials brought to site and awaiting incorporation in the works shall be paid to the Contractor as per SCC Clause 12.

3.0 **PAYMENT TERMS**:

3.1 No payments shall become due and payable to the Contractor until Contract is signed by the two parties and Contractor furnishes to the Company the Performance Security and Certificates of Insurance. Further, the Running Account Bill shall not be paid for the works till the applicable Labour License, registration with EPFO, ESIC, GST and BOCW Welfare Board, whichever applicable, is submitted by the Contractor to the Engineer-In-Charge.

3.2 Running account bills shall be submitted by the Contractor for the work executed on the basis of such recorded measurements as per SCC Clause 9 on the format specified by the Engineer-In-Charge in triplicate on or before the date of every month fixed for the same by the Engineer-In-Charge.

However, the Contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than Rs.1.00 Crore (excluding the prefinal/final bill), in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.

3.3 In the event of the failure of the Contractor to submit the bills, no claims whatsoever due to delays on payment including that of interest shall be payable to the Contractor. Payment on account of amount admissible shall be made by the Engineer-In-Charge certifying the sum to which the Contractor is considered entitled by way of interim payment at such rates and/or amounts as decided by the Engineer-In-Charge. The amount admissible shall be paid within 30 days after the day of presentation of the bill by the Contractor to the Engineer-In-Charge or his Authorized Engineer. In the case of works outside the headquarters of the Engineer-In-Charge, the period of 30 days period will be extended to 45 days. No interest on delayed payment shall become due to the Contractor under any circumstances whatsoever.

3.4 **ON ACCOUNT PAYMENTS**:

Progressive payments shall be released to the Contractor against Running Account (RA) bills duly certified by Engineer-In-Charge after affecting the necessary deductions/ recovery, if any.

The basis for payment against various items shall be as follows:

a. Pending completion of the whole work involved in execution of respective items included in Schedule of Quantities & Rates (SoQR), provisional progressive payments for the part of the works executed by the Contractor shall be made by Company on the basis of said work completed, measured and certified by the Engineer-In-Charge as per the item rate SoQR.

b. In case of certain bought-out items of Electro-Mechanical works included in the SoQR such as Lifts, Gensets, packaged STP, Transformer, HT/LT Panels, Solar Plant etc. which in the opinion of the Engineer-In-Charge involve discrete activities like 'supply', 'installation', 'testing & commissioning' etc., on account payments shall be made by the Company based on the SoQR as under:

Stage No.	Stage of work	Amount
I	After initial inspection and delivery at site in good condition	75%
II	On completion of installation	20%
III	On completion of testing, commissioning & handing over	5%

Certification of the work done/completed and entered in the Computerized Measurement Books shall be made by the Engineer-In-Charge within 15 days of receipt of Contractor's Application for Certification with all required supporting documents, after which the Contractor shall submit his Running Account Bills on format specified by the Engineer-In- Charge.

3.5 All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-In-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the Contract and Specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-In-Charge under the Contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the Contract.

3.6 Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the Company to take action under the terms of this Contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

NOTE:

1. The above payment terms shall be operated commensurate with the work executed.

2. The above progress payments are subject to deductions towards income tax and other deductions/ withholding/ retention as applicable as per terms of the Contract – List of applicable Deductions/ Retention/ Fine is given at Table-1 below.

3. Withholding Tax at the prevailing rate shall be effected as per the Indian Income Tax Act. TDS certificate shall be issued by the Company.

4. BOCW cess @ 1% shall be deducted from all the on-account bills of the Contractor and deposited with the concerned authority by the Company.

5. An amount @ 2% shall be withheld from all the on-account bills of the Contractor pending award of GRIHA 4-Star rating to the project and shall be released as specified at SCC Clause 30.

6. Completion certificate is the certificate issued after attending the defects prior to taking over as specified in the SCC Clause-17.2.

7. Part completion certificate whenever essential (in case of job in multi units, offloading case etc.) shall be issued with due concurrence from competent authorities to facilitate release of Final payment.

8. Wherever milestone payment is linked with sub-ordering, Engineer-In-Charge shall ensure that the total quantity against which the payment is released towards supply shall not exceed the final installed quantity of the item.

9. Wherever milestone payment has been recommended on receipt and acceptance of material, the same shall be released against "Incoming Material Inspection Report" issued by Engineer-In-Charge. Engineer-In-Charge shall release the progressive payment towards supply in such a way ensuring that the total quantity against which the payment is released towards supply shall not exceed the final installed quantity of the item.

Table-1: (List of Deduction/ Retention/ Fine applicable)

Sl. No.	SCC Clause	Cause of Deduction/ Retention/ Fine	Deduction/ Retention/ Fine Amount Applicable	Remarks
1	7.3, 7.4	Non-submission of Construction Programme	Rs. 5000/- per week or part thereof	Non-refundable
2	7.5	Updating Time and Progress Chart alongwith MPR		
3	7.9	Delay in Rescheduling of Mile-stones	Rs.5000/- per day	Non-refundable
4	13	Security Deposit	5% (Five percent) of the gross amount of each running and final bill	Refundable
5	17.1	Submission of Completion Plans and Operating /Maintenance Manual	2.5% of the contractual value of the such work subject to a ceiling of Rs.5.0 lakhs	Non-refundable
6	23.6.c	BOCW Cess	As per the prevailing rate (presently 1%)	Non-refundable (Govt. Deposit)
7	25.9	Remedy on the Contractor's failure to insure	Insurance Premium Amount + Administrative charge of 15% thereto	Non-refundable
8	26.4	Royalty (on forest produce)	Withhold Royalty amount on pro-rata basis of quantity consumption and applicable rates	Refundable upon submission of FRCC

Sl. No.	SCC Clause	Cause of Deduction/ Retention/ Fine	Deduction/ Retention/ Fine Amount Applicable	Remarks
9	30.4	GRIHA 4-Star Rating	Rs.10,00,000/- per rating point by which the Contractor fails to achieve GRIHA 4-Star rating but not exceeding 2% of the final executed contract value. 2% (Two percent) of the gross amount of each running account bill shall be withheld till receipt of the award of the GRIHA 4-Star rating for the project	75% of withheld amount will be refunded on receipt of provisional 4-Star rating and balance 25% after receipt of final 4-Star rating from GRIHA
10	38.1	Contractor's Technical Representative	Recovery as specified in Annexure-VII to SCC	Non-refundable
11	42.1	Delay in setting Lab at Site with all testing equipments	Rs.50,000/- per month on prorata daily basis.	Non-refundable
12	42.2	Delay in setting Site Office with all requisite furniture & fixtures	Rs.50,000/- per month on prorata daily basis.	Non-refundable
13	61.4	Sample Unit	Rs. 5000/- per day of delay	Non-refundable
14	66.3, 66.4	Variations beyond permissible limits to theoretical quantity consumption	200% of the last procurement invoice price of the concerned material	Non-refundable
15	68.3	Sign board – not installed within 15 days from the date of site handing over	Rs. 2500/- per day	Non-refundable
16	68.8	Non-compliance to Safety guidelines	Rs.1,000/- for each instance of lapse	Non-refundable
17	69.3	Non-Compliance to Safety Code	Rs.1000/- for each default	Non-refundable
18	69.4	Non-submission of Labour Report	Rs.1000/- for each default	Non-refundable
19	69.7	Breach of any of the provisions of Contractor's Labour Regulations and Model Rules	Rs.1000/- for every default. Rs.1000/- per day for each day of default subject to a maximum of 5% of the Contract Value in case of continuous default	Non-refundable

Sl. No.	SCC Clause	Cause of Deduction/ Retention/ Fine	Deduction/ Retention/ Fine Amount Applicable	Remarks
20	69.12	Handing over Vacant possession of completed building	Up to 5% of Contract Value of work (in case illegal occupation not removed)	Refundable (on removal)
21	70.2	Submission of PF/ ESIC challans/ payment proofs	2% (two percent) of the payable amount from the Running Account Bill	Refundable (on submission of PF/ESI payment proof)

ANNEXURE-VI TO SCC
(Ref: SCC Clause 30)

SPECIFIC CONDITIONS FOR GRIHA RATING/CERTIFICATION

Following Specific Conditions of Contract relating to "Green Rating of Integrated Habitat Assessment (GRIHA) Rating System" are to be complied by the Contractor for the Project:

The building is proposed to be registered by the Contractor for obtaining GRIHA 4-Star Rating (minimum) from GRIHA Council under MNRE. Thereafter, the Contractor is required to execute the work in a befitting manner to obtain the desired GRIHA rating.

1. Special conditions for GRIHA rating:

a. The Contractor shall prepare scheme for the approval of Engineer-in-charge for obtaining GRIHA rating in the criterions relevant to the execution of work.

b. The Contractor shall plan and execute the work in a manner to preserve and protect the landscape during construction and shall arrange the materials/equipment and follow the procedure as per relevant criterion of the GRIHA rating as applicable.

c. The Contractor shall appoint/engage consultant/ consultancies at his cost to provide technical guidance and supervise the work for obtaining GRIHA rating pertaining to the criterion related to the execution of work.

d. The Contractor shall preserve the top soil layer for supporting vegetative growth.

e. The Contractor shall comply with NBC norms on construction safety, health and sanitation as per relevant criterion of the GRIHA rating as applicable.

f. The construction activity shall be done in a befitting manner and the Contractor shall adopt measures to prevent air pollution at site in compliance with relevant criterion of GRIHA rating as applicable.

g. The Contractor shall comply with all the instructions and schemes for execution of green building.

h. The contractor shall provide sedimentation basin & wheel washing facility at site during execution of project.

i. Noting shall be paid extra for fulfilment of all these conditions except (d) above for which joint measurements shall be taken at site and work done in excavation, storage and reuse shall be paid on the basis of rates quoted in the SoQR.

2. Pre-construction Stage
Construction Vehicles, Equipment and Machinery:

a. All vehicles, equipment and machinery to be procured for construction will conform to the relevant Bureau of India Standard (BIS) norms.

b. Emission from the vehicles must conform to environmental norms.

c. Dust produced from the vehicular movement and other site activities shall be mitigated by sprinkling of water.

d. Noise limits for construction equipments shall not exceed 75 dB(A), measured at one meter from the edge of the equipment in free area, as specified in the

Environment Protection Act,1986, schedule VI part E, as amended on 19th May,1993. The maximum noise levels near the construction site should be limited to 65 dB (A) Leq (5 min) in project area.

3. Construction Stage

a. Construction Wastes Disposal

i) The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer-In-Charge.

ii) Contractor will get approved the location of disposal site prior to commencement of the excavation on any section of the project location.

iii) Contractor will ensure that any spoils of material will not be disposed-off in any municipality solid waste collection bins.

b. Procurement of Construction Materials

i) All vehicles delivering construction materials to the site will be covered to avoid spillage of materials and maintain cleanliness of the roads.

ii) Wheel Tyres of all vehicles used by of the Contractor, or any of his subcontractor or materials supplies will be cleaned and washed clear of all dust/mud before leaving the project premises.

iii) Contractor will arrange for regular water sprinkling at least twice a day (i.e. morning and evening) for dust suppression of the construction sites and unpaved roads used by his construction vehicles.

c. Pollution

i) Water Pollution

- The Contractor will take all precautionary measures to prevent the wastewater during construction to accumulate anywhere.

- The wastewater arising from the project is to be disposed off in the manner that is acceptable to the Engineer-In-Charge.

ii) Air and Noise Pollution

- Contractor will use dust screens and sprinkle water around the construction site to arrest spreading of dust in the air and surrounding areas.

- Contractor will ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that emission levels comply with environmental emission standards/norms.

- For controlling the noise from Vehicles, Plants and Equipments, the Contractor will confirm the following:
  1. All vehicles and equipment used in construction will be fitted with exhaust silencers.

  2. Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.

3. Noise emission from compactors (rollers) front loaders, concrete mixers, cranes (movable), vibrators and saws should be less than 75 dB(A).

4. As per the standards/guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission in dB(A) from DG Set (15-500 KVA) should be less than 94+10 log 10 (KVA). The standards also suggest construction of acoustic enclosure around the DG Set and provision of proper exhaust muffler with insertion loss of minimum 25 dB(A) as mandatory.

4. The following provisions shall be maintained by the Contractor at site:

4.1 Provide minimum level of sanitation/safety facilities for construction workers to ensure the health and safety of the workers during construction, with effective provisions for the basic facilities such as sanitation, drinking water and safety equipments or machinery.

a. All the workers should be wearing helmet and shoes all the time on site.

b. Masks and gloves should be worn whenever and wherever required.

c. Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers.

d. Full time workers residing on site should be provided with clean and adequate temporary hutment. Crèche/Day-care facility should be provided to young children of labourers residing on site. First aid facility should also be provided.

e. Overhead lifting of heavy materials should be avoided. Barrow wheel and hand-lift boxes should be used to transport materials onsite. Tobacco and cigarette smoking should be prohibited onsite.

f. All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.

g. Maintain hoists and lifts, lifting machines, chains, ropes and other lifting tackles in good condition.

h. Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.

i. Ensure that walking surfaces or boards at height are of sound construction and are provided with safety rails and belts. Provide protective equipment such as helmets.

j. Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire-prone area (diesel/inflammable item storage) and elsewhere.

k. Provide sufficient and suitable light for working during night.

l. Ensure that measures to protect workers from materials of construction, transportation, storage and other dangers and health hazards are taken.

m. Ensure that the construction firm/division/company have sound safety policies.

n. Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2016.

o. Adopt additional best particles and prescribed norms as in NBC 2016

4.2 Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base.

Add surface gravel to reduce source of dust emission. Limit the amount of fine particles (smaller than 0.075mm) to 10-20%. Limit vehicular speed on site 10km/h.

4.3 All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust/particulate emissions.

4.4 Spills of dirt or dusty materials will be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust.

Similarly, spilled concrete slurries or liquid wastes should be contained/cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.

4.5 The contractor shall ensure the following:

a. Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.

b. Covering stockpiles of dusty material with impervious sheeting.

c. Covering dusty load on vehicles by impervious sheeting before they leave the site.

d. Transferring, handling/storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.

e. Clear vegetation only from areas where work will start right away.

f. Vegetate/mulch areas where vehicles do not ply.

g. Apply gravel/landscaping rock to the areas where mulching/paving is impractical

4.6 Adopt measures to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).

4.7 Provide site barricading of not less than 3m height along the site boundary, next to a road or other public area, as may be applicable.

4.8 The contractor will provide experienced personnel with suitable training to ensure that these methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be

used on- site should be made available for the inspection and approval of the Engineer-in- Charge to ensure that these are suitable for the project.

4.9 Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed off to Municipal Corporation/local bodies dump yard and landfill sites. Preserve and protect landscape during construction following provisions shall be made at site by the Contractor to preserve and protect landscape.

4.10 Nothing extra shall be paid on account of Contractor's mandatory compliances related to achieving GRIHA 4-Star rating unless specifically provided for in the SoQR. Contractor to preserve the existing landscape and protect it from degradation during the process of construction and select proper timing for construction activity to minimize the disturbance such as soil pollution due to spilling of the construction material and its mixing with rainwater. The construction management plan including soil erosion control management plan shall be prepared accordingly for each month and got approved from the Engineer-In-Charge. The application of erosion control measures includes construction of gravel pits and tyre washing bays of approved size and specification for all vehicular site entry/ exits, protection of slopes greater than 10%.

4.11 Sedimentation Collection System and run-off diversion systems shall be in place before the commencement of construction activity. Preserve and protect the existing vegetation by not-disturbing or damaging to specified site areas during construction. The trees that are identified to be retained on site are protected during the construction period using the following measures:

a. The damage to roots is prevented during trenching, placing backfill, driving or parking heavy equipment. The dumping of trash, oil, paint and other material is detrimental to plant health.

b. These activities should be restricted to the areas outside of the canopy of the trees.

c. The trees are not used for support; their trunks should not be damaged by cutting and carving by nailing posters and advertisements or in any other way.

d. The lighting of fires or carrying out heat or gas emitting construction activity within the ground covered by canopy of the trees is not permitted. The young trees of saplings identified for preservation within the construction site must be protected using tree guards of approve specification.

e. The grades of soil should be maintained around existing vegetation. Unless specifically directed by the Architect/Engineer-In-Charge.

f. Maintenance activities should be performed, as and when needed, to ensure that vegetation remain healthy.

4.12 Staging is dividing a construction area into two or more sections to minimize the area of soil that will be exposed at any given time. Staging should be done to separate undisturbed land from land disturbed by construction activity and material storage. A CAD plan to be submitted identifying the areas of sites, which shall be disturbed for the construction activity and apart from these other areas on site should not be disturbed. Measures should be followed for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas.

4.13 Temporary drainage channels and perimeter dike/swale shall be constructed to carry the pollutant laden water directly to the treatment device or facility (municipal sewer line). The plan shall indicate how the above is going to be accomplished on site well in advance of the commencement of the construction activity.

a. Contractor shall follow the construction plan as proposed by the architect/landscape consultant to minimize the site disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site. Protect top soil from erosion by collection storage and reapplication of top soil, constructing sediment basin, contour trenching, mulching etc.

b. Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills.

c. Hazardous wastes include pesticides, paints, cleaners and petroleum products.

4.14 A soil Erosion and Sedimentation Control Plan (ESCP) shall be prepared prior to construction and applied effectively. Measures for prevention of top soil are given below:

a. Top Soil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas and external services. It should be stockpiled to a maximum height of 40 cm in designated areas and reapplied during plantation of the proposed vegetation. The top soil should be separated from the sub soil debris and stones larger than 50 mm in diameter. The stored top soil may be used as finished grade for planting areas post construction or cordoned off undisturbed areas on site. Stockpiled top soil should not be compacted to help process of aeration. It should be stabilized on the top by temporary seeding or plastic sheets to avoid wind and water erosion.

b. Sedimentation basin, a temporary dam or basin at the lowest convenient point of the site should be constructed for collecting, trapping and storing sediment produced by the construction activities. A flow detention facility must also be constructed for reducing peak run-off rates. This would also allow most of the sediments to settle before the run-off is directed towards the outfall.

c. Contour trenching is to be provided which an earth embankment or ridge-and-channel arrangement constructed parallel to the contours, along the face of the slope, at regular intervals on the lengths and slopes greater than 10% (1:10). They are used for reducing runoff velocity, increasing the distance of overland run-off flow. They are also used to hold moisture and minimize sediment loading of surface runoff.

4.15 Prepare the list of trees to be felled with reference to the tree survey, compensate the loss of vegetation (trees) due to the construction activity by compensatory plantation. Replant same native and/or non-invasive species, which existed on the site before elimination, in the proportion of 1:3 (as per the suggestion of the landscape consultant) – Plantation including other horticulture activities shall be paid to the Contractor as per his quoted rates in the SoQR.

4.16 Contractor shall prepare and submit 'Spill prevention and control plans' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.

4.17 Contractor shall ensure that no constructions leach (Ex: cement slurry) is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale, etc. shall be constructed to carry the pollutant-laden water directly to the treatment device or facility (municipal sewer line).

4.18 All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed.

4.19 All paints, adhesives and sealants should comply with the VOC limits prescribed by GRIHA, as follows:

Paints	**VOC limit (g/l)**
Non-flat paints	150
Flat (Mat) paints	50
Anti-corrosive/anti-rust paints	250
Varnish	350

Adhesives	**VOC limit (g/l)**
Wood flooring Adhesive	100
Tile adhesives	65
Indoor carpet adhesives	50
Wood	30

4.20 All the building materials and systems used on site must be as per the specifications and approved makes by the consultants.

4.21 All required certificates explaining the properties of the building material/system needs to be obtained from the manufacturer/vendor as required by the green building rating authority.

a. The final certificates would be produced after the approval of green building consultant with necessary due diligence.

b. The purchase orders of all the materials made with the manufacturers/ authorized vendors should be maintained and shall be provided for the process with due diligence upon request.

4.22 Water saving measures as suggested by the consultants need to be followed at site.

4.23 Any other site management measures suggested by the green building consultant shall be followed on site.

4.24 Contractor shall submit to the Engineer-In-Charge after construction of the buildings, a detailed as built quantification of the following:

a. Total materials used,

b. Total top soil stacked and total reused,

c. Total earth excavated,

d. Total waste generated,

e. Total waste reused,

f. Total water used,

g. Total electricity consumed, and

h. Total diesel consumed.

4.25 Contractor shall submit to the Engineer-In-Charge, before the start of construction, a site plan along with a narrative to demarcate areas on site from which top soil has to be gathered, designate area where it will be stored, measures adopted for top soil preservation and indicate areas where it will be reapplied after construction is complete.

4.26 Evidence for the implementation of the all the above required measures shall be provided to the green building consultant in the form of photographs and templates (as provided) which is required for the submission to the green building rating authority (GRIHA).

ANNEXURE-VII TO SCC
(Ref: SCC Clause 38)

REQUIREMENT OF TECHNICAL REPRESENTATIVE(S) AND RECOVERY RATE

Cost of Work (Rs. in Crore)	Requirement of Technical Staff		Minimum experience of similar nature of work (Years)	Designation	Recovery Rate (@ Rs. per No. per Month)
	Qualification (of Major[9] + Minor[10] Component)	Nos			
More than 20 to 50	Graduate Engineer	1	15	Project Manager	75,000/-
	Graduate Engineer	1	10	Planning Engineer	50,000/-
	Graduate or Diploma Engineer	1+1	5 or 10 respectively	QC & Billing Engineer	30,000/-
	Graduate or Diploma Engineer	1+1	4 or 8 respectively	Site Engineer	25,000/-
	Diplomain Industrial Safety, Health & Environment	1	5	Safety Officer	25,000/-

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers with 10 years experience.

Diploma holder with minimum 10year/8year relevant experience with a reputed construction company can be treated at par with Graduate Engineers with minimum 5year/4year experience for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of overall requirement of degree engineers.

[9] Civil works
[10] Electrical / Mechanical works as per the job requirement at the particular point in time of execution

Note:

1. If the work is not of composite nature, the requirement of technical staff for such work shall be as per requirement of technical staff of both the components.

2. The NIT approving authority shall mention the appropriate stage of employment of technical staff for minor component, at the time of approval of NIT.

3. “Cost of work”, in table above, means the agreement amount of the work.

4. Nothing extra need to be added while preparing market rate justified amount of the work if stipulation is made as per above recommended scale of requirement of technical staff.

ANNEXURE-VIII TO SCC
(Ref: SCC Clause 40)

PLANT AND EQUIPMENT REQUIRED TO BE DEPLOYED BY THE CONTRACTOR

Sl. No.	Equipment	Numbers (Minimum)
1	RMC plant CP30 or equivalent[11]	1
2	Transit Mixer (5-6cum)[5]	2
3	Boom Placer/Pump[5]	1
4	Static Concrete Pump[5]	1
5	Concrete mixer with hopper & weigh batcher	1
6	Builder's Hoist	1
7	Excavators (4DX of equivalent)	1
8	Scaffolding/Staging material (steel cups-lock, props & acrow-span etc.))	3000 cum (volume coverage)
9	Shuttering plate/ply boards	2000 sqm
10	Tipper	2
11	Total Station	1
12	Auto-level with accessories	1
13	Earth Rammer/Soil Compactor	1
14	Curing Pumps	2
15	Welding Machine	2
16	Needle Vibrators (various sizes)	8
17	Plate Vibrators	3
18	DG Set	As per requirement
19	Screener for coarse & fine sand	2
20	Reinforcement cutting machine	3
21	Chase cutting machines.	2
22	Portable Ordinary drilling machine	2
23	Tile cutting machine	3
24	Roller (8 to 10 tones)	1
25	Tanker with sprinkler	1
26	Barricading material Minimum 3mtr height (CGI Sheet etc. withfixing arrangements)	As per requirement
27	Any other machinery required for completion of the work asper decision of EIC.	As per requirement

[11] Contractor may opt for reputed RMC suppliers with prior approval of the Engineer-In-Charge

Note:

1. The quantities and list of equipment mentioned above are minimum required and can be increased/ amended as per the requirement of work based on the Equipment Deployment Schedule forming part of the Construction Programme

OR as per the direction of Engineer- in-Charge. The Contractor has to deploy all the required equipment to complete all the works within stipulated specifications & time period as per the contract documents.

2. Use of Ballies, bamboos, dented forms or any other traditional forms, shuttering/ props/ staging etc. shall not be allowed at the site.

3. Contractor will not be allowed to take out equipment from the site without the written permission of Engineer-in-Charge.

EQUIPMENTS FOR SITE LABORATORY

All necessary equipments for conducting all necessary tests shall be provided at the site in the well furnished site laboratory of minimum size 30 feet x 16 feet by the Contractor at his own cost. The following minimum laboratory equipments, but not limited to the requirement as per relevant IS:2720 Part 2, 8 & 28, shall be set up at site office laboratory:

SN	Equipment	Numbers
1	Graduated glass measuring cylinder: 1000ml, 500ml, 100ml	1 set
2	Wash Bottles, 500ml capacity	1 set
3	Sets of sieves of 450mm internal dia for coarse aggregate [40mm;20mm; 12.5mm, 10mm; 4.75mm complete with lid and pan]	2 set
4	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm; 2.36mm; 1.18mm; 600 microns; 300 microns & 150 micron, with lid and pan]	2 set
5	Sieve Brushes and sieve shaker capable of 200mm and 450 mm dia sieves, manually operated with timing switch assembly	2 set
6	Slump cone, steel plate, tamping rod, steel scale, scoop	2 set
7	Physical Balance	1 no.
8	Electronic Balance – 25kg / 10kg capacity sensitive to 1gm	1 no.
9	Electronic Balance – 200gm capacity sensitive to 0.01gm	1 no.
10	Vernier Calipers	2 nos
11	Digital pH meter (LC 0.01mm)	1 no.
12	Digital Micrometer (LC 0.01mm)	1 no.
13	Digital paint thickness meter for steel 500 micron range	1 no.
14	GI tray 600x450x50mm, 450x300x40mm,300x250x40mm	2 sets
15	Screw gauge 0.1mm-10mm, least count 0.05 mm	1 no.
16	Water testing kit	1 set
17	Cube Testing Machine (100MT)	1 no.
18	Standard Cube Moulds	30 nos
19	Vicat Apparatus with accessories	1 set
20	Electrically operated oven (300deg Centigrade)	1 set
21	3mtr, 5mtr, 30mtr Steel Tapes & Steel Rulers	1 set
22	Any other equipment for site tests as outlined in BIS codes and as directed by the Company Representative.	As per actual requirement.

LIST OF APPROVED MANUFACTURERS/BRAND

1. CIVIL & PLUMBING WORKS						
S.No.	**Details of Equipment / Material**	**Make / Manufacturer**				
1	Adhesive for Door Work	Fevicol	Vamicol	Dunlop	Araldite	Century
2	Air Release Valve	Azud	AIP	Bermad	Bird	Kirloskar
		Venus	Zoloto			
3	Aluminium Accessories and Hardware	Classic	Argent	Oxford	Newlite	Crown
		EBCO				
4	Aluminium Cladding Sheets	Aludecor	Alstrong	Alucobond	Alupan	Alstone
		Alshine	Durabuild			
5	Aluminium Die-Cast handles & two point locking kit	Giesse	Securistyle	Alu – alpha		
6	Aluminium Extrusion	Indal	Mahavir	Hindalco	Jindal	Bhoruka
7	Aluminium Fabricators	M/s. International Glass House	M/s. AGV Alfa Lab Ltd.	M/s. Consolidated Engg. Company	M/s. Ajit (India) Pvt. Ltd.	Calco
		Alkarma				
8	Anchor Fastner	Hilti	Fischer	Bosch		
9	Anti – Termite Treatment	Pest Control India Ltd.	Bayer India	Any permanent members of IPCA as approved by Engr-in-Charge.		
10	Automatic variable temperature control / fixed temperature control faucets	Jaquar	AOS-Robo-U-Tec	Parry	Angash	Euronics
11	Ball Cock	Zoloto	L&T	Audco	Advance	
12	Ball valves with floats	Zoloto	Leader	Sant	Jayco	GPA
		Audco	AIP			
13	Batch Mix Concrete (BMC) / Ready Mix Concrete (RMC)	The contractor to install his own computerized batching plant of suitable capacity and arrange for Transit Mixers, pumps etc. as per approval of Engineer – In- Charge.				
		OR				
		ACC	Nuvoco	JK Cement	Unitech	Ultra tech
		Prism RMC				

14	Brass stop & Bib Cock	Zoloto	Sant	Jaguar	AIP	
15	Butterfly valves	Zoloto	Audco	AIP	Sant	Advance
16	C. I Fitting	RKS	AVR	UNIK	Electrosteel	Kesoram
		ISSCO	Neco	RIF	SKF	
17	C.I Sluice Valve & Non Return Valve	Kirloskar	IVC	Leader	Zoloto	L&T
		Audco	Advance	AIP		
18	C.I Valves (Full way, Check and Globe Valves	Leader	Kirloskar	SKF	Zoloto	Sant
		Upadhyay	Castle	Kartar		
19	C.I. Manhole Covers	Neco	R.I.F.	B.I.C.	Hepco	SKF
		Kajeco				
20	C.P. Fittings Mixer / Pillar taps/ C.P brass angle valve/ Valves Washers, C.P. brass accessories	Parko	Jaguar	Marc	Dripless	Soma
		Grohe	Gem	Parry	Kohler	Kerovit
		Roca	Aquplus			
21	C.P. Waste, Spreaders, Urinal	Jaguar	Parko	Kingston	Gem	Kerovit
22	Calcium Silicate False Ceiling	India Gypsum	Armstrong	Decosonic	Daiken	Aerolite
		Saint Gobain (Gyproc)				
23	Calcium Silicate Boards	Hilux	Aerolite	Saint Gobain (Gyproc)		
24	Calcium Silicate Tiles	Hilux	Aerolite	Saint Gobain (Gyproc)		
25	Carpet Flooring (Tiles & Rolls)	Modulyss	Forbo	Corus	Shanhua	Heritage
26	Cement	ACC	L&T	Ultra tech	Birla Gold	JK Cement
		Jaypee-Rewa	Shree	Lafarge	Prism	India Cement
		Bangur	Nuvoco	Ambuja		
27	Cement: White	Birla White	JK	Travancore Cements Ltd		
28	Central Control	Rain Bird, USA	Toro	Nelson		
29	Centrifugally cast C.I Rainwater fitting / Bronze gratings etc.	Sages Metals	GMGR	Electro Steel	Kesoram	IISCO
		Neco	BIC	Neer		
30	Centrifugal Pump	Crompton	Kirloslar	KSB	Willo	Lobara

31	Centrifugally C.I Rainwater Intel fitting , Bronze gratings	Sages Metals	GMGR	Electro Steel	Kesoram	IISCO
		Neco	BIC	Neer		
32	Centrifugally casted C.I. Pipes	Neco	Hepco	SKF	Kapilash	Kesoram
33	Ceramic tiles	Johnson	Somany	Kajaria	Nitco Ceramics	RAK
		Spartek	Bellissimo			
34	Ceramic tiles Adhesive	Basf	Sika	Cico	Pidilite	Bal Endura
		Swastik				
35	Chlorinator	Thermax Ltd	Watcon	Ion exchange	Sigma DH Combine Inc.	Siemens
		Techcon	Jesco	Prominent		
36	Chlorine Dosing System	Toshcon	Chloromax	Thermax		
37	Clear Glass / Clear Float Glass / Toughened Glass	ModiGUARD	Saint Gobain (SG)	Asahi India Ltd	GSC	Tata
38	Cockroach Trap	Chilly	GMGR	Camry		
39	Compressed Chequered tiles	Johnson	Somany	Kajaria	Spartek	Nitco
		Bellissimo				
40	Concrete Additive	Sika	STP	Cico	Pidilite	Fosroc
		Fairmate	MC Bauchemie	Chokesy	Basf	
41	Copper Fittings (Capillary)	Yorkshire Imperial, U.K.	Mexflow	Rajco Metal Works Mumbai	Conex - Benninger	
42	Copper Pipes	Mexflow	Rajco Metal Works Mumbai	Conex - Benninger		
43	CPVC Pipes & Fittings	Prakash Surya	Flowguard	Astral	Ashrivad	Oriplast
		AKG	Supreme	Kishan		
44	Curtain Rod/Drapery Rod	Vista	Mac Décor	Hunter Douglas		
45	Dash Fasteners	Hilti	Fischer	Bosch		
46	Disc Filter	Azud	Spain	Amaid	Arkal	
47	Door closer / Floor spring	Ozone	Godrej	Everite	Hardwyn	Master
		Dorset	Dorma	Doorking		
48	Door Locks	Godrej	Harrison	Link	Dorset	
49	Door Seal – Woolpile Weather Strip	Anand Reddiplex	Enviroseal			
50		Everite	Argent	Classic	Crown	Earl Bihari

	Doors & Windows Fixtures / Fitting.	Dorset	Dorma	Haffele	Hettich	Godrej
51	Drainage Pumps	Grundfos	KSB	Salmson	Kirloskar	
52	Ductile Iron Fittings (IS:9523)	Electrosteel	Kesoram	Tisco	Jindal	
53	Ductile Iron Pipes (IS:8329)	Electrosteel	Kesoram	Tisco	Jindal	
54	E.P.D.M Gaskets	Anand Reddiplex	Enviro Seals			
55	Extruded Polystyrene Board	Styrofoam by DOW Chemicals	Insuboard by Supreme Industries			
56	Filtration Plant / Softening Plant	Bikon water	Ion exchange	Thermax	Pentair	Eureka Forbes
		Doshi Ion	Fontus			
57	Fire rated Doors & Frames	Navair	Shaktimet	GMP	Promat	Godrej
		Hormann				
58	Fire Rated Glass	Saint Gobin	Torch	Glaberwal		
59	Fire Retardant Paint	Viper FRS 881	Nullifire	Berger		
60	Fire Seal	Sealz	Alstroflam	Abacus		
61	Fire: Door Closures, Mortice Dead locks	Becker Fire Solution	Ingersoll Rand LCN Series	DormaKaba TH Series	Dorset	Hormann
62	Fire: D-Type Pull Handles	Becker Fire Solution	DormaKaba	Hardwin	Dorset	Hormann
63	Fire: Hinges,	Becker Fire Solution	Ingersoll Rand	DormaKaba	Dorset	Hormann
64	Fire: Panic Exit Device	Dorma	D-line	Dorset	Hormann	
65	Fire: Panic Exit Devices	Becker Fire Solution	Ingersoll Rand LCN Series	DormaKaba PHA Series	Dorset	Hormann
66	Fire: Tower Bolts	Suzu	Nulite	Dorset	Hormann	
67	Flush Door Shutters	Archidply	Duro	Greenpanel	Century	Merino
		Kitply				
68	Flush Valves	Gem	Jaguar	Parko	Kingston	Plumber
		Marc				
69	Forged Steel Fittings & Flanges (For Welded joints)	Rohini	Kanwal	Vijay Cycle & Steel		
70	G.I. Fittings	R	Unik	S.S.	Sun	Swastik

71	G.I. Pipes	Jindal Hissar	Tata	Prakash Surya	SAIL	Swastik
72	Geyser	AO Smith	Racold	Venus	Voltas	Usha Lexus
		Almonard	Bajaj	Havells		
73	Glass : Mirror	Modiguard	Atul	Saint gobain	Asahi India	Pilkington
74	Glass Wool	Owens Corning	UP Twiga	KIMMCO		
75	Insulation	Roxul rockwool	Knauff	NISCHIAS		
76	Glass / Glass for Aluminum Doors/ Windows	Glaverbel	Asahi India Safety Glass Ltd.	Atul	Saint Gobain	Modi Float glass (India)
		Pilkington				
77	Grab bars and Disabled Hardware	Dorma	Ozone	D-line		
78	Gunmetal Valves / C.P brass angle valve	Zoloto	Leader	Kilburn	Sant	Kartar
		AIP	Audco	Jaquar	Kerovit	
79	Gypsum Board	Beral Gypsum	India Gypsum	USG Boral	Saint Gobain (Gyproc)	
80	Chairs	Godrej	Wipro	Featherlite	Herman Miller	Geeken
		HNI				
81	Hand Drier	Kopal	Utech Systems	Blue Circle (India) Pvt. Ltd.	Euronics Automat	CMR
82	HDPE Pipes / Moulded Fittings	Emco	Polyefins	Pioneer Plyfab	Supreme	Jain Irrigation
		Oriplast				
83	HDPE Solution tank	Watcon	Ion Exchange	Water Supply Specialist Pvt. Ltd.		
84	Heat Resistant Terrace Tiles	Thermatek	Thermatek	Thermatek	Thermatek	Thermatek
85	Horizontal Centrifugal / Monoblock Pumps	Kirloskar	DP Holland	Willo	Grundfoss	CRI Pumps
		Salmson	Ebara			
86	Hydro-pneumatic System	Willo	Grundfoss	Salmson	Nocchi	Xyllum
87	Inbuilt Drip Line	Azud	Rainbrid-USA	Netafim		
88	Insulation of Hot water pipes	Vidoflex insulation	Superion insulation Kaiflex – Kaimann	Armoflex	Thermaflex	Armacell
89	Laminates	Ventura	Archidlam	Century	Greenlam	Formica
		Amulya	Merino			
90	Liquid Level Controllers / Indicators	Advance Auto	Minilec	Radar	Femac	Switzer
91	Liquid Soap Dispenser	Chilly	Euronics	Camry	Utec	Kopal

92	M.S. Pipe	Jindal Hissar	Prakash – Surya	BST	Kalinga	TATA
		TT Swastik				
93	Mainline Isolation Valve	Sant	Leader	Zoloto	Audco	Advance
94	Metal False Ceiling	Hunter Douglas	Armstrong	Durlum	Lindner	Chicago Metals
		USG Boral	Dexune	RK Ceilings		
95	Mineral fibre ceiling	Armstrong	AMF	USG Boral	Anutone	Dexune
96	Modular SS Railing System	Metallica India	Stark Steel Fabricators	Het creators	D – Line International Denmark	Mobel Hardware
97	MS Saddle with G.I. Riser	Harvel	Alprene	Rain Bird, USA		
98	Night Latch	Godrej	Harrison	Link	Dorset	Dorma
99	Non Return Valve	Sant	Leader	Zoloto	Audco	Advance
100	P.R.S. Dials	Rain Bird, USA	Toro, USA	Nelson		
101	P.T.M.T. Fitting	Prince India	Symet			
102	MDF	Archidply	Greenpanel	Action Tesa	Valbopan	
103	Pre-Laminate MDF	Merino	Greenpanel	Jaitra	Action Tesa	
104	Metalic Laminates	Metlam	Homapal	Dekodur		
105	Glass Fibre Acoustical Ceiling Tile	Decosonic	Ecophone	Armstrong	Anutone	
106	Acoustic Wooden Perfonated Slat	Decosonic	Armstrong	Saint Gobain		
107	Acoustical Fabric (With Glasswood) Wall Panels	Anutone	Ecophone	Saint Gobain		
108	R.C.C Pipes	Indian Hume Pipe	Pragati Concrete Udyog	Daya	KK	JSP
109	Paint-Cement Paint	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
110	Paint - Dry Distemper	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
111	Paint - Oil Bound Distemper / Acrylic Washable Distemper	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
112		ICI	Berger	Asian	Dulux	Goodlas

	Paints - Cement Based	Nerolac	J&N	Snowcem plus	Tatacem	
113	Paints - External Emulsion Paint	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
114	Paints - Other Paints / Primer	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
115	Paints - Plastic Emulsion Paint	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
116	Paints - Resin Based Paints	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
117	Paints - Synthetic Enamel Paints	ICI	Berger	Asian	Dulux	Goodlas
		Nerolac	J&N			
118	Paint Epoxy paint	Nerolac	Shalimar	Cico	Fairmate	Sika
		Basf	Berger	Asian	Pidilite	
119	Paints - Texture paint	Berger	J&N	Spectrum	Unilite heritage	Asian
		Dulux	ICI			
120	Paver blocks (All Types)	KK Manholes	Uni Stone Products (India) Pvt. Ltd	Hindustan Tiles		
121	PE-AL-PE Pipe and Accessories	Kitec	Jindal	Kissan	Vista	
122	Pipe coat material (pipe protection)	RPG Raychem	Pypkote	Makphalt		
123	Plastic seat cover of W.C	Commander	Hindware	Johnson	Poddar	Parryware
		Bestolite	Capri			
124	Plywood/Block board/Ply board	Archidply	Duro	Greenpanel	Century	
125	Polycarbonate Sheets	Danpalon	Tuflite Polymers	DPI Daylighting	Macrolux	GE Plastic
		Vergola	Midori	Zesta		
126	Poly-sulphide Sealant	Pidilite	Fosroc	Chokesy	ChematalRai	Cico
		Sika	MC Bouchemie	Basf		
127	Pop up Connecting Assembly	Rain Bird	Dura	Lasco		
128	Popup Spray Head	Rain Bird	Toro, USA	Nelson		
129	Powder Coating Material pure Polyester	Jotun	Berger	Goodlass Nerolac		

130	PP-R Pipes (PN – 16)	Amitex Polymers Pvt. Ltd.	Prince	Supreme	Vector	
131	Pre-coated Galvanised Steel Sheet	Tata BlueScope	Llyod Insulations India Ltd	S.R.Metals		
132	Pre-Laminated Particle Board	Century	Jaitra	Action TESA	Merino	
133	Pressed Steel Doors Frame	West Wind Concepts Pvt. Ltd., Gurgaon	Shiva Steel Pvt. Ltd., Noida	AGEW Steel Manufacturing, Ahmedabad	Sukri	Godrej
		Gurdian	Navair			
134	Pressure Relief Valve	Omega	Sant	Leader	Zoloto	Audco
135	Pumps	DP Holland	Willo	Grund foss	Xyllum	Lobara
136	PVC continuous fillet for periphery packing of glazings / Structural/ Glazing	Roop	Anand	Forex Plastic	Nagalia	Trading Company
137	PVC Flooring	Forbo	Tarkett	Gerflor	Armstrong	Polyfloor
138	PVC flushing cistern	Commander	Johnson Pedder	Parryware	Duralite	Geberit
		Viega	Hindware			
139	PVC Pipes & fitting SWR Soil, Waste & Vent Pipes and fittings, Type B PVC Casing & Screen Pipes	Prince	Supreme	Finolex	AKG	Oriplast
		Kasta	Vector	Prakash Surya		
140	PVC Water Stops	Prince	Supreme	Finolex	Oriplast	Basf
141	Polyethylene Storage Tank	Sintex	Polycon	Fusion	Plasto	Oriplast
142	R.O. System	Ion Exchange	Sterling India Ltd.	Pentair water	Eureka Fobes	
143	Reinforcement Steel (Primary Producer)	SAIL	RINL	TISCO	IISCO	JSW
144	RQRC Hydrant	Harvel	Alprene	Rain Bird, USA		
145	RQRC Key	Harvel	Aqua	Drip& Drip		
145	Sensor Operated Auto Flushing System Urinals	Jaquar	AOS-Robo	U-tec	Angash	Euronics
		CMR	Roca			

146	SFRC / RCC Manhole Covers/ Perfect RCC Grating	KK Manholes	SK Precast Concrete	Advent concreteo vision		
147	Silicon sealants /Weather Sealant / Structural Glazing Sealant	GE-Silicon	Pidilite	Chokesy	Wacker	Forsoc
		Cico	Dow Corning	Sika		
148	Sluice valve / NRV	Kirloskar	IVC	Kilburn	Zoloto	Castle
		Leader	L&T	Audco		
149	Solar Hot water system	Emmvee Solar	Racold	Solahart (India)	Venus	Honeywell
149	Solenoid valve	Rain Bird, USA	Toro	Nelson		
150	SS Gratings, Soap Dish Towel Rail etc.	Camry	Glacier	Gem		
151	Stainless Steel	Salem Steel	As approved E-in-Charge			
152	Stainless Steel bolts, Washers and Nuts	Kundan	Puja	Atul		
153	Stainless Steel Clamps	Hilti	Intellotech	Koncept		
154	Stainless steel CP Grating	Chilly	Camry	Viega	Neer	GMGR
155	Stainless Steel D-handles	D-line	Giesse	Dorma	Dorset	
156	Stainless Steel Friction Stay	Earl Bihari	Securistyle	EBCO		
157	Stainless Steel Pressure Plate Screws	Kundan	Puja	Atul		
158	Stainless Steel Screw for Fabrication and fixing of Windows	Kundan	Puja	Atul		
159	Stainless Steel Sink	Hindware	Jayna	Neelkanth	Nirali	Kingston
		AMC	Orient	Commander		
160	Stone ware pipes & Gully Traps	Perfect	R.K	Hind	Anand	
161	Submersible Drainage pump	Jyoti	Crompton	Kirloskar	KSB	Grundfos
		Mather & Platt	JS	Wilo	Xyllum	

162	Sunken Portion Treatment	Choksey	Sika	Cico	MC Bouchemie	Basf
163	Super plasticizer	Cico	MC Bauchemie (India) Pvt Ltd	Roffes Construction Chemicals	Pidilite Industries	Berger
		Fosroc	Sika	Basf	Ultracon	
163	Tiles: Glass Mosaic Tiles	Mridul	Italias	Bisazza	Pace India	
164	Tiles: Glazed tiles	Bell	Somany	Johnson	Kajaria	Spartek
		Bellissimo	Nitco	RAK		
165	Tiles: Vitrified Tiles	Somany	H.R.Johnson	Kajaria	Nitco	RAK
		Restile	Bell	Bellissimo	Spartek	
166	UPVC Pipes & fittings	Prakash surya	Finolex	Oriplast	Supreme	AKG
		Kasta	Vector	Astral	Prince	
167	Vacuum Dewatered Flooring	Tremix	Sun Build	Avcon technics		
168	Valve Box	Rain Bird, USA	Carson Brook, USA	Dura		
169	Veneer	Duro	Greenpanel	Century		
169	VFD Pump	Jyoti	Crompton	Kirloskar	KSB	Grundfos
		Mather & Platt	Ebara			
170	Vibration Eliminator Resisto-flex Pads & Connections	Relay Corpn.	Kanwal			
171	Vitreous China/ Sanitary ware	Parrywar e	Neycer	Cera	Hindware	Kohler
		Grohe	Kerovit	Jaguar	Aquaviva	
172	Water Cooler	Blue Star	Voltas	Usha	Godrej	Eureka fobes
173	Water Meter	Capstan	Kranti	Anand	Kant	
174	Water Proofing Agencies	Shalimar Tar products	IWL (India) Ltd.	M/S Llyod Insulations India Ltd.	Chemisol Adhesive Pvt. Ltd. Mumbai	Indian Water proofing
		Overseas Water proofing	(Chemistik) Texas Ltd.	Fosroc	Sika	Cico
		MC Bouche me	Chyrso			
175	Water Proofing Materials	Shalimar Tar products	IWL (India) Ltd.	M/S Llyod Insulations India Ltd.	M/S Chemisol Adhesive Pvt. Ltd. Mumbai	Grace
		Sika	Cico	MC Boucheme	Fosroc	Chyrso
176	Water supply pumps	KSB	Grunfos	Kirloskar	Crompton	Mather & Platt
		Ebara				

177	White Glazed Fire Clay Sink	Sanfire	Cera	Neycer	Hindware	
178	WC Pan Connector	Supreme	Prince	Mc Alpine		
179	Wooden Laminated Flooring	Berryfloor	Krono	Egger	Haro	Pergo
		Armstrong	Kaindl	Greenpanel		
180	P U Water Proofing	Fosroc	Pidilite	Basf	Sika	Mapei
		Chyrso	Berger			
181	T.P.O Laxer W.P.	Basf	Fosroc	Sika	Firestone	Chyrso
182	Modular Furniture	Godrej	BP Ergo	Wipro	Featherlite	HNI
183	Fabric Blinds	Hunter Douglas	Mac Décor	Vista	Deck	
184	Aluminium Louvers / Facades.	Harsons Green	Hunter Douglas	Lindner	Faveton	Chicago Metals
185	Copper Louvers / Facades.	Harsons Green	Hunter Douglas	Lindner		
186	Tensile Fabric	Mehler	Verseidag	Heytex		
187	Facade Tiles	Clayton	Faveton	Terreal	Hunter Douglas	Tempio
188	Zinc Panels	Elzinc/VM Zinc	Halcor	Leqsa	Cinkarna	
189	Expanded Metal Mesh Panels	Fils & Italfim	Expanded Metal Mesh company	Harsons Green		
190	WTP	BS Enviro	Pentair	Doshion	Thermax	
191	STP/ETP	BS Enviro	C-Tech	Doshion	Premiertech	Thermax
		Brizanzia Technologies				
192	AAC Block	Aerocon	Ballarpur	JindalBlock	JK Laxmi	Finecrete
193	AAC Blocks adhesive	Saint Gobain Weber	Sastha buildtech	Ultratech		
194	Adhesive for Stone/ Tile Fixing Solution	Saint Gobain Weber	Kerakoll	Dunlop		
195	Epoxy Grout for Stone/ Tile	Saint Gobain Weber	Kerakoll	Norcros		
196	Stone Sealer	Saint Gobain Weber	AKEMI	MMC		
197	Water Proofing Polymer based	Saint Gobain Weber	Kerakoll	Mapei	Chyrso	
198	Water Proofing Cementitious membrane	Saint Gobain Weber	Kerakoll	Mapei		

199	Polymer Modified Cementitious Grout	Saint Gobain Weber	Kerakoll	Norcros		
200	Pre-Cast GRC Jali	Unistone	Grand GRC Prefab pvt. Ltd.	Ecovision		
201	Hdpe Grass Pavers & Hdpe Drain Board	Ovilite	Aceturf	Virendra Textiles		
202	Ornate Pots(Removable Planters)	Smart Exteriors	Yuccabe	Raunaq Sales		
203	Sculptures	Kalanishtha Enterprises	Art View Studio	Us India Art & Culture Exchange		
204	Stone	R.K.Marble	ArasiEmpexs	Mangla Group	DBS	Stonex
205	Water Body Vendors/Fountain	Ripple Engineering	Premium Pools	Watcon Water Specialist		
206	Irrigation Products	StitchwelQualitex	Irrigation Products International	Jain Irrigation Systems		
2. FIRE FIGHTING WORKS						
S. No.	**Details of Equipment / Material**	**Make / Manufacturer**				
207	Diesel engine driven pump	Kirloskar	Ashok Leyland	Mather & Platt	Wilo	
208	Air Break Contractors	Seimens	L&T	ABB		
209	Air Release Valve	Rb	Tbs	Cimbrio	Zoloto	
210	Alarm valve & Hydraulic (Alarm motor with coupling)	HD fire protect	Mather&Platt			
211	Alternator	Stamford	Lorey Somer	Kirloskar	Toyo denki	AVK
212	Ammeter, Voltmeter, PF, kW, Hz, meter (Analogue), Energy Meter	AE	Enercon	Conzerve		
213	Ball Valve	Rb	Zoloto	Leader	Danfoss	Sant
		Rapid	Castel	Emerald Audco		
214	Battery	Exide	Amco	Amaraja	Chabbi	Statcon
215	Butt welded fitting (UL Listed	V.S.Forge	True Forge	DRP-M		
216	Butterfly valves / C.I. Double flanged	Interval	Leader	Audco	Kirloskar	Advance

	sluice Valves & check valves					
217	Cable lugs and glands	Comet	Dowell	Lotus	Jainson	
218	Cables	Universal	CCI	Gloster	Elektron	Polycab
		Finolex				
219	Control / Potential / Current Transformer	Precise	Gillbert & Maxwel	AE	Kappa	
220	Deluge valve	Eversafe	HD	Tyco		
221	ELCB	MG	MDS Legrand –Lexic	L&T Hager	Siemens	
222	Electrical Motors	Kirloskar	Seimens	Crompton	Wilo	Mather & Platt
223	Epoxy Paint	ICI	Berger	Asian	Nerolac	
224	Fire Aid / Fire Hose Reels, GM short branch pipe, 2/3/4 FB inlet/draw off connection	Ceasefire	Newage	Safeguard	Minimax	Usha fire
225	Fire Buckets	Safex	Minimax	Peter Autokit		
226	Fire Extinguisher	Safex	Minimax	Peterautokit	Omaxe	Padmini Fire
		Ceasefire	Newage	Exflame		
227	Fire Hose Pipes	Ceasefire	Newage	Safex	Jayshee	Ushafire
228	Fire Hydrant Valves	Ceasefire	Newage	Safeguard	Minimax	Peterautokit
229	Fire Man's Axe	Ceasefire	Newage	Safeguard		
230	Flexible trailing cable for lifts	Lapp Kabel	Approved equivalent			
231	Flow switch	Potter	System sensors	Rapid flow		
232	Foot Valve (Cast iron/ Gunmetal)	Kirloskar	Neta	Leader	Zoloto	
233	Forged steel fitting	V.S.Forge	True Forge	DRP-M		
234	Forged Steel Fittings & Flanges (For Welded joints)	Rohini	Kanwal			
235	GI clamps	Chilly	Hilti	GMGR		
236	Gl , MS Pipes	Tata	Jindal Hissar	Praksh Surya	BST	
237	Gunmetal Branch Pipe	Newage	Ushafire	Safeguard		
238	Gunmetal Valves	Audco	Interval	Advance		

	(fullway Check and Globe Valves)					
239	Hose Reel	Minimax	Usha Fire	Omaxe	Padmini Fire	Newage
		Ceasefire	Safeguard			
240	Hydrant Valves	Newage	Minimax	Peterautokit	Safeguard	Ceasefire
241	Indicating Lamps & Push Buttons	L&T	Technico	Led Type		
242	Non-Return Valve – Swing	Intervalv e	Audco (Cast Iron)	Zoloto	Sant	
243	Nozzle	Newage	Safeguard	Usha Fire	Minimax	
244	Over Load Relays	GE	L&T	Siemens		
245	Pipe coat material (pipe protection)	Pypcoat	Makphalt	Safex		
246	Pipe External Protection	Pipe Kote (4mm thick)	Equivalent or other approved makes			
247	Pipe Hangers	Chilly	GMGR			
248	Power/auxili ary Contactors	MG	Siemens	ABB	GE	L&T
249	Pressure guage	Fiebig	H.GURU			
250	Pressure Switch	Danfoss	Indfoss	Switzer		
251	Push Buttons, Indicating lamps LED	MG	L&T	Schneider		
252	RRL Hose	Jayshee	Newage	Ushafire	Padmini Fire	Ceasefire
		Safeguar d	Superex	Jyoti		
253	Single Phase Preventer	L&T	Minilac	Grinnel	Tyco	Viking
		Eversafe				
254	Sluice Valves	Kirloskar	Audco	Unik	Leader	Zoloto
		Sant				
255	Solenoid valve, Spray nozzle	Parker	HD	Tyco	Emersion	
256	Sprinkler (ICV)	HD	Tyco	Reliable	Wormald	Viking
257	Sprinkler Heads /Water Curtain Nozzle	Grinnel	Tyco	Viking	Eversafe	Reliable
		HD	Firesafe			
258	Steel flexible extension	Eversafe	Safex	Tyco		
259	Suction “Y” Type Strainer	Kirloskar	Leader	Zoloto	Sant	

260	Vibration Eliminator	Resistoflex	D waren	Kanwal		
261	Weld Electrodes	Advani	ESAB	L&T		
262	Deluge valve	Tyco	Viking	HD		
263	Fire Hydrants (Landing Valves)	Padmini	Safegaurd	Newage		
264	Hose Reel Drum & Tube	Padmini	Safegaurd	Newage		
265	Hose Pipes	Padmini	Safegaurd	Newage		
266	Branch Pipes	Padmini	Safegaurd	Newage		
267	Fire Brigade Inlet & Draw Off Connections	Padmini	Safegaurd	Newage		
268	Fire Men,s Axe	Padmini	Safegaurd	Newage		
269	Fire Extinguishers	Padmini	Safegaurd	Newage		
270	Flexible Pipe for Sprinkle	Padmini	Safegaurd	Newage		
271	Sprinkler Head	HD	Tyco	Newage		
272	Fire Pumps	Kirloskar	M&P			
273	Installation Control Valve/ Fire alarm Valve	HD	Viking			
274	Flow Switch	System Sensor	Rapid Control	Potter		
275	Stainless Steel Railing, Accessories etc in Grade SS 316	Dorma	D-line	Geze	Ozone	Q-railing
		Koncept				
3. HVAC WORKS						
S. No.	**Details of Equipment / Material**	**Make / Manufacturer**				
	Chillers					
276	Water Cooled Centrifugal Chillers With VSD **(AHRI Certified)**	Carrier	Daikin	Trane	Dunhumbush	Jhonson
277	Rotary Screw Water-cooled Water Chilling Machine **(AHRI Certified –**	Carrier	Daikin	Trane	Dunhumbush	Jhonson

	200 TR & Above)					
278	Rotary Screw Water-cooled Water Chilling Machine **(Below 200 TR)**	Carrier	Daikin	Trane	Dunhumbush	Jhonson
		Blue Star	Voltas	Hitachi		
279	Rotary Screw Air-cooled Water Chilling Machine **(AHRI Certified - 100 TR & Above)**	Carrier	Daikin	Trane	Dunhumbush	Jhonson
280	Rotary Screw Air-cooled Water Chilling Machine **(Below 100 TR)**	Carrier	Daikin	Trane	Dunhumbush	Jhonson
		Blue Star	Voltas	Hitachi		
281	Magnetic Bearing Water Chilling Machine	Daikin	Trane	Dunhumbush	Jhonson	
282	Scroll Air-cooled / Water Cooled Water Chilling Machine	Carrier	Blue Star	Voltas		
283	VRV / VRF System (Outdoor / Indoor Units, Copper Y Joints and Fittings, Central & Remote Controller)	Daikin	Toshiba	Mitsubishi	LG	Samsung
		Hitachi	O General	Panasonic	Blue Star	
284	Air-cooled Ductable Split Unit	Voltas	Blue Star	Daikin	Hitachi	LG
		Carrier				
285	Air-cooled Packaged Unit	Voltas	Blue Star	Daikin	Hitachi	LG
		Carrier				
286	Air Cooled Hi-wall / Cassette Unit	Voltas	Blue Star	Daikin	Hitachi	Carrier
		ETA-O-General				
287	Air Cooled Precision AC Unit	Emerson	APC	Stulz	Blue Box	

288	Horizontal Split Casing / Vertical Inline / End Suction / Monoblock Pump Sets (For Primary CHW Pumps & Condenser Water Pumps & Hot Water Pumps)	ITT Xylem	Armstrong	Grundfoss	Wilo	Kirloskar
289	Variable Speed Pumping System (For Secondary Chilled Water Pumps Motors)	ITT Xylem	Armstrong	Grundfoss		
290	Variable Frequency Drive (For Pumps, Cooling Tower & AHU)	Danfoss (FC 102)	ABB (ACH 550)	Siemens (Sinamics G120P)		
291	Air Separator & Expansion Tank	Emerald	K D Agency	Spirotech		
292	Cooling Tower (CTI Approved & Certified)	Paharpur	Delta	Advance	Bell	
293	Air & Dirt Separator, Automatic Air Vent, Vacuum Degasser	Spirotech	Comfort	Spirotherm		
294	Hot Water Generator & Pan Humidifier	KEPL	Emerald	Rapid Cool		
295	Electrochemical Water Treatment & Disinfection System (For AC Plant)	Elgressy	Terragon	ENPAR Technologies		
296	Air Handlers Unit	Zeco	Edgetech	Waves	Flakt	System Air
297	Fan Coil Unit	Zeco	Edgetech	Waves	Flakt	System Air
298	ARI certified Cooling / Heating Coil (AHU & FCU)	Zeco	Edgetech	Waves	Flakt	System Air

299	AHU Fans (AMCA Certified for Sound & Performance)	Comferi	Krugger	Wolter	Nikotra	
300	Heat / Energy Recovery Wheel	DRI	Novelair-Sevcon	Greenheck	Enventus	
301	Air-washer & Wet Scrubber	Zeco	Edgetech	Waves	Airflow	
302	Dry Scrubber	Espair	Trion	Waves		
303	Scrubber & Air-washer Fans (AMCA Certified for Sound & Performance)	Comferi	Krugger	Wolter	Nikotra	
304	Acoustically Insulated Box Type Inline Fans	Greenshank	Kruger	Wolter	Airflow	Pineair-Ostberg
		Caryaire				
305	Axial Fan / Centrifugal Fan (AMCA Certified for Sound & Performance)	Greenshank	Airflow	Krugger	Wolter	Comefri
306	Propeller Fan	GE	Usha	Bajaj		
307	Three phase motors	ABB	CG	Siemens	Marathon	
308	Three phase motors (250°C for 2 Hours)	Marathon	Havells-Lafert	Baldor		
309	Water Piping	Tata	SAIL	Jindal Hissar	Prakash Surya	
310	Y-strainer / Pot – strainer	Emerald	Betaflo	Rapid Cool		
311	Butterfly Valve (Manual & Motorized)	Advance	Audco			
312	Actuator for Motorised Butterfly Valve	Belimo	Siemens	Danfoss	Honeywell	
313	Manual Balancing Valve	Advance	Audco			
314	Dual Plate Check Valve	Advance	Larsen Toubro	Audco		
315	Automatic Balancing Valves	Danfoss	Flowcon	TA	Siemens	
316	Pressure Independent Balancing Cum 2-way	Danfoss	Flowcon	TA	Siemens	

	Control Valve (Single Body)					
317	Three Way / Two Motorized Valves, Thermostat / Humidistat	Siemens	Johnson	Honeywell	Danfoss	
318	Globe / Ball Valve (With or Without Strainer)	Giacomini	Betaflo	Leader	Rapid Cool	Sant
319	Auto Air Vent Valve	Giacomini	Spirotech	Airtech		
320	Pressure Gauges	Feibig	Emerald	H Guru	Taylor	
321	Industrial Type Thermometer (Alcohal filled V form)	Feibig	Emerald	H Guru	Taylor	
322	GSS Sheet	Sail	Tata	Jindal		
323	Factory Fabricated Duct	Rolastar	Zeco	Ductofab	Waves	
324	Aluminium Sheet	Hindalco	Nalco	Balco		
325	Vibration Isolation Spring & Flexible Pipe Connector	Easyflex	Resistoflex	Dunlop	Kanwal	
326	VAV Boxes	Titus	Conaire	York	Johnson	
327	CAV	Conaire	Trox	Airflow		
328	Fire & Smoke Damper Spring Type	Caryaire	Mapro	System Air		
329	Fire Damper Actuator	Belimo	Siemens	Danfoss	Honeywell	
330	Extruded aluminum grills / Diffusers	Caryaire	Mapro	System Air	Tristar	
331	Pre Filters, Fine Filters & Hepa Filters	Thermodyne	Klenzoid	Purolator	Spectrum	Mechmark
332	Closed Cell Fire Retardant XPE (For Duct Insulation)	Paramount	Supreme	Trocyllene		
333	Nitrile Rubber For Pipe / Duct Insulation (With Mechanical	Armaflex	Vidoflex	Furobatex	K Flex	

	& UV Protection)					
334	Expanded Polystyrene (For Underdeck / Overdeck Insulation)	Mettur Beardsell	Styrene Packing	Toshiba	Indian Packaging	
335	Fibre Glass Rigid Board	U.P.Twiga	Owen corning	Kimco		
336	Paints	ICI	Asian	Berger	Nerolac	
337	Tar felt / CPRX compound	Shalimar tar product				
338	Dash Fasteners	Fisher	Hilti	Bosch		
339	Welding Rods	Advani	L&T	Esab		
340	Insulated Flexible Duct	Pineair	Atco	Caryaire		
341	Duct / Pipe Support	Easyflex	Gripple	Resistoflex		
342	Copper Refrigerant Piping	Mandev	Rajco	Shree Shyam	Mexflow	Mehta tube
343	Copper Refrigerant Pipe Insulation	Armaflex	Aeroflex	Kflex	Aflex	
344	Imported Duct Mounted Ozone System	Ruks	Trimed			
345	Imported AHU UVC / CoiloTron / UVGI	Ruks	Trimed			
346	Electrical Panel, Console Panel & Sub-Panels	KEPL	Tricolite	SPC Electrotech	System Power Control	
347	Air-Circuit Breaker	L&T	Siemens	Schenider		
348	M.C.C.B.	L&T	Siemens	Schenider		
349	MCB	L&T	Siemens	MDS		
350	Starters, Contactors, Push Buttons, Overload Relay	L&T	Siemens	Schenider		
351	Single Phase Preventer	L&T	Siemens	Minilec		
352	Current Transformer	G & M	Kappa	Precise	C & S	
353	Rotary Switches	L&T	Siemens	BCH		

354	Selector & Toggle Switch	Kaycee	L&T			
355	Change Over Switch	Elecon	L&T			
356	HRC Fuse and Fittings	L&T	Siemens	C & S		
357	Voltmeter / Ammeter	A.E.	IMP	Elmeasure		
358	Indicating Lamps	Siemens	L&T			
359	Time Delay Device	Siemens	L&T	BCH.		
360	Power Cable & Accessories	Worldcab	Gemscab	Finolex	KEI	
361	Control Cable & Accessories	Worldcab	Gemscab	Finolex	KEI	
362	MS Conduits ISI Approved	BEC	Steelcraft	AKG		
363	TDRs	LT-LK	BCH			
364	GI Cable Tray (Factory Fabricated)	CTM Engg	KEPL	MEM	Rico	
365	Vacuum Degasser	Spirotech	Comfort	Spirotherm		
366	BMS System					
a)	Software	Honeywell	ALC	Siemens		
b)	Network Area Controller	Honeywell Trend	ALC	Siemens		
c)	Third Party Integrator	Honeywell Trend	ALC	Siemens		
d)	Central and DDC Controllers	Honeywell Trend	ALC	Siemens		
e)	Ultrasonic BTU / Flow Meters	Forbes Marshall	Landis & Gyr	Siemens	Fuji	
f)	Immersion Temperature Sensor	Honeywell	ALC	Siemens	Elektron	
g)	Return Air Temperature Sensor	Honeywell	ALC	Siemens	Elektron	
h)	Network / Remote Operator Terminal	Honeywell	ALC	Siemens		
i)	Smoke Sensor	Honeywell	MSR	MSA	Elektron	
j)	Temperature plus RH Sensor	Honeywell	ALC	Siemens		
k)	Differential Pressure Switch-Air	Honeywell	Siemens	Beck		
l)	Differential Pressure	Honeywell	ALC	Siemens	Danfoss	

	Switch-Water					
m)	Computer	IBM	Compaq	HP	Dell	
n)	Laser Printer	HP	Sharp	Canon		
o)	Communication Cable	Molex	Fusion Polymer	Belden	R&M	
p)	Signal Cable	Delton	Fusion Polymer	Skytone		
q)	CO2 Sensor	MSR	Siemens	Honeywell	Elektron	
r)	CO Sensor (Electro Chemical Gel Based)	MSR	MSA	Honeywell	Elektron	
s)	Level Switch	Dwyer	Radix	Veksler		
t)	Current Relay	ABB	Minilac	Seto		
u)	DC Voltage Transducer	ABB	Siemens	Seto	Mosibus	
v)	Multifunction Meter with Communication Port	Conzerve	L&T			
w)	Lux Level Sensor	Honeywell	Schneider	Siemens	Hager	
x)	Differential Pressure Transmitter-Air	Honeywell	Siemens	Beck		
y)	Pressure Transmitter-Water	Honeywell	Siemens	Schnider		
367	Digital Thermostat / Humidistat	Siemens	Honeywell	Carrier Race		
368	Any Missing Item	Prior Permission is required from HVAC Consultant				
4. ELECTRICAL WORKS						
S. No.	**Details of Equipment / Material**	**Make / Manufacturer**				
369	Air Circuit Breaker (Model shall be as per Tender Specification & BOQ)	L&T	Schneider	Siemens	ABB	Mitsubishi
		Legrand	C&S			
370	MCCBS Breaker (Model shall be as per Tender	L&T	Schneider	Siemens	ABB	Mitsubishi
		Legrand	C&S			

	Specification & BOQ)					
371	SFU / FSU	L&T	Schneider	Siemens	ABB	C&S
372	HRC/ HBC Fuses & Bases	L&T	Schneider	Siemens	ABB	
373	MCB/ MCB Isolators	L&T	Schneider	Siemens	ABB	Legrand
		C&S				
374	RCCBS/ RCBOS	L&T	Schneider	Siemens	ABB	Legrand
		C&S				
375	MCB Distribution Boards	L&T	Schneider	Siemens	ABB	Legrand
		C&S				
376	Change Over Switch (Off Load/ On Load)	L&T	HPL	Socomec	C&S	
377	Metal Clad Sheet Steel Enclouser Socket/ Plug Box	L&T	Schneider	Siemens	ABB	Legrand
378	Automatic Transfer Switches	Asco	Russel	Socomec		
379	Load Break Switches	L&T	Schneider	Siemens		
380	FR/ FRLS/ Fire Survival PVC Insulated Copper Wires/ Cables (Armoured or otherwise)	KEI	Polycab	Finolex	CCI	Batra Henlay
		Havells	National Cables			
381	Modular Plate Switches & Sockets	Wipro (North-West)	Schneider	Crab Tree	MK	Legrand
		Philips	Simon	C&S		
382	Trivector Meter	L&T	Secure	Conzerv	HPL Socomec	Enersol
		Pulse Equipment				
383	Light Fixtures (LED)	Wipro	Insta Power	Philips	Regent	Legero
		Panasonic				
384	Façade & External Lighting	Bajaj	Philips	Trilux	Regent	Legero
385	Luminaries	Wipro	Crompton	GE	Philips	Osram
		Bajaj	Keselec	Insta Power	HPL	Lustre
		Twinkle Luminaire	Nova	Havells		
386	Telecommunication / TV Cable	Polycab	National Cables	Fusion Polymer Industries	Lapp Cable	Finolex
		Havells	Skytone	Batra Henlay		

387	LT Panel/ PCC/ MCC/ MCBS/ DG Synchronizing Panels/ APFC/ Panels/ Control Panels/ Feeder Pillars/ Service Pillars / H.T. Panel	Tricolite	Advance Panel & Switchgear	Adlec	Ambit Switchgear	SPC Electrotech
		Or any other Panel manufacturer complying the following conditions:				
		1) CPRI certificate not older than 5 years.				
		2) Form of Separation-3B				
		3) Panel manufacturer make approval shall be taken by Architect / Consultant before ordering the panel.				
		4) Fabrication facility up to IP 54/55.				
		5) 7 tank pre treatment facility for sheet.				
		6) Equipped with latest CNC bending, powder coating, Bus Bar bending & punching machine and compressor etc.				
388	a) Conventional Bustrunking & Rising Mains	Tricolite	Advance Panel & Switchgear	Adlec	SPC Electrotech	Same make as that of the LT Panels.
	b) Sandwitch Busduct	Schneider	Legrand	GE		
389	PVC Conduit (ISI Marked)	BEC	AKG	Polypack	Atul	
390	Steel Conduit (ERW) (ISI Marked)	BEC	AKG	RMCON	Atul	
391	Flexible Conduit	Lapp	Hensel	Jainsons		
392	Bakelite Sheet	Hylam	Formica	Greenpanel		
393	Computer/ Data Cable	Systimax	Shyam	Lucent	Avaya	Lapp
394	Voltage Transformers	Siemens	L&T	Kappa	Anand Power Tech	PEPL
395	Current Transformers	Siemens	L&T	Kappa	Anand Power Tech	PEPL
396	AMP Meter/ Voltmeter / Energy Meter/ MFM	Conzerv	Socomec	L&T	Trinity	Enersol
		HPL				
397	Ceiling Fan	Crompton	Bajaj	Usha	Havells	
398	Exhaust Fan	Crompton	Bajaj	Usha	Polar	Havells
399	Tag Block	Krone	Ericson	TVAR&M		
400	Transformers	Voltamp	Kotsun	Universal	Kirloskar	Essenar
		Rectifier & Control				
401	Automation Power Factor Control Relay	L&T	Schneider	Siemens	ABB	
402	Capacitors & Reactors	L&T	Schneider	Siemens	ABB	
403	Cable Glands (Double Compression with	Dowells	Comet	Brasco	HMI	Gripwell
		Lapp	Multi	Comex	Baliga	

	Earthing Links)					
404	Bi-Metallic Cables Lugs/ PVC Glands	Dowells	Action	Jainsons	Kabel	
405	Cable Jointing Kits	Raychem	Jainsons	3M	Densons	Safeki
406	Cable Trays (Factory Fabricated) / Raceways	Pilco	Slottco	Patney System Ltd.	Storack	Indiana
		Steelways	CTM Engineers	Profab	MEM	Bharti
407	Battery (Sealed Maintenance Free)	Yuasa	Powersafe	HBL Nife	Amco	Exide
		Amara Raja	Standara	Batteries	Standard-Furukawa	
408	Battery Charger	BCH	Lobotek	HBL Nife	Amara Raja	Chabi
		Caldyne	Crompton Greaves			
409	DG Set	Caterpillar	Cummins	Penta	Mitsubishi	MTU
		Volvo Penta (Up to 600 KVA only)	Perkins			
410	DG Set Alternator	Stamford	Lerroy Sommer			
411	Control Gear (Contractors etc.)	L&T	Schneider	Siemens	ABB	
412	Protection Relays Microprocessor Based	L&T	Schneider	Siemens	ABB	Areva
413	Earth Leakage Relay	L&T	PIC	Minilec	Eaton	
414	Single Phasing Device	L&T	Siemens	Minilec		
415	Push Buttons	L&T	Schneider	Siemens	ABB	
416	Time Relay Device	L&T	Schneider	Siemens	ABB	
417	Selector Switches & Rotary Switches	L&T	Schneider	Siemens	ABB	
418	Indicating Lights	L&T	Schneider	Siemens	ABB	
419	Terminals	Elmex	Essen	Deinki	Wago	
420	MS Swaged Tubular Pole Street Light Poles	ASPL	Advance Steel Tubes	Klite	Philips	Orients
		Laasma	Keselec	Bajaj	Lustre	Wipro
421	Telephone Outlets	As per Switch / Socket Make.				
422	Motors	ABB	Crompton	Siemens	Kirloskar	Bharat Bijli
		Jyoti	NGEF			

423	EPBAX & Telephone System	Siemens	Ericsson	Tadiron	Mytel	
424	Multi-Meter & Meggars	Escrop	Motwani			
425	Programmable Logic Controller	Siemens	Woodward	Allen Bradley		
426	Lighting Protection Unit	ABB	Erico	Schneider	LPI	OBO Betterman
427	UPS	APC Schneider	Emerson	Tata Libert	Socomec	GE Power
		Auto Meter Alliance	Eaton Power	Siemens		
428	Package Sub-Station (With Off Load Tap Changer)	Schneider	ABB	L&T	Siemens	Universal
429	United Sub-Station (With On Load Tap Changer)	Ambit Switchgear	Sudhir Engineering	Universal		
430	Pumps	Kirloskar	Crompton	Grundfoss	KSB	Mather & Platt
		Beacon	Worthington			
431	Aviation Obstruction Light	Bajaj	Wipro	Philips	GE	Crompton
		Insta Power				
432	High Mast Lighting System	Philips	Bajaj	Crompton	Thron	Keselec
		Insta Power				
433	LT Servo Automatic Voltage Stabilizer	AE	Logicstat	LD Power Transformers Ltd.	Stabline	Recon
		Icon	Globe			
434	D.G. Set Acoustic Enclosure	As per DG supplier and approved by EIC and Consultant/Architect.				
435	M.S. Pipe	Tata	Jindal	SAIL		
436	Butterfly / Balancing Valve	Advance	Audco			
437	Cooling Tower	Bell	Paharpur	Delta		
438	Pot Strainer / Y Strainer	Rapid Cool	Emerald	Sant		
439	CCTV Camera / Dvr / Nvr	Mobotix	Impulse	Axis	Pelco	
440	Access Control	Syris	ESSL	Matrix	Impulse	Infianis
441	CAT 6A	Belden	Molex	R&M		
442	Lifts / Elevators	Otis	Kone	Mitsubishi	Johnson Lifts	Schindler

FIRE ALARM SYSTEM						
443	Fire Alarm System	Honeywell Notifier	Honeywell Esser	Siemens	Shrack	Edward
444	Response Indicator	Reputed Brand as approved by Architect/ Consultant.				
445	PA System	Honeywell	Aties	Bose Prasedio	Ahuja	Ravel

ANNEXURE-XI TO SCC
(Ref: SCC Clause 68)

SAFETY CODE

1. 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-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than ¼ to 1(¼ horizontal and 1 vertical.)

2. Scaffolding of staging more than 3.6 m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) 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.

3. 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 than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.

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

5. 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. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11½") for ladder up to and including 3 m. (10 ft.) in length. For longer ladders, this width should be increased at least ¼" for each additional 30 cm. (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or 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 defence of every suit, action or other proceedings 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.

6. (a) Excavation and Trenching - All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 ft.) in length or fraction thereof, Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are 1.5 m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. (5ft.) 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.

(b) Safety Measures for digging bore holes:-

(i) If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;

(ii) During drilling, Sign boards should be erected near the site with the address of the drilling contractor and the Engineer in-charge of the work;

(iii) Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50m all-round the point of drilling to avoid entry of people;

(iv) After drilling the bore well, a cement platform (0.50m x 0.50m x 1.20m) 0.60m above ground level and 0.60m below ground level should be constructed around the well casing;

(v) After the completion of the bore well, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;

(vi) After the bore well is drilled the entire site should be brought to the ground level.

7. Demolition - Before any demolition work is commenced and also during the progress of the work,

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

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

(iii) 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 so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment as considered adequate by the Company Representative should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned: - The following safety equipment shall invariably be provided.

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

(ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.

(iii) Those engaged in welding works shall be provided with welder's protective eye shields.

(iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

(v) When workers are employed 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 to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:

(a) Entry for workers into the line shall not be allowed except under supervision of the Sub Engineer or any other higher officer.

(b) 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 manhole for working inside.

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

(d) 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.

(e) 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.

(f) 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.

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

(h) 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.

(i) 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.

(j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.

(k) 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.

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

(m) 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.

(n) Workmen descending a manhole shall try each ladder stop 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.

(o) 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.

(p) 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.

(vi) 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 precaution should be taken:-

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

(b) 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.

(c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.

9. The Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:

(i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.

(ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of paint in the form of spray.

(iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.

(iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

(v) Overall shall be worn by working painters during the whole of working period.

(vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.

(vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man.

(viii) The Company may require, when necessary medical examination of workers at the cost of the Contractor.

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

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

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:-

(i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.

(b) 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.

(ii) 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 give signals to operator.

(iii) 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 condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

(iv) In case of Company machines, the safe working load shall be notified by the Electrical Representative. 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 it verified by the Electrical Engineer concerned.

12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. 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 to 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 should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

13. All scaffolds, 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.

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

15. 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 the Labour Officer or Engineer-In-Charge of the department or their representatives.

16. Notwithstanding the above clauses from (1) to (15), 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.

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ANNEXURE-XII TO SCC
(Ref: SCC Clause 68)

COVID-19 SPECIFIC SITE HEALTH AND SAFETY MANAGEMENT PLAN

Guidance note:
This document on COVID-19 specific construction workplace safety management plan to be adopted by the Contractor captures the select practices of construction workplace safety essential in the context of 'COVID-19' pandemic based on current scenario. However, given the dynamic situation of COVID-19 arising out of every wave of infection, the information/ recommendations/ measures contemplated herein may not be entirely relevant as presented on date and therefore to be read as such. These COVID-19 construction workplace safety measures are to be adopted over and above those included in the standard HSE policy referred at SCC Clause 68.

Introduction
Both the Company and the Contractor are responsible for ensuring the implementation of and compliance with these COVID-19 rules and other applicable requirements issued by the Government. These regulations are centered around the safety and wellbeing of construction workers under the statutes such as: The Building and Other Construction Workers Act (BOCW), Epidemic Disease Act 1897, National Disaster Management Act 2005, The Contract Labour Act, Government of India, Ministry of Home Affairs order (15 April 2020), Ministry of Health and Family Welfare safety awareness guidelines and State Disaster Management Authority guidelines etc. issued from time to time. This document is not meant to supersede those requirements.

This document includes selected construction workplace safety practices that may be followed at construction sites, which are also in line with the ones issued by the Government and concerned authorities.

Careful planning, awareness and compliance monitoring and reporting will be required on a regular basis to ensure enlisted practices are followed at sites. The workforce will need to be trained to enable them to follow these new norms applicable to their routine construction tasks during the COVID-19 pandemic.

The process of documentation will become particularly important during COVID-19. Staff data, in terms of recent travel history, medical history, symptoms if any and data which would enable contact tracing to identify persons who could potentially be infected, is critical to not only to inform the government authorities promptly, but also identify the infected zone and track down at-risk individuals in and around the site, should the incidence have emerged from the site.

The Safety practices hereunder are organized keeping in view typical work activities undertaken by construction staff on daily basis.

There is specific focus in this document on technology, governance and training which will further strengthen the Safety practices.

Overall, the COVID-19: Construction workplace safety measures shall involve the following major areas of concern:
1. Transportation to and from construction site
2. Site access and construction areas
3. Labour colony protocols
4. Material Management
5. Training & Awareness
6. Governance & Reporting
7. Technology Intervention

1. Transportation to and from construction site

- Screening, sanitization and safe distancing norms need to be duly followed prior and during transportation of construction staff to and from site. Travel time can also be effectively utilized to create awareness of the required safety norms.

- Working hours may be staggered if possible, or remote working options for project management staff be put in effect to minimize the number of construction staff at site.

- Non-essential visitors should be discouraged to visit construction site.

- Additional practices for transportation of construction staff could include the following:
  1. Vehicles being used to transport workers to construction sites or vice-versa to be thoroughly disinfected prior to onboarding of staff for each trip.

  2. Every worker to undergo temperature screening and only the ones 'fit to travel' to be allowed to board the vehicle.

  3. Adequate marking on the ground to be put in place for staff waiting to be screened to comply with safe distancing norm.

  4. Log of workers screened to be maintained and anyone suspected of symptoms post screening to be prevented from onboarding from the labour camp, before start of day's work. Instance to be reported to the company safety coordinator immediately for such cases on daily basis Workers 'fit to travel' to be allowed boarding the vehicle.

  5. Wearing of suitable masks and Personal Protective Equipment (PPE) as per regulatory guidelines to be made mandatory at all times.

  6. 'Journey management plan' documenting the travel route, time, and traveler details to be prepared for each trip.

  7. Safe distancing norms to be practiced in the vehicle to seat the workers. Additional trips or vehicles to be arranged to accommodate the required number of staff. No one to be allowed to travel while standing in the vehicle.

  8. Travel time to be utilized to create awareness about construction worker safety norms using audio – visual mediums and/or display of educational graphic media in the vehicle.

  9. Vehicle wash down/disinfection area to be created at site entry to ensure adequate safeguards.

  10. Traffic warden to be deployed at drop off location to ensure safe distancing measures are maintained while off boarding of worker from more than one vehicle.

  11. Construction staff to be off boarded from the vehicle while ensuring safe distancing norms.

2. Site Access and working areas

- Each construction site, contractor and its subcontractors are recommended to appoint one or more COVID-19 Safety Coordinators, who should be tasked to ensure compliance for their respective staff against the set out COVID-19 safety compliance procedures on daily basis.

- Covid-19 compliance procedure to be mandatorily included in the Sub-Contractor's site- specific safety manuals. Post review and approval of the safety manual by the approving agency (owner, owner's representative, general contractor, etc.), site mobilization to be allowed.

- Site safety manuals to clearly highlight work activities and corresponding mitigation plans to be identified where COVID-19 safety procedures might be difficult to adhere to, given the nature of work (E.g.: Concrete pour, lifting – transporting material, etc.), PPEs (face shields, fall protection ropes, etc.), tools, equipment which could be potential transmission points due to shared use.

- Approved mitigation measures to be discussed prior to start of work. Product cut sheets of the sanitization products to be deployed by the contractor to be identified upfront and submitted for approvals

- Consumption of tobacco, smoking and spitting in open to be strictly prohibited inside the construction site.

- COVID-19 awareness signage, posters in regional languages to be installed at all traffic prone areas including entry, exit points, labour camps, break out areas, canteens, meeting rooms, fabrication yards, material docks, stores etc.

- As the construction staff arrives at site, following procedures to be followed. Once the construction staff enters the site, their movement outside of the site to be restricted, in case of exit and re-entry the suggested steps to be reperformed

A. Site Access:

  - Install adequate mark up on ground to help staff comply with safe distancing norm as they que up for gaining site access.

  - Conduct temperature scan of staff for COVID-19 screening at start and end of shifts. Log in staff details basis predefined questionnaire pertaining to travel history, if the individual came in contact with any COVID-19 positive individual during last 24 hours, or at the end of shift if they are experiencing any COVID-19 symptoms. Exceptions to be highlighted to site safety in-charge and also reported immediately to regulatory authorities as prescribed in next steps.

  - A colour-coded entry pass (one for each day of week) to be provided to the staff upon entry to represent 'fit to work' staff.

  - The pass to be worn at all times during stay at the site and be visible to others.

  - Designate area for staff to wear PPE to be disinfected at least twice a day. PPE, radios (walkie-talkie) to also be disinfected before and after use. No sharing of PPE, radios (walkie-talkie) between staff.

  - Use of regulatory authority prescribed safety mask to be made mandatory for staff while at site.

  - Mandatory site orientation meeting and safety toolbox for site staff prior to start of daily work to be conducted. Agenda items to include daily work plan and COVID-19 safety procedures to be maintained for the activities as per workplan and in general during the stay at site.

  - Daily orientation meetings and toolbox talks to be held in open areas preferably while maintaining safe distancing norms. If to be conducted

in rooms, then only number of individuals that can maintain safe distancing to be allowed, else additional sessions to be conducted

B. Site Office

- Identify typical visitors list and limit their access into the site office, tasks that can be addressed outside (e.g.: dropping of forms, etc.) or at a different location, to be encouraged.
- Post signages at the entrances 'Restricted access'.
- Handwash sink to be piped to secured drains, or hand sanitizers to be made available for visitors / staff at entrance. Additional hand sanitizers to be made available in each room.
- Develop checklist of all commonly used items (doorknobs, pantry equipment, stair rails, chairs, etc.) and surfaces (pantry counters, sinks, etc.) to be wiped cleaned periodically by sanitizer solution by housekeeping staff. Construction safety coordinator to ensure procedural compliance.
- Site office to be disinfected at a minimum prior and post completion of work on daily basis.
- Sharing of commonly used items including pens, computer equipment, etc. to be avoided. Prior to use, should be sanitized.
- Meeting rooms to limit attendance for staff based on distancing norms to be maintained. Seats to be placed at minimum distance following safe distance norm, additional seats from the room to be removed to encourage limited attendance

C. Lunchrooms/Canteens

- Stagger break/lunch hours to reduce number of staff in the room at the same time.
- If possible, deploy individual to control number of individuals entering the space to encourage distancing norms, especially in case of large construction sites.
- Food should be consumed at designated areas only ensuring safe distancing.
- Post appropriate signage in the rooms to create COVID- 19 safety awareness.
- Seating arrangements to be modified complying with safe distancing norms.
- Clean and disinfect tables, microwaves and other commonly handled items (doorknobs, etc.).
- Kitchen deliveries, utensils to be cleaned prior and after use as per regulation guidelines.
- Kitchen surfaces which get frequently in contact with staff to be regularly cleaned and sanitized.

D. Stairwell, scaffold stair towers

- Institutionalize process of 'call out' by staff prior to using the stairs, this will avoid crossing over of staff on a staircase and safe distancing norms being compromised.
- Institutionalize one-way access stairwells, if possible, to avoid cross over traffic.
- Handrails to be regularly disinfected and procedure time logged in the compliance form for review.

E. Hoist Operations

- Outside the hoist, post signage for the staff to maintain safe distancing norms, install appropriate marking on the ground/floor for compliance.
- Hoist surfaces including operating buttons, etc. which are touched frequently by the operator and passengers to be disinfected regularly.
- Limit passenger capacity in the hoist to ensure compliance with the distancing norms. Advisable to install marking on the hoist floor for visitors to stand.
- Onboard passengers in a sequence to ensure they don't cross others to deboard. Individuals to deboard first should stand next to the hoist door.
- Preferably the passengers to stand facing out to avoid being in the breathing zone of others.

F. Site Sanitation Measures

- Locate hand sanitizers or handwash sinks (including temporary) with clean running water, paper towels at all high traffic areas and one in each construction zone, designated area at the site including stores, fabrication yard, etc. Provide foot operated garbage cans in all toilets and site office rooms.
- Discharge from the sinks not to be done in the open, it should be either piped to a covered drain or collected in a container which should be removed and discharged periodically into covered drains prior to flooding.
- Limit number of staff to use toilet facilities at a given time to ensure distancing norms, install signages outside of facilities mentioning capacity for use at a given time.
- Toilet facilities and fixtures to be disinfected by maintenance staff regularly and documented in procedure checklist to ensure compliance.

G. Construction Areas

- Preplan daily work and organize work areas into zones to ensure safe distancing norms are followed. Also, restrict the no. of workers in a defined zone to the extent possible.
- Prior to start/end of daily work, disinfection of tools, equipment, PPEs to be done.

- Disinfecting work zones periodically during the day, at break hours to be undertaken.

- Management to recommend staggered start, end times of crew to prevent overcrowding at entry/exit points.

- Gatherings around any inauguration, ground-breaking ceremony, top up's, vendor/sub-contractor meets, contractor reward recognition ceremonies shall not to be permitted.

- Shuffling of workers operating equipment or working in any other area of the zone to be avoided

H. On-site medical infrastructure

- Temporary isolation rooms and rest rooms to be created at site for staff who may develop COVID-19 symptoms while at site.

- Necessary tie-ups with nearest hospitals to be made for treatment of COVID-19 affected patients.

- COVID-19 safety coordinator, site safety officer at minimum to be provided training in handling and isolating any affected staff at site per statutory guidelines.

3. Labour Colony Protocols

- Limit labour dormitory occupancy to ensure compliance with distancing norms. Beds for the labour to be earmarked following proper distancing norms.

- Social gatherings to be restricted, safe distancing and recommended hygiene protocols for common facilities (dining rooms, restrooms, etc.) to be implemented.

- Labour colonies to be cleaned and disinfected on daily basis.

- Install additional hand washing stations with clean running water and soaps at common locations and at the entrance of room clusters. Handwashing stations to discharge in covered site drains.

- Install do's and don'ts posters at colony premises in all languages spoken by the workers. Audio messages through public address systems may also be used.

- Ensure compliance through security guards or use of CCTV cameras installed at strategic locations.

- Arrangements to be made for supply of all essential items like food grains, groceries, drinking water, etc. in the labour colony itself, to restrict movement of labour outside.

- Labour camps to be fenced and secured, especially on large sites, with visitor entry to be manned and restricted.

4. Material Management

- Loading/unloading zones to be clearly identified with limited access to concerned teams only.

- All vehicles entering or exiting the site to be disinfected.

- The delivery staff should go through the site access procedures as outlined earlier in the document.

- To the extent possible shipment documents to be reviewed and validated in digital formats and exchange of physical paperwork to be avoided.

- Unloaded delivery to be disinfected prior to keeping in store. In case the delivery item cannot be disinfected, the item to be stored in a separate weather protected area for 72 hours prior to use. Stores to be disinfected daily.

- Construction waste to be removed from site in covered containers/vehicles.

5. Training and awareness

- Agreements with sub-contractors to include clause to provide required trainings, PPE, other infrastructure to ensure COVID-19 safety compliance as per contract requirements.

- Sub-Contractors to update their safety induction, orientation, regular training programmes to include topic of COVID-19 safety for construction workers.

- COVID-19 safety trainings to also be conducted at predefined frequency.

- Documentation including training logs to be maintained for all trainings conducted and be readily available for review upon request.

- Institutionalize reward and recognition program for subcontractors and individuals. Three strike policy may be implemented for non-compliance, i.e., if any individual fails to comply the norms three times or more may be subjected to penalization or termination

- Recommend installation of Aarogya Setu app by individuals. This app has been developed to spread awareness about COVID-19 and notify the individual if they came in close contact with an individual with COVID-19 history.

6. Governance and reporting

- Constitute a COVID-19 response unit including COVID-19 safety officer, select members of management and owner staff and to co-ordinate and plan responses and provide information to leadership and management for decision making, prioritization of urgent actions, co- ordination with other stakeholders.

- Daily, weekly, monthly reports, senior management meetings to include status of COVID-19 safety compliances including information pertaining to worker screening (E.g.: No. of workers screened at different pre-identified locations, details of workers suspected to have symptoms).

- All meetings of the project stakeholders may be mandated to start with the status of COVID- 19 safety compliance highlighting importance of worker safety. This shall also encourage repeat messaging and stronger compliances going forward.

- Update site safety procedures including compliance checklists to include measures to be adopted for COVID-19 safety, updated job descriptions, Key performance indicators (KPI) of respective staff including COVID-19 safety coordinator, in line with revised documentation.

7. Technology Intervention

- Visual feeds for PPE monitoring.

- Thermal imaging scanners may be deployed for easy temperature screening of a group of individuals.

- Drones with options of spraying disinfectant on an isolated risk area, monitoring worker safety, making any important or precautionary announcements, thermal imaging may be deployed for large scale, spread out sites to ensure compliance.

- Digital scanners for recording staff attendance, documenting questionnaire responses in an electronic database may be deployed.

- A control centre with appropriate remote camera technology may be established at/off site for compliance monitoring of COVID-19 and other safety practices also allowing overall progress monitoring.

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ANNEXURE-XIII TO SCC
(Ref: SCC Clause 69.7)

MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY THE COMPANY OR ITS CONTRACTORS

1. APPLICATION

These rules shall apply to all buildings and construction works in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

3. FIRST-AID FACILITIES

i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.

ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment:-

a) For work places in which the number of contract labour employed does not exceed 50: Each first-aid box shall contain the following equipments:

1. 6 small sterilised dressings.
2. 3 medium size sterilised dressings.
3. 3 large size sterilised dressings.
4. 3 large sterilised burn dressings.
5. 1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.
6. 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
7. 1 snakebite lancet.
8. 1 (30 gms.) bottle of potassium permanganate crystals.
9. 1 pair scissors.
10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
11. 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
12. Ointment for burns.
13. A bottle of suitable surgical antiseptic solution.

b) For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipments.

1. 12 small sterilised dressings.
2. 6 medium size sterilised dressings.
3. 6 large size sterilised dressings.
4. 6 large size sterilised burn dressings.
5. 6 (15 gms.) packets sterilised cotton wool.
6. 1 (60 ml.) bottle containing two per cent alcoholic solution iodine.
7. 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
8. 1 roll of adhesive plaster.
9. 1 snake bite lancet.
10. 1 (30 gms.) bottle of potassium permanganate crystals.
11. 1 pair scissors.

12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes /Government of India.
13. A bottle containing 100 tablets (each of 5 gms.) of aspirin.
14. Ointment for burns.
15. A bottle of suitable surgical antiseptic solution.

iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

iv) Nothing except the prescribed contents shall be kept in the First-aid box.

v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.

vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.

vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.

viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.

ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.

iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.

ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.

iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

i) Latrines shall be provided in every work place on the following scale namely:-

a) Where female are employed, there shall be at least one latrine for every 25 females.

b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be up to the first 100, anode for every 50 thereafter.

ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.

iii) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.

iv) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers" For Men only" or "For Women Only" as the case may be.

(b) The notice shall also bear the figure of a man or of a woman, as the case may be.

v) There shall be at least one urinal for male workers up to 50 and one for female workers up to fifty employed at a time, provided that where the number of male or female workmen, as thecae may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereafter.

vi) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

(b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.

vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

viii) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).

ix) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-In-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The Contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft.) from the floor level to the lowest

part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm. (6 sft) per head.

Provided that the Engineer-In-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications stipulated.

ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

iii) The Contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.

iv) The Contractor shall provide one ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceeds 50.

v) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labours numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the Contractor for the use of such contract labour.

ii) The canteen shall be maintained by the Contractor in an efficient manner.

iii) The canteen shall consist of at least a dining hall, kitchen, store room, pantry and washing places separately for workers and utensils.

iv) The canteen shall be sufficiently lighted at all times when any person has access to it.

v) The floor shall be made of smooth and impervious materials and inside walls shall be lime washed or colour washed at least once in each year. Provided that the inside walls of the kitchen shall be lime-washed every four months.

vi) The premises of the canteen shall be maintained in a clean and sanitary condition.

vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.

viii) Suitable arrangements shall be made for the collection and disposal of garbage.

ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.

x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sft) per diner to be accommodated as prescribed in sub-Rule 9.

xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.

(b) Washing places for women shall be separate and screened to secure privacy.

xii) Sufficient tables stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9.

xiii) (a) 1. There shall be provided and maintained sufficient utensils crockery, furniture and any other equipment necessary for the efficient running of the canteen.

2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.

(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.

2. A service counter, if provided, shall have top of smooth and impervious material.

3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipments.

xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.

xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.

xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:-
(a) The rent of land and building.
(b) The depreciation and maintenance charges for the building and equipments provided forth canteen.
(c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
(d) The water charges and other charges incurred for lighting and ventilation.
(e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.

xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The Contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-In-Charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. AMENDMENTS

The Company may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

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CONTRACTOR'S LABOUR REGULATIONS

1. SHORT TITLE

These regulations may be called the Contractors Labour Regulations.

2. DEFINITIONS

i) **Workman** means any person employed by the Company or its contractor directly or indirectly through a subcontractor with or without the knowledge of the Company to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:-

a) Who is employed mainly in a managerial or administrative capacity: or

b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature: or

c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

No person below the age of 14 years shall be employed to act as a workman.

ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.

iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.

iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3. i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12hours on any day.

ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.

iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

b) Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

c) Where a contractor is permitted by the Engineer-In-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. DISPLAY OF NOTICE REGARDING WAGES ETC

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'III' (Labour Board).

5. PAYMENT OF WAGES

i) The contractor shall fix wage periods in respect of which wages shall be payable.

ii) No wage period shall exceed one month.

iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.

iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.

v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.

vi) Wages due to every worker shall be paid to him direct by contractor through Bank or ECS or online transfer to his bank account.

vii) All wages shall be paid current coin or currency or in both.

viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.

ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-In-Charge under acknowledgment.

x) It shall be the duty of the contractor to ensure the disbursement of wages through bank account of labour.

xi) The contractor shall obtain from the Sub Engineer or any other authorized representative of the Engineer-In-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum- Muster Roll" as the case may be in the following form:-

"Certified that the amount shown in column No. _____has been paid to the workman concerned through bank account of labour on _____ at _____."

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

(i) The wages of a worker shall be paid to him without any deduction of any kind except the following:-

(a) Fines

(b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.

(c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.

(d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.

(e) Any other deduction which the Central Government may from time to time allow.

(ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note: An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-X

(iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.

(iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.

(v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.

(vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

(i) The contractor shall maintain a **Register of persons employed** on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (Appendix IV)

(ii) The contractor shall maintain a **Muster Roll** register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix V).

(iii) The contractor shall maintain a **Wage Register** in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VI).

(iv) **Register of accident** - The contractor shall maintain a register of accidents in such form as maybe convenient at the work place but the same shall include the following particulars:

a) Full particulars of the labourers who met with accident.

b) Rate of Wages.
c) Sex
d) Age
e) Nature of accident and cause of accident.
f) Time and date of accident.
g) Date and time when admitted in Hospital,
h) Date of discharge from the Hospital.
i) Period of treatment and result of treatment.
j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
k) Claim required to be paid under Workmen's Compensation Act.
l) Date of payment of compensation.
m) Amount paid with details of the person to whom the same was paid.
n) Authority by whom the compensation was assessed.
o) Remarks

(v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL (R&A) Rules 1971(Appendix-XI). The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-X).

(vi) The contractor shall maintain a **Register of deductions for damage or loss** in Form XX of the CL (R&A) Rules 1971 (Appendix-XII).

(vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971(Appendix-XIII).

(viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971(Appendix-XIV).

8. ATTENDANCE CARD-CUM-WAGE SLIP

i) The contractor shall issue an **Attendance card-cum-wage slip** to each workman employed by him in the specimen format (Appendix-VII)

ii) The card shall be valid for each wage period.

iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.

iv) The card shall remain in possession of the worker during the wage period under reference.

v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.

vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

9. EMPLOYMENT CARD

The contractor shall issue an **Employment Card** in Form XIV of the CL (R&A) Central Rules 1971to each worker within three days of the employment of the worker (Appendix-VIII).

10. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a **Service certificate** in Form XV of the CL (R&A) Central Rules1971 (Appendix-IX).

11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-In-Charge or Labour Officer or any other officers authorised by the Ministry of Urban Development in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorised by Central Government on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Engineer-In-Charge concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the Contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the Contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer-In-Charge after the Company has given its decision on such appeal.

i) The Engineer-In-Charge shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Company concerned within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the Engineer-In-Charge concerned but subject to such appeal, the decision of the officer shall be final and binding upon the Contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:
   a) An officer of a registered trade union of which he is a member.
   b) An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.
   c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.

ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by:
   a) An officer of an association of employers of which he is a member.
   b) An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.

c) Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.

iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf.

17. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/Interpretation or effect of those regulations the decision of the Company concerned shall be final.

--xxxx--

Appendix 'I'

REGISTER OF MATERNITY BENEFITS

Name and address of the contractor: _____

Name and location of the work: _____

Name of the Employee	Father's / Husband's Name	Nature of Employment	Period of Actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of Delivery / miscarriage	In case of delivery		In case of miscarriage	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave pay paid to the employee

In case of delivery		In case of miscarriage		Remarks
Commenced	Ended	Commenced	Ended	
11	12	13	14	15

Appendix 'II'

SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR.

Name and address of the contractor: _____

Name and location of the work: _____

1. Name of the woman and her husband's name.
2. Designation.
3. Date of appointment.
4. Date with months and years in which she is employed.
5. Date of discharge/dismissal, if any.
6. Date of production of certificates in respect of pregnancy.
7. Date on which the woman informs about the expected delivery.
8. Date of delivery/miscarriage/death
9. Date of production of certificate in respect of delivery/miscarriage.
10. Date with the amount of maternity/death benefit paid in advance of expected delivery.
11. Date with amount of subsequent payment of maternity benefit.
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death.
13. If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment.
14. Signature of the contractor authenticating entries in the register.
15. Remarks column for the use of Inspecting Officer.

Appendix 'III'

Labour Board

Name of work: _____

Name of Contractor: _____

Address of Contractor: _____

Name and address of Company Unit: _____

Name of Company Labour Officer: _____

Address of Company Labour Officer: _____

Name of Labour Enforcement Officer: _____

Address of Labour Enforcement Officer: _____

Sl. No	Category	Minimum wage fixed	Actual wage paid	Number present	Remarks

Weekly holiday: _____

Wage period: _____

Date of payment of wages: _____

Working hours: _____

Rest interval: _____

Form-XIII (See Rule 75)
Register of Workmen Employed by Contractor

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____

SI. No	Name and Surname of workman	Age and Sex	Father's / Husband's name	Nature of employment/ designation	Permanent home address of theworkman (Village and Tehsil, Taluk and District)	Local address	Date of commencement of employment	Signature or thumb impression of the workman	Date of termination of employment	Reasons for terminations	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix 'V'

Form-XVI (See Rule 78(2)(a))
Muster Roll

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____
For the Month of fortnight _____

Sl. No.	Name	Father's/ Husband'sName	Sex	Natureof Work	For the period ending																															Remarks
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Appendix 'VI'

Form-XVII (See Rule 78(2)(a))
Register of wages

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____ Period: Monthly / Fortnight

Sl. No.	Name of Workman	Sl. No. in the Register of Workmen	Designation/ nature ofwork done	No. of days worked.	Units of workdone	Daily rate of wages / pieces	Amount of Wages earned					Deductions, if any (indicate nature)				Net Amount Paid	Signature / Thumb impression of Workmen	Initial of the Contract or the representative
							Basic wages	Dearness Allowance	Overtime	Other Cash payments (indicate nature)	Total	P.F.	E.S.I.	Other Deductions, if any	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Appendix 'VII'

Wage Card No. ____

Wage Card

Name and address of contractor _____ Date of Issue _____
Name and address of establishment under which contract is carried on _____ Designation _____
Nature and location of work _____ Month/Fortnight _____
Name and address of Principal Employer _____
Rate of Wages _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Morning																																Rate
Evening																																Amount
Initial																																

Received from _____the sum of Rs. _____ on account of my wages

Signature

The Wage Card is valid for one month from the date of issue

Appendix 'VII'
(Reverse)

Form-XIX
[See rule 78 (2)(b)]

Wages Slip

Name and address of contractor: _____

Name and Father's/Husband's name of workman: _____

Nature and location of work: _____

For the Week/Fortnight/Month ending: _____

1. No. of days worked: _____

2. No. of units worked in case of piece rate workers: _____

3. Rate of daily wages/piece rate : _____

4. Amount of overtime wages: _____

5. Gross wages payable: _____

6. Deduction, if any: _____

7. Net amount of wages paid: _____

Initials of the contractor or his representative

Appendix 'VIII'

Form-XIV
[See rule 76]

Employment Card

Name and address of contractor: _____

Name & address of establishment under which contract is carried on: _____

Name and address of Principal Employer: _____

1. Name of the workman: _____

2. SI. No. in the register of workman employed: _____

3. Nature of employment/designation: _____

4. Wage rate (with particulars of unit in case of piece work): _____

5. Wage period: _____

6. Tenure of employment: _____

7. Remarks: _____

Signature of contractor

Appendix 'IX'

(See Rule 77)

Service Certificate

Name and address of contractor: _____

Nature and location of work: _____

Name and address of workman: _____

Age or date of birth: _____

Identification marks: _____

Father's/Husband's name: _____

Name and address of establishment in under which contract is carried on:

_____

Sl. No.	Total Period for which employed		Nature of Work Done	Rate of wages (with particulars of unit in case of piece work)	Remarks
	From	To			
1	2	3	4	5	6

Appendix 'X'

List of Acts and Omissions for which Fines can be imposed

In accordance with rule 7(v) of the Contractor's Labour Regulations to be displayed prominently at the site of work both in English and local Language.

1. Wilful insubordination or disobedience, whether alone or in combination with other.
2. Theft fraud or dishonesty in connection with the contractors beside a business or property of CPWD.
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance.
5. Drunkenness lighting, riotous or disorderly or indifferent behaviour
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of the UPRNN or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age father's name, etc.
13. Habitual loss of wage cards supplied by the employers.
14. Unauthorised use of employer's property of manufacturing or making of unauthorised particles at the work place.
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Department and for which the contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorised divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorised by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employer during the working hours within the premises.

Appendix 'XI'

Form XII (See Rule 78(2) (d))

Register of Fines

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____

SI. No.	Name of workman	Father's/ Husband's name	Designation/ nature of employment	Act/Omission for which fine imposed	Date of Offence	Whether workman showed cause against fine	Name of personin whose presence employee's explanation was heard	Wage period and wages payable	Amount of fine imposed	Date on which fine realised	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix 'XII'

Form-XX
(See Rule 78(2) (d))
Register of Deduction for Damage or Loss

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____

Sl. No.	Name of Workman	Father's/ Husband's name	Designation/ nature of employment	Particulars of damage or loss	Date of damage or loss	Whether workman showed cause against deduction	Name of personin whose presence employee's explanation was heard	Amount of deduction imposed	No. of installments	Date of recovery		Remark
										First install-ment	Last install-ment	
1	2	3	4	5	6	7	8	9	10	11	12	13

Appendix 'XIII'

Form-XXII (See Rule 78(2) (d))

Register of Advances

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____

Sl. No.	Name of workman	Father's/ Husband name	Designation/ nature of employment	Wage Period and wages payable	Date and amount of advance given	Purpose(s) for which advance made	Number of installments by which advance to be repaid	Date and amount of each installment repaid	Date and which last installment was repaid	Remarks
1	2	3	4	5	6	7	8	9	10	11

Appendix 'XIV'

Form-XXIII (See Rule 78(2) (e))

Register of Overtime

Name and address of contractor _____
Name and address of establishment under which contract is carried on _____
Nature and location of work _____
Name and address of Principal Employer _____

SI. No.	Name of Workman	Father's/ Husband's name	Sex	Designation/ nature of employment	Date on which Overtime worked	Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earning	Rate on which overtime paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX-XV

FORM OF APPLICATION BY THE CONTRACTOR FOR SEEKING RESCHEDULING OF MILESTONES

[Refer Clause SCC 7]

1. Name of Contractor:
2. Name of work as given in the Contract:
3. Contract no.:
4. Contract Value:
5. Date of commencement of work as per Contract:
6. Period allowed for completion of work as per Contract:
7. Date of completion stipulated in Contract:
8. Rescheduling of milestones done previously:

Milestone No. already Rescheduled	EIC's Letter No. and Date	Rescheduling of Milestones done	
		Original Date	Rescheduled Date
(A) 1st Milestone			
(B) 2nd Milestone			
_____			
_____			

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Rescheduling of Milestone applied for:

Milestone No. for which Rescheduling is Applied	Original/ Rescheduled Date	Details and Period of Hindrances	Comments of EIC	Proposed Rescheduled Date
(A) 1st Milestone				
(B) 2nd Milestone				
_____				
_____				

11. 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 (for causes under clause SCC 7).

Submitted to Engineer-In-Charge

Signature of Contractor
Dated

APPENDIX – XVI
(Refer Clause 7)

FORM OF APPLICATION BY THE CONTRACTOR FOR SEEKING EXTENSION OF TIME

1. Name of Contractor:
2. Name of work as given in the Contract:
3. Contract no.:
4. Contract Value:
5. Date of commencement of work as per Contract:
6. Period allowed for completion of work as per Contract:
7. Date of completion stipulated in Contract:
8. Period for which extension of time if has been given by the Company previously:

	Letter no. and date	Extension granted
Months	Days	
(a) 1st extension:		
(b) 2nd extension:		
(c) 3rd extension:		
(d) 4th extension:		
(e) Total extension previously given:		

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Period for which extension if applied for
11. 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 (for causes under clause SCC 7)
12. Extension of Time required for extra work
13. Details of Extra work and the amount involved:

    a. Total value of extra work

    b. Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
14. Total extension of time required for Sl. No. 11 & 12 above.

Submitted to the Accepting Authority with copy to the Engineer-In-Charge

Signature of Contractor
Dated

ANNEXURE-XVII

INDENTURE FOR SECURED ADVANCES

(For use in cases in which the Contract is for finished work and the Contractor has entered into an agreement for the execution of certain specified quantity of work in a given time)

THIS INDENTURE made the _____ day of _____ 20___ BETWEEN _____ (hereinafter called the Contractor which expression shall where the context so admits or implies be deemed to include his executors administrators and assigns) of the one part and Oil India Limited (OIL) (hereinafter called the Company which expression shall where the context so admits or implies be deemed to include his successors in office and assigns) of the other part.

WHEREAS by an Contract dated _____ (hereinafter called the said Contract) the Contractor has agreed AND WHEREAS the Contractor has applied to the Company that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said Contract for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS the Company has agreed to advance to the Contractor the sum of Rupees _____ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account Bill for the said works signed by the Contractor on _____ and the Company has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works. Now THIS INDENTURE WITNESSED that in pursuance of the said Contract and in consideration of the sum of Rupees _____ on or before the execution of these presents paid to the Contractor by the Company (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the Contractor doth hereby covenant and agree with the Company and declare as follows: -

(1) That the said sum of Rupees so advanced by the Company to the Contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the Contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.

(2) That the materials detailed in the said Account of Secured Advances which have been offered to and accepted by Company as security are absolutely the Contractor's own property and free from encumbrances of any kind and the Contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnifies the Company against all claims to any materials in respect of which an advance has been made to him as aforesaid.

(3) That the materials detailed in the said Account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made 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 directions of the Engineer-In-Charge and in the term of the said Contract.

(4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own

responsibility and shall at all times be open to inspection by the Engineer-In-Charge or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Engineer-In-Charge.

(5) That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Engineer-In-Charge or an officer authorised by him on that behalf.

(6) That the advances shall be repayable in full when or before the Contractor receives payment from the Company of the price payable to him for the said works under the terms and provisions of the said Contract. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Company will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.

(7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said Contract or of these presents the total amount of the advance or advances that may still be owing to the Company shall immediately on the happening of such default be repayable by the Contractor to the Company together with interest thereon at **twelve per cent per annum** from the date or respective dates of such advance or advances to the date of repayment and with all costs charges, damages and expenses incurred by the Company in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Company to repay and pay the same respectively to him accordingly.

(8) That the Contractor hereby charges all the said materials with the repayment to the Company of the said sum of Rupees _____ and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said Contract and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith the Company may at any time thereafter adopt all or any of the following courses as he may deem best:

(a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said Contract debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as if he had carried it out in accordance with the said Contract and at the rates thereby provided. If the balance is against the Contractor he is to pay same to the Company on demand.

(b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the Company under these presents and pay over the surplus (if any) to the Contractor.

(c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said Contract.

(9) That except in the event of such default on the part of the Contractor as aforesaid interest on the said advance shall not be payable.

(10) That in the event of any conflict between the provisions of these presents and the said Contract the provisions 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 herein before expressly provided for the same shall be finally resolved as per provisions of GCC clause 29 of the Contract.

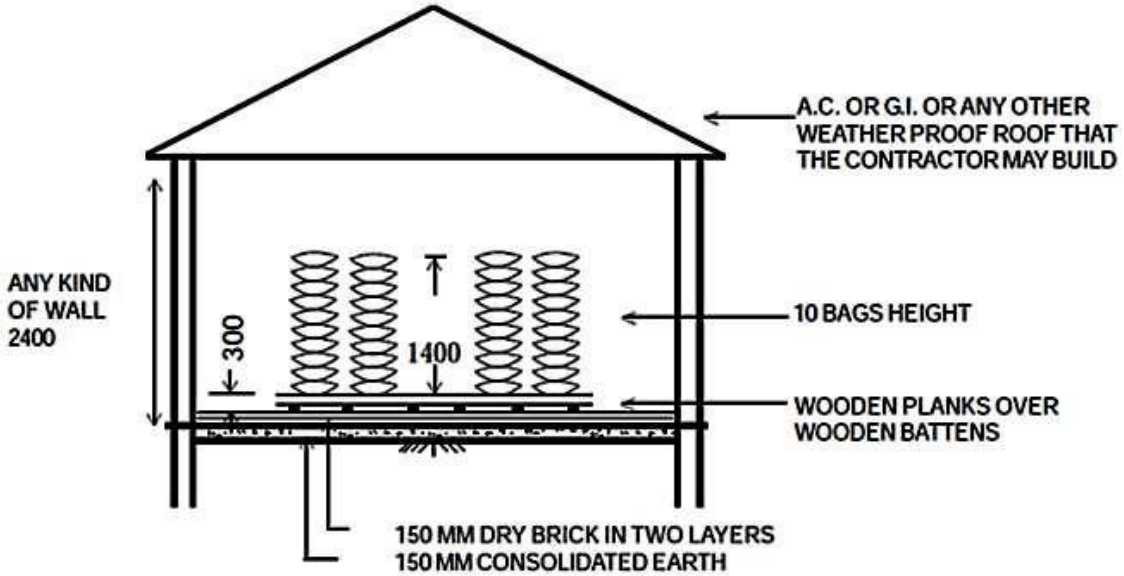
In witness whereof the said _____ and _____ have hereunto set their respective hands the day and year first above written.

Signed, sealed and delivered by _____
The said contractor in the presence of
Signature _____
Witness Name _____
Address _____

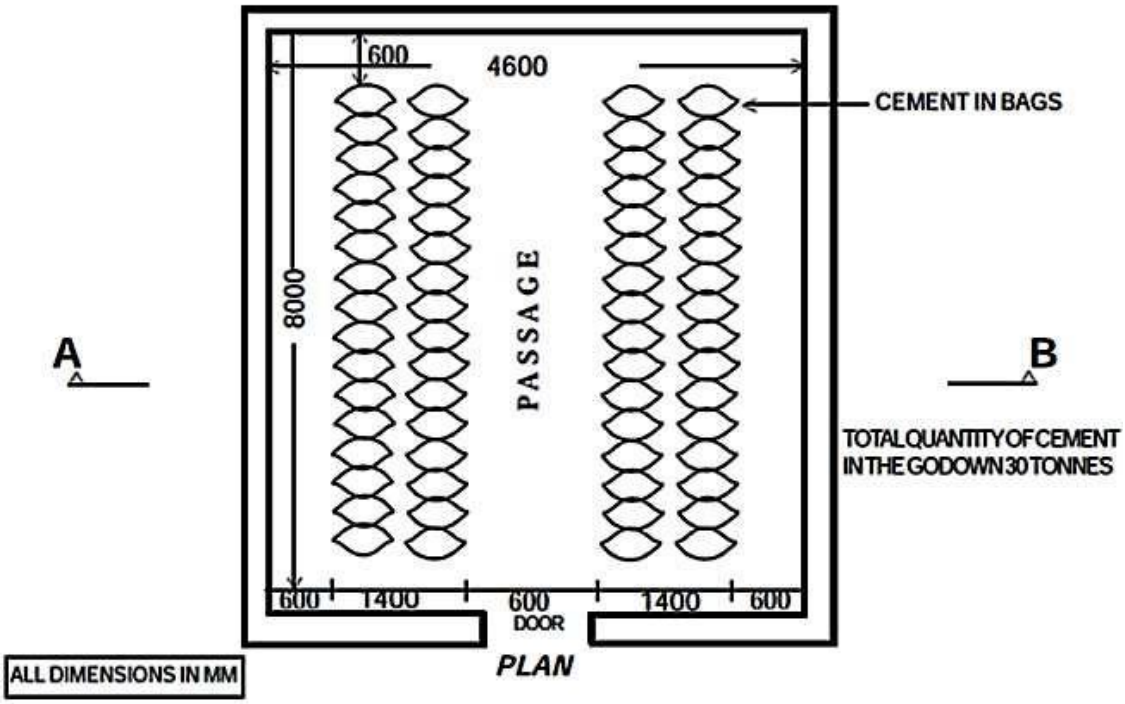
Signed by _____
For and on behalf of Company
in the presence of
Signature _____
Witness Name _____
Address _____

APPENDIX-XVIII

सीमेन्ट गोदाम का रेखाचित्र / SKETCH OF CEMENT GODOWN



SECTION AB



APPENDIX-XIX

CERTIFICATE OF HANDING OVER OF BUILDING

(To be prepared in quadruplicate with details relevant to Contractor's work done)

1. Name of the building with short description such as RCC/CGI Roof, number of toilets, bathrooms etc.

   i)

   ii)

   iii)

   iv)

2. Plinth area of each building

   i)

   ii)

   iii)

   iv)

3. Details of electrical fittings i.e. Main Switches, Nos. of fans, tubes & lights pendants etc in each building. (the make & type, size of fan, tubes etc shall also be given with guarantee cards, if any, duly signed by the C.A.) & line diagram of concealed wiring.

4. Details of water supply fittings such as taps, washbasins, closets etc in each building.

5. A line diagram of the layout of the water supply system, showing the position of sluice valve/Fire Hydrants and the type and size of pipes laid shall be given.

6. A line diagram of the sewerage system showing the material, size, invert levels etc. of sewer lines, manholes, septic tanks and the capacity and frequency of cleaning of septic tanks shall be given.

7. Details of guarantee/warrantee certificates of various equipments/machinery used.

8. As built drawings of work.

Additional sheets may be used for furnishing detailed information.

APPENDIX-XX

GUARANTEE BONDS[12]
TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF INTERNAL ELECTRICAL INSTALLATIONS
(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract recited structurally stable workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after expiry of maintenance period prescribed in the Contract for the minimum life of 02 (Two) year to be reckoned from the date after the expiry of maintenance period (defect liability) prescribed in the Contract. The decision of the Engineer-In-Charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-In-Charge calling upon him to rectify, the defects falling which the work shall be got done by the Oil India Limited by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach thereafter, then the guarantor will indemnify the principal and his successors against all loss, damage, 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 the supplementary agreement. As to the amount of loss and/or damages and or cost incurred by the Oil India Limited, decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

[12] Guarantee Bond to be executed by the Main / Associate Contractor.

APPENDIX-XXI

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION OF WORK IN RESPECT OF STP/ETP/WTP

(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20_____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract recited structurally stable workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after expiry of maintenance period prescribed in the contract for the minimum life of 02 (Two) year to be reckoned from the date after the expiry of maintenance period (defect liability) prescribed in the Contract. The decision of the Engineer-In-Charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-In-Charge calling upon him to rectify, the defects falling which the work shall be got done by the Oil India Limited by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach thereafter, then the guarantor will indemnify the principal and his successors against all loss, damage, 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 the supplementary agreement. As to the amount of loss and/or damages and or cost incurred by the Oil India Limited, decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXII

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION OF WORK IN RESPECT OF SECTION DOORS / WINDOWS / VENTILATORS AND ALUMINIUM WORK

(On Rs. 100/- stamp paper)

This Agreement made this _____ day _____ of 20_____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract recited structurally stable, leak proof and sound material, workmanship, anodizing, colouring, sealing etc.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing /pre-painting/Powder coating/ colouring and finishing for 5 (Five) years from the date of completion of work.

NOW THE GUARANTOR hereby guarantee that work executed by him will be free from any leakage, seepage, cracks in pipes and guaranteed against faulty material and workmanship, defective galvanising, powder coating / colouring etc. for five years to be reckoned from the date after the expiry of maintenance period (defect liability) prescribed in the contract. The decision of the Engineer-In-Charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect to satisfaction of Engineer-In-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-In-Charge calling upon him to rectify the defects failing which the work shall be got done by the Oil India Limited by some other contractor at the guarantor's cost and risk. The decision of the Engineer- In-Charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all defects or commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, 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 Oil India Limited, the decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXIII

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR
TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS
(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20_____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract recited structurally stable leak proof, workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc after expiry of maintenance period prescribed in the Contract for the minimum life of 05 (Five) year to be reckoned from the date after the expiry of maintenance period (defect liability) prescribed in the Contract. The decision of the Engineer-In-Charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-In-Charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects commits breach thereunder, then the guarantor will indemnify the principal and his successor against all loss, 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 Oil India Limited, the decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXIV

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION OF WORK IN RESPECT OF STONE WORK / GRANITE WORK / TILE WORK.

(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20_____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract structurally stable, workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing and materials.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after the expiry of maintenance period prescribed in the contract for the minimum life of five years to be reckoned from the date after the expiry of maintenance period (defect Liability) prescribed in the Contract. The decision of the Engineer-In-Charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-In-Charge calling upon him to rectify the defects failing which the work shall be got done by the Oil India Limited by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-In-Charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, 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 Oil India Limited, the decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXV

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

(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20___ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL 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 / leak proof for **ten years** from the date of completion of work.

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 of completion of work.

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

a) Misuse of roof shall mean by operation, which will damage roofing treatment, like chopping of firewood and things of the same nature, which might cause damage to the roof.
b) Alteration shall mean construction of an additional storey or a part of roof or construction adjoining to existing roof, where by roofing treatment is removed in parts.
c) 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 defects being found, render the building water proof at his own cost, to the satisfaction of the Engineer-In-Charge and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-In-Charge calling upon him to rectify the defects, failing which the work shall be got done by Oil India Limited through some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the necessary rectification or commits breach there under then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost expense or otherwise which may be incurred by him by reasons of any default on the part of GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Oil India Limited, the decision of the Engineer-In-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXVI

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION OF WORK IN RESPECT OF ANTITERMITE TREATMENT WORKS

(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the Buildings and structures in the said contract rendered completely 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 reckoned from the date after the maintenance period (defect liability) 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 members and other materials like furniture, books etc 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 Oil India Limited and shall commence the works of such rectification within seven days from the date of issuing notice from the Oil India Limited calling upon him to rectify the defects failing which the work shall be got done by Oil India Limited through some other Contractor at the Guarantor's cost and risk and in the later case the decision of Oil India Limited 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 breach thereafter, then the guarantor will indemnify the company and his successors against all loss, damage, 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 supplementary agreement. As to the amount of loss and/or damages and or cost incurred by the Oil India Limited the decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

APPENDIX-XXVII

GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WOODEN FLOORS, TRACK & OTHER WOOD WORKS

(On Rs. 100/- stamp paper)

This Agreement made this _____ day of _____ 20_____ Between _____ (hereafter called the Guarantor on the one part) and Oil India Limited (OIL) 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 OIL of the other part whereby the Contractor inter alia, undertook to render the work in the said contract recited structurally stable, termite proof, water & fire resistant, leak proof and sound material & workmanship, fixing & finishing.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable, termite proof, water & fire resistant and guaranteed against faulty material and workmanship, defective fixing and finishing for 10 (Ten) years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, termite proof, water & fire resistant, leak proof and guaranteed against faulty material and workmanship, defective fixing and finishing for ten years to be reckoned from the date after the expiry of maintenance period (defect liability) prescribed in the contract. The decision of the Engineer-In-Charge with regard to nature and cause of defects shall be final.

During this period of guarantee, the guarantor shall make good all defects 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 the notice from the Engineer-In-Charge calling upon him to rectify the defects failing which the work shall be got done by Oil India Limited by some other contractor at the Guarantor's risk and cost. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects or commits breach thereunder, then the guarantor will indemnify the principal and his successor against all loss, 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 Oil India Limited, the decision of the Engineer-In-Charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligator _____ and _____ by _____ for and on behalf of the Oil India Limited on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:
1 _____
2 _____

SIGNED FOR AND ON BEHALF OF Oil India Limited in the presence of:
1 _____
2 _____

(END OF SECTION–V)

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor"

Preamble:

The Principal intends to award, under laid down organizational procedures, contract/s for **Construction of Training Center cum Holiday Home at Britonia, Porvorim, Goa including all amenities, other ancillary services complete in all respect**. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section: 1 -Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

3. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section: 2 -Commitments of the Bidder/Contractor

(1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

1. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit

which h e/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, Subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

4. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

5. Bidders to disclose any transgressions with any other company that may impinge on the anti-corruption principle.

6. The Bidder (s)/ Contractor (s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder (s)/ Contractor (s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further, all the payments made to the Indian agent/ representative have to be in India Rupees only.

7. Bidders not to pass any information provided by Principal as part of business relationship to others and not to commit any offence under PC / IPC Act;

(2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

Section 3 -Disqualification from tender process and exclusion from future Contracts

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any

hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

5. Integrity Pact, in respect of a particular contract, shall be operative from the date IP is signed by both the parties till the completion of the contract or as mentioned in Section 9- Pact Duration whichever is later. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings. Any issue relating to execution of contract, if specifically raised before the IEMs shall be looked into by IEMs.

Section 4 -Compensation for Damages

(1) If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.

(3) The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 -Previous transgression

(1) The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section: 6 -Equal treatment of all Bidders/Contractor/Subcontractors

(1) The Principal will enter into Pacts on identical terms with all bidders and contractors.

(2) The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section: 7 -Criminal charges against violating Bidders/Contractors/ Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section: 8 -External Independent Monitor/Monitors

(1) The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.

(3) The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.

(4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.

(6) The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

(7) If the Monitor has reported to the Chairperson of the Board a Substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

(8) The word 'Monitor' would include both singular and plural.

(9) In case of any complaints referred under IP Program, the role of IEMs is advisory and would not be legally binding and it is restricted to resolving the issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidder.

Section:9 -Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section:10 -Other provisions

(1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the Contractor / Bidder is a Joint venture or a partnership or a consortium, this agreement must be signed by all partners or consortium members. In case of sub-contracting, the Principal contractor shall take the responsibility of the adoption of IP by the sub-contractor and all sub-contractors shall also sign the IP.

(4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

(5) Issues like warranty / guarantee, etc. shall be outside the purview of IEMs.

.....	**.....**
For the Principal	**For the Bidder/Contractor**
	Witness 1: .....
	Witness 2: .....

Place.
Date .

(END OF SECTION–VI)

COMMERCIAL CHECK LIST

THE CHECK LIST MUST BE COMPLETED AND RETURNED WITH YOUR OFFER. PLEASE ENSURE THAT ALL THESE POINTS ARE COVERED IN YOUR OFFER. THESE WILL ENSURE THAT YOUR OFFER IS PROPERLY EVALUATED. PLEASE SELECT "Yes" OR "No" (WHEREVER APPLICABLE) TO THE FOLLOWING QUESTIONS, IN THE RIGHT HAND COLUMN.

Sl. No.	REQUIREMENT	COMPLIANCE
1.0	Whether bid submitted under Single Stage Two Bid System?	Yes/ No
2.0	Whether submitted Declaration for Bid Security?	Yes/ No
3.0	Whether quoted offer validity of 120 (One Hundred Twenty) days from the original date of Technical bid opening?	Yes/ No
4.0	Whether all BRC/BEC clauses accepted?	Yes/ No
4.1	Whether documentary evidence submitted in support of requirements as per BEC/BRC?	Yes/ No
4.2	Whether Undertaking submitted as per **Proforma-I** towards submission of authentic information/documents along with the Un-priced Techno-Commercial Bid?	Yes/ No
5.0	Whether prices submitted as per Bidding format?	Yes/ No
5.1	Whether Bidding format uploaded under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal?	Yes/ No
6.1	Whether confirmed to submit PBG as asked for in NIT?	Yes/ No
6.2	Whether agreed to submit Performance Security / Security Deposit within 2 weeks of the issue of Letter of Award?	Yes/ No
7.0	Whether confirmed acceptance of tender Payment Terms?	Yes/ No
8.1	Whether Integrity Pact accepted?	Yes/ No
8.2	Whether Integrity Pact uploaded along with Un-priced Techno-Commercial Bid?	Yes/ No
9.0	Whether quoted as per NIT (without any deviations)?	Yes/ No
9.1	Whether deviation separately highlighted?	Yes/ No/ Not Applicable
10.0	Whether bidder has unique GeM Seller ID? If **YES**, bidder to provide GeM Seller ID in E-remittance format (**Proforma-XII**) If **NO**, Bidder to provide GeM Seller ID in case considered for award of contract before issuance of LOA	Yes/ No

Offer ref …… Dated ……

(END OF SECTION–VII)

GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) MEASURES

1. It will be solely the Contractor's responsibility to fulfill all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. Ensure that all sub-contractors hired by him comply with the same requirement as the contractor himself and shall be liable for ensuring compliance all HSE laws by the sub or sub-sub contractors.

2. Every person deployed by the contractor in a mine must wear safety gadgets to be provided by the contractor. The Contractor shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and company PPE schedule. Safety appliances like protective footwear, Safety Helmet and Full Body harness has to be DGMS approved. Necessary supportive document shall have to be submitted as proof. If the Contractor fails to provide the safety items as mentioned above to the working personnel, the Contractor may apply to the Company (OIL) for providing the same. OIL will provide the safety items, if available. But in turn, OIL will recover the actual cost of the items by deducting from Contractor's Bill. However, it will be the Contractor's sole responsibility to ensure that the persons engaged by him in the mines use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.

3. The Contractor shall prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state the risk arising to men, machineries & material from the mining operation / operations to be done by the contractor and how it is to be managed.

4. The contractor shall provide a copy of the SOP to the person designated by the mine owner who shall be supervising the contractor's work.

5. Keep an up to date SOP and provide a copy of changes to a person designated by the Mine Owner /Agent /Manager.

6. Contractor has to ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a safe manner. For work of a specified scope/nature, he should develop and provide to the mine owner a site specific code of practice in line.

7. All persons deployed by the contractor for working in a mine must undergo Mines Vocational Training, initial medical examination, PME. They should be issued cards stating the name of the contractor and the work and its validity period, indicating status of MVT, IME & PME.

8. The contractor shall submit to DGMS returns indicating - Name of his firm, Registration number, Name and address of person heading the firm, Nature of work, type of deployment of work persons, Number of work persons deployed, how many work persons hold VT Certificate, how many work persons undergone IME and type of medical coverage given to the work persons.

9. The return shall be submitted quarterly (by 10th of April, July, October & January) for contracts of more than one year. However, for contracts of less than one year, returns shall be submitted monthly.

10. It will be entirely the responsibility of the Contractor/his Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him. The crew members will not refuse to

follow any instruction given by company's Installation Manager / Safety Officer / Engineer / Official / Supervisor/Junior Engineer for safe operation.

11. Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.

12. Any compensation arising due to accident of the Contractor's personnel while carrying out the job, will be payable by the contractor.

13. The contractor shall have to report all incidents including near miss to Installation Manager / departmental representative of the concerned department of OIL.

14. The contractor has to keep a register of the persons employed by him/her. The contractor's supervisor shall take and maintain attendance of his men every day for the work, punctually.

15. If the company arranges any safety class / training for the working personnel at site (company employee, contractor worker, etc) the contractor will not have any objection to any such training.

16. The health check up of contractor's personnel is to be done by the contractor in authorized Health Centers as per OIL's requirement & proof of such test(s) is to be submitted to OIL. The frequency of periodic medical examinations should be every five years for the employees below 45 years of age and every three years for employees of 45 years of age and above.

17. To arrange daily tool box meeting and regular site safety meetings and maintain records.

18. Records of daily attendance, accident report etc. are to be maintained in Form B, E, J (as per Mines Rules 1955) by the contractor.

19. A contractor employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.

20. A contractor employee must, while at work, cooperate with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

21. Contractor's arrangements for health and safety management shall be consistent with those for the mine owner.

22. In case Contractor is found non-compliant of HSE laws as required company will have the right for directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor will be penalized prevailing relevant Acts/Rules/Regulations.

23. When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company will have the right to direct the contractor to cease work until the non-compliance is corrected.

24. The contractor should prevent the frequent change of his contractual employees as far as practicable.

25. The contractor should frame a mutually agreed bridging document between OIL & the contractor with roles and responsibilities clearly defined.

26. For any HSE matters not specified in the contract document, the contractor will abide the relevant and prevailing Acts/rules/regulations/ pertaining to Health, Safety and Environment.

(END OF SECTION–VIII)

BIDDING FORMAT (PRICE BID)

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
SUB HEAD-I :- CIVIL / INTERIOR WORKS					
10	Carriage of excavated rock by mechanical transport including loading, unloading and stacking (**upto 5 KM**)	Cubic Metre	6,028.00		0.00
20	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **All kinds of soil**	Cubic Metre	2,166.00		0.00
30	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **Ordinary rock**	Cubic Metre	6,028.00		0.00
40	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cubic Metre	2,166.00		0.00
50	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth,sides of foundation etc. complete.	Cubic Metre	2,603.00		0.00
60	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials. **All kinds of soil. (From 1.5 to 3 m depth)**	Cubic Metre	3,261.00		0.00
70	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials. **All kinds of soil. (From 3.0 to 4.5 m depth)**	Cubic Metre	3,261.00		0.00
80	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cubic Metre	293.00		0.00
90	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. **Beyond 30 cm girth upto and including 60 cm girth**	Each	7.00		0.00
100	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. **Beyond 60 cm girth upto and including 120 cm girth**	Each	11.00		0.00
110	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. **Beyond 120 cm girth upto and including 240 cm girth**	Each	8.00		0.00
120	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. **Above 240 cm girth**	Each	2.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
130	Supplying chemical emulsion in sealed containers including delivery as specified. **Chlorpyriphos/ Lindane emulsifiable concentrate of 20%**	Litre	10.29		0.00
140	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : **Along external wall where the apron is not provided using chemical emulsion @ 5 litres / sqm of the vertical surface of the substructure to a depth of 300mm including excavation channel along the wall & rodding etc. complete: With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration**	Meter	137.16		0.00
150	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)**	Cubic Metre	261.36		0.00
160	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)**	Cubic Metre	20.04		0.00
170	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) including manufactured sand derived from Recycled Concrete Aggregate (RCA) upto 25% : 4 graded stone aggregate 20mm nominal size (Recycled Concrete Aggregate (RCA) upto 25%))	Square Metre	36.83		0.00
180	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Per 50 Kg cement	11.51		0.00
190	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with apiece of cloth lightly soaked in kerosene oil.	Square Metre	36.83		0.00
200	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	Square Metre	380.09		0.00
210	Centering and shuttering including strutting, propping etc. and removal of form for : **Foundations, footings, bases of columns, etc. for mass concrete**	Square Metre	210.82		0.00
220	Centering and shuttering including strutting, propping etc. and removal of form for : **Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.**	Square Metre	2,701.71		0.00
230	Centering and shuttering including strutting, propping etc. and removal of form for : **Suspended floors, roofs, landings, balconies and access platform upto 4 mtrs.**	Square Metre	2,729.33		0.00
240	Centering and shuttering including strutting, propping etc. and removal of form for : **Shelves (Cast in situ)**	Square Metre	545.87		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
250	Centering and shuttering including strutting, propping etc. and removal of form for : **Lintels, beams, plinth beams, girders, bressumers and cantilevers upto 4 mtrs.**	Square Metre	1,882.13		0.00
260	Centering and shuttering including strutting, propping etc. and removal of form for : **Columns, Pillars, Piers, Abutments, Posts and Struts**	Square Metre	2,601.18		0.00
270	Centering and shuttering including strutting, propping etc. and removal of form for : **Stairs, (excluding landings) except spiral-staircases**	Square Metre	202.50		0.00
280	Centering and shuttering including strutting, propping etc. and removal of form for : **Edges of slabs and breaks in floors and walls. Under 20 cm wide**	Meter	1,230.46		0.00
290	Centering and shuttering including strutting, propping etc. and removal of form for : **Weather shade, chajjas, corbels etc. Including edges.**	Square Metre	272.93		0.00
300	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. **Thermo-Mechanically Treated bars of grade Fe-500D or more.**	Kilogram	2,09,450.00		0.00
310	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. **Thermo-Mechanically Treated bars of grade Fe-500D or more.**	Kilogram	1,21,350.00		0.00
320	Applying two coats of single component polymer ANTI-CORROSIVE coating over reinforcement complete as per instruction of Engineer-Incharge and manufacturer's specifications	Square Metre	10,468.35		0.00
330	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Meter	1,230.46		0.00
340	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works upto plinth level. Concrete of M30 grade with minimum cement content of 350 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	1,954.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
350	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works upto plinth level. Concrete of M35 grade with minimum cement content of 370 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	55.00		0.00
360	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works above plinth level upto floor V level. Concrete of M30 grade with minimum cement content of 350 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	705.40		0.00

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
370	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works above plinth level upto floor V level. Concrete of M35 grade with minimum cement content of 370 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	195.00		0.00
380	Supplying and applying pre tested and approved water based concrete curing compound to concrete/ masonry surface, all as per manufacturer's specification and direction of Engineer-in-charge. **Non pigmented wet curing compound**	Square Metre	2,729.33		0.00
390	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical localtion in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self- centering arrangement that freely rotates / moves in all directions. The Self - centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in- Charge. (Material shall confirm to ASTM 6063). **Floor Joint of 100 mm gap**	Meter	78.16		0.00

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
400	Providing and fixing of expansion joint system related with wall joint (internal/external) location as per drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminum base members, self aligning / centering arrangement and support plates as per ASTM B221-02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063). **Wall Joint of 100 mm gap**	Meter	57.60		0.00
410	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members with, self aligning and self centering arragement support plates asper ASTM B221-02. The system shall be such that it provides watertight roof to roof/roof to corner joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal aluminum base member designed to accommodate various project conditions and roof treatments. The cover plate shall be designed of width and thickness required to satisfy movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self-centering arrangement that freely rotates / moves in all directions. The Self centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The Joint System shall resists damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in the Joint System to have water tight joint is mandatory requirement. (Material shall confirm to ASTM 6063). **Roof Joint of 100 mm gap**	Meter	19.54		0.00
420	Providing and fixing tie bolt with water stopper and plastic pipe of 20 mm dia for wall shuttering and removal of tie bolt after casting of RCC while the water stopper remains embedded in the RCC wall. Complete as per direction of Engineer-in-charge: **16 mm tie bolt for wall 375 mm long**	Set	1,351.00		0.00
430	Providing and fixing tie bolt with water stopper and plastic pipe of 20 mm dia for wall shuttering and removal of tie bolt after casting of RCC while the water stopper remains embedded in the RCC wall. Complete as per direction of Engineer-in-charge: **16 mm tie bolt for wall 500 mm long**	Set	1,351.00		0.00
440	Extra for using Sulphate resistant cement in place of Ordinary Portland Cement	Per Bag	20,465.80		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
450	**PRECAST BOLLARDS** Precasting and placing in position Bollards 695 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources), including necessary excavation for the same at specified spacing.	Each	344.00		0.00
460	Providing and fixing up to floor five level precast cement concrete solid block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete : **1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).**	Cubic Metre	519.35		0.00
470	Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	Cubic Metre	408.34		0.00
480	Providing and fixing 40 mm thick exposed face fine dressed with rough backing Laterite stone work for wall lining upto 10m height, backing filled with a grout of average 12 mm thick cement mortar 1:3 (1cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately) :	Square Metre	1,167.90		0.00
490	Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Kilogram	356.86		0.00
500	Providing and fixing cramps of required size & shape in RCC/ CC / Brick masonry backing with cement mortar 1:2 (1 cement :2 coarse sand), including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately). **Gunmetal cramps**	Kilogram	2,429.23		0.00
510	Providing and fixing expansion hold fasteners on C.C. /R.C.C./Brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete. **Wedge expansion type. Fastener with threaded dia 10 mm**	Each	9,343.20		0.00
520	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases.	Each	4,671.60		0.00

Name of Bidder:					
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A	**B**	**C**	**D**	**E**	**F=D*E**
530	Applying breathable, non-reactive, antifungal, and water repellant Silane/Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).	Square Metre	2,335.80		0.00
540	Providing and fixing 18 mm 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, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. **Granite stone slab colour black, Cherry/Ruby red. Area of slab upto 0.50 sqm**	Square Metre	53.67		0.00
550	Providing and fixing 18 mm 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, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. **Granite stone slab colour black, Cherry/Ruby red. Area of Slab over 0.50 sqm**	Square Metre	97.32		0.00
560	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. **Granite work.**	Meter	800.72		0.00
570	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	Meter	67.20		0.00
580	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Each	50.00		0.00
590	Providing and fixing stone slab with 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. **Granite Stone of approved shade**	Square Metre	3.00		0.00

Name of Bidder:					
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A	**B**	**C**	**D**	**E**	**F=D*E**
600	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). **Second class teak wood**	Cubic Metre	5.43		0.00
610	Mealamine polishing on door windows by preparing the surface applying putty base course. prepare the surface smooth by sand papering and then applying mealamine polish with air compressor. Two or more coats on new works including a coat of wood filler.	Square Metre	292.13		0.00
620	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Each	20.00		0.00
630	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete : **2nd class teak wood. 50 x 20 mm**	Meter	2,564.40		0.00
640	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: **35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws**	Square Metre	195.30		0.00
650	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Square Metre	195.30		0.00
660	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured): **Rectangular or square.**	Square Metre	8.40		0.00
670	Fixing glass panes, with wooden fillets wherever necessary: **Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)**	Square Metre	0.27		0.00
680	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality. **1.0 mm thick**	Square Metre	390.60		0.00
690	Providing and fixing 6mm thick both sides Pre-laminated cement bonded wood particle board as per IS : 15786:2008 of approved brand and shade with suitable full threaded steel screws etc. on the backing of racks, drawer, cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer-in-charge.	Square Metre	254.05		0.00
700	Providing and fixing cupboard shutter with 19mm thick one side decorative and other side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand including 2mm thick PVC edge banding tape with hot glue by edge bending machine etc. with auto closing spring loaded hinges (hydraulic type) etc. complete as per direction of Engineer-in-charge.(Payment of providing and fixing auto closing hinges shall be paid separately)	Square Metre	615.40		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
710	Providing and fixing 19mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand boxes,shelves,racks,almirah,cupboard and drawer etc. including necessary nails,screws etc. complete as per direction of Engineer-incharge.	Square Metre	330.88		0.00
720	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge. **200 mm**	Each	325.00		0.00
730	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	Each	440.00		0.00
740	Providing and fixing stainless steel soft closing heavy type telescopic drawer channels of approved make 500 mm long with screws etc. complete as per directions of Engineer- in-charge.	One Set	185.00		0.00
750	Providing and fixing 2mm thick 16 to 19mm wide PVC edge binding tape of approved quality for cupboard/wardrobe shutters including necessary synthetic resin hot pressed to edges on binding machine etc. complete as per directions of Engineer- in-charge.	Meter	1,449.00		0.00
760	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-incharge (Door handle, lock and stopper etc.to be paid separately).	Square Metre	19.50		0.00
770	Providing and fixing 12 mm thick frameless toughened glass partitions of approved brand and manufacturer with all necessary aluminium patch fitting hardware like corner, side, top & bottom and corner connector with all fixing arrangements and making necessary holes etc. for fixing required fittings complete including providing and fixing top & bottom with aluminum channel etc. or as specified in the drawing all complete as per direction of Engineer-in-charge.	Square Metre	169.12		0.00
780	Providing and fixing approved brand and manufacture SS 304 grade D type 1200mm Pull Handle with 32mm dia fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Pair	2.00		0.00
790	Providing and fixing approved brand and manufacture SS 304 grade D type 300mm Pull Handle with 25mm dia fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Pair	43.00		0.00
800	Providing and fixing approved brand and manufacture SS 304 grade Glass to Glass Lock Round type with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	6.00		0.00
810	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	103.00		0.00

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820	Providing and fixing approved brand and manufacture SS 304 Lever Handle D-type fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Pair	105.00		0.00
830	Providing and fixing approved brand and manufacture SS 304 grade SS 304 grade Mortice lock with key cylinder fixed fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	67.00		0.00
840	Providing and fixing approved brand and manufacture SS 304 grade Tower bolt 250mm long with 10mm dia fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	8.00		0.00
850	Providing and fixing approved brand and manufacture SS 304 grade Tower bolt 150mm long with 10mm dia fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	202.00		0.00
860	Providing and fixing approved brand and manufacture SS 304 grade wall mounted door buffer fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	105.00		0.00
870	Providing and fixing approved brand and manufacture SS 304 grade Door Stopper - door mounted hanging type fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	Each	105.00		0.00
880	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. **With stainless steel cover plate minimum 1.25 mm thickness**	Each	4.00		0.00
890	**Toilet Cubical** Providing and fixing Toilet Cubicle (of following standard dimension which includes 600 mm door size width) made of heat, bacteria, water, chemical, scratch, impact and anti bacterial resistant 12 mm thick solid compact laminate panels Finish of the compact laminate should be raw silk which include doors, pilasters and intermediate panels finished with approved texture/shade as per the detail drawing and as per IS 2046 (Indian Standard) and as per fire retardant BS-476/97 standard. This also includes providing and fixing in position necessary hardware made out of Stainless Steel (Grade 316) as per manufacturer's specifications and EIC instructions like (1) Door Knob, (2) Gravity Hinges, (3) Thumb turn lockset indicators, (4) Coat hooks, (5) U- Channels, (6) SS-Shoe Box Plate, (7) MS-Base Plate, (8) Rubber noise deafening tape, (9) Screws and wall Plugs.	Square Metre	50.65		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
900	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet (Zinc coating not less than 120gm/ m^2) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m^3 . The frame will have a provision of G.I. Anchor fastners 14 nos (5 each on vertical style & 4 on horizontal style of size M10 x 80) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	Meter	28.50		0.00
910	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m^2) duly filled mineral wool insulation having density min 96 kg/ m^3 and fixing with necessary stainless steel all bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for seperately).	Square Metre	15.75		0.00
920	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m^2) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/ powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-in-charge with glass of required thickness having 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	Square Metre	1.01		0.00
930	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on back side of the Panic Latch of reputed brand and manufacture to be approved by the Engineer- in- charge, all complete.	Each	5.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
940	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kilogram	500.00		0.00
950	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. **Hot finished welded type tubes**	Kilogram	46,870.81		0.00
960	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. **In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works**	Kilogram	405.00		0.00
970	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. **80x1.25 mm M.S. laths with 1.25 mm thick top cover**	Square Metre	20.76		0.00
980	Providing and fixing ball bearing for rolling shutters.	Each	4.00		0.00
990	Extra for providing mechanical device chain and crank operation for operating rolling shutters. **Exceeding 10.00 sqm and upto 16.80 sqm in the area.**	Square Metre	20.76		0.00
1000	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in- charge, (area of grill to be measured).	Square Metre	20.76		0.00
1010	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kilogram	2,344.28		0.00
	Supply and fixing of STRAIGHT PROFILED KALZIP or equivalent “SELF SUPPORTED” SECRET FIX STANDING ROOFING SYSTEM IN 0.9mm THICK AA 3004 ALUMINIUM ALLOY. The general roof-construction shall comprise of: Top layer – Kalzip 65-50/400-429 profiled sheet manufactured or equivalent from aluminium self supported standing seam roof system manufactured from aluminium alloy AA 3004 (AlMn1Mg1) as specified in BS EN 1396: 2007 minimum material thickness of 0.9 mm and Fluorocarbon PVDF/Stucco finish on the exposed surface.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
1020	The material properties shall be as follows: Ultimate tensile strength: minimum 200 N/mm2, 0.2% Proof Stress: min 185 N/mm2, Modulus of elasticity: 70,000 N/mm2. Including Accessories, aluminium ST clips and Fasteners. Sheets are to be laid to meet the requirements of the buildinggeometry and fixed on Aluminum clips. Clip to befixed to the top hat/purlins with SS 304 screws only. Under Deck Insulation Liner – Kalzip 35/200 Bare or equivalent Galvalume steel liner, 0.5 mm tct, 35 mm deep ribs spanning up to 1500mm centres (multiple spans) Vapour Control layer - A single layer of double sided aluminium foil vapour barrier. Insulation - Rockwool insulation of 100mm thickness minimum 48kg/m3 density with thermal conductivity of min K=0.04 W/mk at 25 degree Celsius. Fire classification with test procedures to BS 476: Parts 6 & 7. Flashings manufactured from aluminium alloy AA 3004 (AlMn1Mg1) as specified in BS EN 1396: 2007 minimum material thickness of 0.9 mm and Fluorocarbon PVDF/Stucco finish on the exposed surface. The roofing system shall be certified with a British Board of Agreement Certificate No 98/3481 plus the Institute of BautechnicZulassungbeschield N R -14.1 .181 All installation is to be carried out by approved trained roofing installer. The installation team shall be fully trained and approved by the manufacturer. The roof system manufacturer/supplier must have a registered office in India The approved roofing system manufacturer should have at least completed 150 projectsof aluminium standing seam roofing system in India with one project having area more than 150,000 m2. Aluminium gutter of 2mm thickness with aluminium gutter expansion joints @ 12m. all complete as per direction of Engineer-in-charge.	Square Metre	781.18		0.00
1030	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. **40mm thick with 20mm nominal size stone aggregate**	Square Metre	256.53		0.00
1040	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement. **18 mm thick.**	Square Metre	25.65		0.00
1050	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-incharge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	Cubic Metre	59.39		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1060	Kota stone slab 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 : 4 (1 cement : 4 coarse sand) : **25 mm thick.**	Square Metre	133.33		0.00
1070	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (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.	Square Metre	13.33		0.00
1080	Providing and laying Polished 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 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. **Polished Granite stone slab colour of Black, Cherry/Ruby Red or equivalent**	Square Metre	982.35		0.00
1090	Extra for pre finished nosing to treads of steps of Granite stone.	Meter	378.40		0.00
1100	Extra for Granite stone flooring in treads of steps and risers using single length up to 2.00 metre .	Square Metre	275.21		0.00
1110	Providing and fixing Granite stone slabs 18 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (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.	Square Metre	255.87		0.00
1120	Providing and laying Vitrified tiles in floor 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, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. **Glazed vitrified floor tiles polished finish of size. Size of Tile 600 x 1200 mm**	Square Metre	837.34		0.00
1130	Providing and laying Vitrified tiles in floor 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, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. **Glazed vitrified floor tiles polished finish of size. Skirting**	Square Metre	83.73		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1140	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Square Metre	1,416.05		0.00
1150	Providing and laying rectified Glazed Ceramic floor tiles of size 600x600mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/sqm including grouting the joints with white cement and matching pigments etc., complete.	Square Metre	257.47		0.00
1160	Providing and laying vitrified floor 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 make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. **Size of Tile 800x800 mm**	Square Metre	291.89		0.00
1170	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete. **Size of Tile 800x800 mm**	Square Metre	968.84		0.00
1180	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge. **Size of Tile 600x600 mm**	Square Metre	257.47		0.00
1190	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge. **Size of Tile 800x800 mm**	Square Metre	291.89		0.00
1200	Providing and fixing 18mm thick pre-polished granite stone strip of any colour and shade 100mm wide with one edge round moulded and polished, fixing the strip in wall above the top of dado, by cutting chase in wall and fixing the same with cement mortar 1:3 (1cement : 3 coarse sand), neatly finished and fixed such that the outer rounded edge projected 20mm beyond the surface of dado , all complete as per direction of engineer-in-charge.	Square Metre	783.04		0.00

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1210	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's 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 drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : **12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) :2011 (Board with BIS certification marks)**	Square Metre	856.76		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1220	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's 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 drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : **12.5 mm thick tapered edge gypsum moisture resistant board**	Square Metre	188.18		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1230	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge. **GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece.**	Square Metre	330.56		0.00
1240	Providing & fixing access panel is made out of Moist Bloc (Moisture Resistant) board for opening 600 x 600mm of thickness 12.5mm. All edges of the panel are reinforced with aluminium profiles and corners are guarded with stainless steel 304 grade clips to increase strength and prevent damages complete in all respect as specified in drawing and as directed by Engineer-in-charge.	Square Metre	25.70		0.00
1250	12 mm cement plaster of mix : **1:6 (1 cement: 6 fine sand)**	Square Metre	5,288.66		0.00
1260	15 mm cement plaster on the rough side of single or half brick wall of mix : **1:6 (1 cement: 6 fine sand)**	Square Metre	133.77		0.00
1270	6 mm cement plaster of mix : **1:3 (1 cement: 3 fine sand)**	Square Metre	3,327.20		0.00
1280	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	Square Metre	1,751.84		0.00
1290	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand): **Flush Band (10cm)**	Meter	3,582.35		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1300	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand): **Raised Band (10cm)**	Meter	3,582.35		0.00
1310	12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand): **Moulded Band (10cm)**	Meter	3,690.90		0.00
1320	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand): **Flush Band (10cm)**	Meter	3,582.35		0.00
1330	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand): **Raised Band (10cm)**	Meter	3,582.35		0.00
1340	18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand): **Moulded Band (10cm)**	Meter	3,690.90		0.00
1350	18 mm thick moulded cement mortar band in two coats under layer 12 mm thick with cement mortar 1:5 (1 cement : 5 coarse sand) top layer 6 mm thick with cement mortar 1:4 (1 cement : 4 fine sand).	Meter	10,855.60		0.00
1360	Colour washing such as green, blue or buff to give an even shade : **New work (two or more coats) with a base coat of white washing with lime**	Square Metre	515.92		0.00
1370	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	Square Metre	8,749.63		0.00
1380	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. **Two Coats**	Square Metre	8,749.63		0.00
1390	Finishing walls with textured exterior paint of required shade : **New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm**	Square Metre	1,751.84		0.00
1400	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : **Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture**	Square Metre	2,430.31		0.00
1410	Providing & fixing galvanized low carbon wire, anealed wire Chicken mesh formed by twisting two adjacent wires at least four times, forming a hexagonal shaped strong honeycomb mesh structure on joints of RCC & Brick work before plastering, of required gauge (not less than 21 gauge)and size with nails etc. complete as specified in drawing and as per the Direction of Engineer-in-charge.	Square Metre	813.36		0.00

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1420	Providing and fixing 40mm thick cladding comprising of Wooden framework using 25mx50mm sections at a maximum spacing of 600mm in any one direction (including adding members as required) covered with12mm thick BWP ply layered with 4mm thk. veneer (Basic Rate Rs.60/-sqft)on one side pasted and pressed with adhesive to give a uniform and smooth finish, including 4mm thk. S.S. strip framework on all sides of veneer panels with wooden member surround, top moldings / margins, melamine polish etc. to finish the thickness, as shown complete in drawing. All members / ply etc. shall be treated with anti-termite solution as per norms. No extra shall be paid for making of openings, door / window frames and for making provisions for electric conduits.	Square Metre	703.36		0.00
1430	Double Honeycomb Shades : Providing and Fixing of Window Blinds as per the approved sample consisting of Duette double honeycomb shades with easy rise operating system and Top Up Bottown down as a design option – as per following specifications FABRIC SPECIFICATIONS: • Original Non-woven honeycomb shades having soft fabric appearance and high energy-efficient fabric with high tear strength constructed out of Anti static, resilent, colour fast & Sanitized Treat 100% spun bonded non-woven polyester fiber & precision manufacture to form a hexagonally shaped duette pleat• Pleat dimension 3⁄4”Honeycomb within a Honeycomb” with 3 air pockets for maximum energy effeciency. • Shadings are duotone, with neutral tone facing the exterior and color facing the interior The HEADRAIL shall measure 49.68 wide and 36.66mm deep & thick 1.27mm extruded from 6063 T6 alu. alloy & shall be powder coated to a smooth finish with a thickness of 40 microns. FABRIC shall be constructed from spun-bonded polyester fibre, precision manufactured to form a hexagonally shaped, dual pleat, cellular construction. All cords & cord holes shall be fully concealed inside the fabric structure. As each of the hexagonal cells is formed individually, pleats operate independent of each other providing superior pleat retention & structure strength. INSTALLATION BRACKETS shall be of high tension spring steel suitable for overhead & wall mounting 30mm Duette Hartford mounting bracket. Head rail covered with Sydney Valance of height 80mm made up of Aluminium & L shape moving Rail includes " Click & Engage" method of dimension 50mmX55mm sticked with integerated moving rail magnets provide a streamlined look, reduce centre light gap, and promote easier operation. POLYESTER CORD shall be 0.9mm in diameter & of woven hollow core ENDCAP shall be molded acrylic color matched to the head & bottom rails. BOTTOM RAIL shall be a single channel section, measuring 30mm wide and 12.5mm deep & thickness 1-1.2mm extruded from 5005 H-16 alu. alloy & shall be powder coated with a smooth finish to a thickness of 15-25 microns. HOLD-DOWN BRACKET (optional) shall be molded in clear acrylic. It incorporates a pin for engagement with the bottom rail end-cap. It shall be suitable for sill, face or side facing. CORD EQUILISER shall be injection molded from impact modified acrylic with a high flexural modulus.	Square Metre	189.27		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1440	Roller Shades : Providing and fixing Roller Blinds as per the approved sample comprising of optima screen Fabric comprising of 22% polyester, 78% PVC, Fabric weight 460-480G weight per sqm, Thickness 0.67 mm, Yarn count 18-19/cm, having fire resistance standard – NFPA 701-89 small testing ISO-5659-2 .The tear resistance should be complying to ISO4674 & breaking resistance – ISO 5081. The control clutch drive unit engineered heavy duty chain drive pulley operating system consisting of gear clutch housing and locking plug containing minimum 6 ribs and inserted at minimum of 37mm into roller tube. It is self lubricating Exclusive clutch with safety pins for secure bracket installation and unlocking pin for quick manual removal. Universal clutch is most convenient for large windows down to the smallest windows. It shall be driven by a ball chain pulley with ball chain and can be positioned at Right hand or Left hand side of the shade. Clutch gear ration 1.75:1 for reduced operating force on larger blinds. Tube bearing plug idler Exclusive self lubricating spring loaded plastic bearing end plug with positive locking wheel allows for adjustment and provides for a secure installation and removal of shade. Tube bearing plug contain minimum 6 ribs and inserted a minimum of 37mm into roller tube. Mounting hardware brackets universal brackets including end plug bracket with lock down retainer device. Brackets finish of powder coated metal installation brackets made of stamped and hardened steel with 46mm projection for wall, ceiling and side fitting with screws and end cap covers. Roller tube circular-shaped aluminum tube extruded from alloy 6060 and temper T66 – EN755 of 37mm inside diameter and outside diameter 40.2mm extruded tube to have a 1.6mm wall thickness with standard anodized natural finish. Heavily reinforced with minimum six internal ribs providing additional tensile strength and allows for secure placements of clutch and end plug. Bottom rail flat-shaped extruded aluminum from alloy 6060 and temper T66 – EN755 of dimension 13mm * 30mm and wall thickness of 1.5mm and weight of 390g/m. Rail standard finish of powder coat white color and provided cover. Ball chain shall be 2mm diameter cord with 4.5mm diameter acetal balls molded coaxially to it on 11.8mm pitch to form an endless ball chain. It is used for raising or lowering action of the shades. Plastic parts all plastic components are UV-stable compounds available white colour.	Square Metre	114.48		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1450	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, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket 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, paneling and dash fasteners to be paid for separately) : **For fixed portion. Powder coated aluminium (minimum thickness of powder coating 50 micron)**	Kilogram	200.00		0.00
1460	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 EPDM rubber / neoprene gasket required (Fittings shall be paid for separately). **Powder coated aluminium (minimum thickness of powder coating 50 micron)**	Kilogram	100.00		0.00
1470	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): **With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)**	Square Metre	28.57		0.00
1480	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. **Upto 5mm depth and 5 mm width**	Meter	114.28		0.00
1490	Providing and fixing 50 micron thick Etching strips (film) over glass Non-fade, self adhesive,easy to cut and trim to size and easy to install, of approved make and manufacturer, fixed as per manufacturer's specifications and as specified in Arch. drawing, all complete in all respects as per direction of the Engineer-in-charge.	Square Metre	244.30		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1500	Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R- 2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	Kilogram	4,793.60		0.00
1510	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI- 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. **For vertical surface two coats @ 0.70 kg per sqm**	Square Metre	1,291.25		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
1520	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI- 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. **For horizontal surface one coat @1.10 kg per sqm.**	Square Metre	1,807.21		0.00
1530	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete : **Serrated with central bulb (225 mm wide, 8-11 mm thick)**	Meter	300.78		0.00
1540	**WATERPROOFING OF TOILETS/SUNKEN PORTIONS** Providing and applying a two component polymer based cementitious waterproofing system using in following sequence: Cleaning the internal surface areas thoroughly so that they are free of all contaminants like dirt and laitance & to remove all the loose materials by variousmeachanical means. Removal of all surface imperfections, protrusions, loose concrete & filling of concrete using Dr fixit URP-Polymer Modified Mortar in the ratio cement: sand (1:4) and 5% by weight of cement. Providing and making fillets at the Junction of the walls and the slabs using cement mortar of 1:4 mix admixed with 5% of SBR latex by weight of cement. Supplying and sealing the Sanitary pipe inserts, electrical fit-outs, etc provided in the floor & walls with Bathseal Tape. Supplying and grouting the gaps around the pipe inserts with Bathseal Grout or Dr. Fixit Microconcrete. The "Nahani" trap, etc is to be fitted securely in the same manner & the gaps around it to be grouted with Bathseal Grout or Dr. Fixit Microconcrete. Supplying & applying 2 coats of Dr. Fixit Bathseal WPC in the sunken areas & extending it up to 150mm above the finished floor level. Extend the coating in shower splash zone 1.5m wide x 1.8m high. This includes laying of a 150mm wide strip of an open woven glass fiber mesh over the angle fillets on the 1st coat while it is still wet. Laying protection plaster 15mm, 1:4 admixed with Dr. Fixit Pidiproof LW+ integral waterproofing compound as per IS 2645 @200 ml per bag of cement.	Square Metre	175.52		0.00

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1550	Providing and laying broken AAC Block in sunken portion of W.C. & kitchen. These broken Block mixed with cement mortar 1:8 (1 cement : 8 coarse sand) laid and compacted properly including supply of labour, material, and tools and plant etc. as per instruction of Engineer-in-charge.	Cubic Metre	52.66		0.00
1560	Grading roof for water proofing treatment with **Cement mortar 1:4 (1cement : 4 coarse sand)**	Cubic Metre	51.98		0.00
1570	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	Square Metre	693.06		0.00
1580	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design : **In 75 x75 mm deep chase**	Meter	299.92		0.00
1590	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	15.00		0.00
1600	**Waterproofing for Terrace** Base preparation of cleaning, brushing and removal of any loose/flacky materials, in case of pot holes/cracks, the same shall be repaired with polymer modified cement mortar using SBR latex. Applying Dr Fixit Flexi PU 270(I) liquid applied, pure polyurethane based, single component, Anti root, low VOC, elastomeric, seamless waterproof rnembrane with elongalion of 400%, tensile strength of 4 Nsqmm, crack bridging upto 2mm applied in 2 coats over one coat of primer at a total consumption of min 1.8 Kg / Sq. Mt. to achieve a DFT of 1.5 mm & thereafter providing & laying 120 GSM polyester geotextile layer. Further laying protective concrete screed of average 75 mm using M20 grade concrete with minimum thickness of 40 mm at the rain water outlet and a slope of 1 ·120, making wattas at the junctions of horizontal and vertical surfaces to a float finish, well compacted, curing for 7 days etc. complete.	Square Metre	693.06		0.00
1610	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). The weight of aluminium extruded section shall be taken for purpose of payment.	Kilogram	4,387.70		0.00

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	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 Dimentional 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.				

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1620	(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 accreditated by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.	Square Metre	438.77		0.00

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	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 NABL accredited lab or any other accreditation body which operates in accordance with ISO/ IEC 17011 and accredits labs as per ISO/IEC 17025 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 1500pa) as per ASTME- 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 ASTME-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				
1630	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 strengthned 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. 1620) 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. **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/ m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.**	Square Metre	438.77		0.00

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1640	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer- in-Charge.	Square Metre	175.51		0.00
	Total Quoted Cost for Sub Head-I (Civil / Interior Works) including all taxes but excluding GST (Rs.), A1				**0.00**
	SUB HEAD-II :- EXTERNAL DEVELOPMENT WORKS				
1650	Carriage of excavated rock by mechanical transport including loading, unloading and stacking (**upto 5 KM**)	Cubic Metre	313.12		0.00
1660	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **All kinds of soil**	Cubic Metre	567.92		0.00
1670	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **Ordinary rock**	Cubic Metre	313.12		0.00
1680	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cubic Metre	567.92		0.00
1690	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth,sides of foundation etc. complete.	Cubic Metre	177.95		0.00
1700	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)**	Cubic Metre	35.78		0.00

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1710	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works upto plinth level. Concrete of M30 grade with minimum cement content of 350 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	150.49		0.00
1720	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. **All works above plinth level upto floor V level. Concrete of M30 grade with minimum cement content of 350 kg /cum** **Note:** Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.	Cubic Metre	18.43		0.00
1730	Centering and shuttering including strutting, propping etc. and removal of form for : **Foundations, footings, bases of columns, etc. for mass concrete**	Square Metre	182.00		0.00
1740	Centering and shuttering including strutting, propping etc. and removal of form for : **Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.**	Square Metre	107.50		0.00
1750	Centering and shuttering including strutting, propping etc. and removal of form for : **Lintels, beams, plinth beams, girders, bressumers and cantilevers**	Square Metre	464.77		0.00
1760	Centering and shuttering including strutting, propping etc. and removal of form for : **Columns, Pillars, Piers, Abutments, Posts and Struts**	Square Metre	307.13		0.00

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1770	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. **Thermo-Mechanically Treated bars of grade Fe-500D or more.**	Kilogram	19,563.70		0.00
1780	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. **Thermo-Mechanically Treated bars of grade Fe-500D or more.**	Kilogram	2,395.90		0.00
1790	Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	Cubic Metre	52.03		0.00
1800	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. **In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works**	Kilogram	3,677.94		0.00
1810	12 mm cement plaster of mix : **1:6 (1 cement: 6 fine sand)**	Square Metre	267.17		0.00
1820	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	Square Metre	267.17		0.00
1830	Finishing walls with textured exterior paint of required shade : **New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm**	Square Metre	267.17		0.00
1840	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : **Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture**	Square Metre	551.69		0.00
1850	Providing and fixing Granite stone slabs 18 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (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.	Square Metre	266.08		0.00
1860	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases.	Each	1,479.18		0.00
1870	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.	Square Metre	642.00		0.00

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1880	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	Cubic Metre	609.90		0.00
1890	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. **With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30**	Cubic Metre	96.30		0.00
1900	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	Cubic Metre	96.30		0.00
1910	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber,finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). **Note**:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately. **Cement concrete prepared with batch mixing machine**	Cubic Metre	96.30		0.00
1920	Providing and fixing pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.) (50 mm wide x 100 mm deep)	Per cm depth Per cm width Per metre length	192.00		0.00
1930	Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge. **Using grade 'A' sealing compound conforming to IS: 1834.(50 mm wide x 50 mm deep)**	Per cm depth Per cm width Per metre length	192.00		0.00

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1940	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete. **New work (Two or more coats)**	Square Metre	134.80		0.00
1950	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	Square Metre	113.96		0.00
1960	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cubic Metre	20.16		0.00
1970	Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.	Square Metre	80.25		0.00
1980	Providing and fixing Glass mossaic tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design as per direction of Engineer-in- Charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge:	Square Metre	53.54		0.00
1990	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 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.**	Square Metre	32.28		0.00
2000	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	Cubic Metre	258.12		0.00

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2010	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment).	Cubic Metre	229.27		0.00
2020	Supplying and stacking at site dump manure from approved source, including carriage **up to 1 km** (manure measured in stacks will be reduced by 8% for payment) : **Screened through sieve of I.S. designation 20 mm**	Cubic Metre	38.21		0.00
2030	Supplying and stacking at site dump manure from approved source, including carriage **up to 1 km** (manure measured in stacks will be reduced by 8% for payment) : **Screened through sieve of I.S. designation 16 mm**	Cubic Metre	38.21		0.00
2040	Supplying and stacking at site dump manure from approved source, including carriage **up to 1 km** (manure measured in stacks will be reduced by 8% for payment) : **Screened through sieve of I.S. designation 4.75 mm**	Cubic Metre	38.21		0.00
2050	Fine dressing of the ground	Square Metre	764.22		0.00
2060	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately).	Cubic Metre	114.63		0.00
2070	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge..	Cubic Metre	114.63		0.00
2080	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth if needed shall be paid for separately). **In rows 5 cm apart in both directions**	Square Metre	382.11		0.00
2090	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth if needed shall be paid for separately). **With grass Turf**	Square Metre	382.11		0.00
2100	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) : **Holes 60 cm dia, and 60 cm deep.**	Each	30.00		0.00
2110	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) : **Holes 45 cm dia, and 45 cm deep.**	Each	20.00		0.00

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2120	Providing Circular Cement Concrete pots of specified size, cast with cement concrete of nominal mix 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 6 mm nominal size), reinforced with 7 nos (3 nos horizontal & 4 nos vertical "U" shape) M.S. wires of 3.5 mm dia as per design, including required form work, finishing with cement punning on exposed surface, curing for specified period and stacking in required rows & height, all complete as per direction of Officer-in-charge. **Top inside dia 35 cm, outer bottom dia 25 cm, total height 35 cm with wall thickness of 25.4 mm**	Each	40.00		0.00
2130	Providing Square Cement Concrete pots of specified size, cast with cement concrete of nominal mix 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size), reinforced with 7 nos. (3 nos horizontal & 4 nos vertical "U" shape) M.S. wires of 3.5 mm dia as per design, including required form work, finishing with cement punning on exposed surface, curing for specified period and stacking in required rows & height , all complete as per direction of Officer-in-charge. **Top inner width 35 cm, outer bottom width 25 cm, total height 35 cm and wall thickness 25.4 mm**	Each	40.00		0.00
2140	Providing and Displaying of Wadelia trilobata plant,full of leaves in 15 cm size of Poly bags & as per direction of the officer-in-charge.	Each	10.00		0.00
2150	Providing and Displaying of Duranta Golden plant, having ht.15 to 20 cm bushty shape plant with fresh and healthy leaves in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge..	Each	15.00		0.00
2160	Providing and Displaying of Iresine herbstii plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	15.00		0.00
2170	Providing and stacking of Alstonia scholaris of height 150-165 cm. in bag of size 25 cm as per direction of the officer-in-charge.	Each	20.00		0.00
2180	Providing and stacking of Bauhinia blakeana (Kachnar) of height 120-150 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	30.00		0.00
2190	Providing and stacking of Bombax ceiba of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	15.00		0.00
2200	Providing and stacking of Grevillea robusta (Silver Oak) of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	20.00		0.00
2210	Providing and stacking of Kigelia pinnata of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	20.00		0.00
2220	Providing and stacking of Melia azedarach of height 120-135 cm. in big poly bag of size 25 cm as per direction of the officer-in-charge.	Each	20.00		0.00
2230	Providing and stacking of Michelia champa (Golden Champa) of height 90- 105 cm. in earthen pots of size 25 cm as per direction of the officer-in-charge.	Each	12.00		0.00

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2240	Providing and stacking of Putranjiva roxburghii of height 90-105 cm. in big polybag of size 25 cm as per direction of the officer-in-charge.	Each	12.00		0.00
2250	Providing and stacking of Calliandra hybrida of height 105-120 cm., well branched, bushy in big size HDPE bag as per direction of the officer-in-charge.	Each	50.00		0.00
2260	Providing and stacking of Gardenia jasminoides of height 45-60 cm. with 3- 4 branches in earthen pots of size 20 cm as per direction of the officer-in-charge.	Each	75.00		0.00
2270	Providing and stacking of Jatropha multifida (red colour) of height 45-60 cm. with 2-3 branches in earthen pots of size 20 cm as per direction of the officer-in-charge.	Each	35.00		0.00
2280	Providing and stacking of Nerium oleander (kaner) of height 45-60 cm. with 3-4 branches in poly bags of size 20 cm as per direction of the officer-in-charge..	Each	50.00		0.00
2290	Providing and stacking of Clerodendrum splendens of height 30 cm to 45 cm. in 20 cm size of Earthen pots / Plastic pots & as per direction of the officer-in-charge.	Each	26.00		0.00
2300	Providing and stacking of Jasmine grandiflorum (chameli) of height 30 cm to 45 cm. in 20 cm size of Earthen pots / Plastic pots & as per direction of the officer-in-charge.	Each	30.00		0.00
2310	Providing and stacking Vertical plantations as per direction of the officer-in-charge.	Square Metre	36.00		0.00
2320	Supplying, fixing, construction and installation of two tier outdoor water fountain with ornamentation work in concrete structure of size 3000mm dia including a block water pump of 1 HP, 64 nozzle jets fitted all around with foam shower fountain and four underwater coloured flood lights with all necessary supply and pipe connections as per direction of Enginner in charge.	Each	1.00		0.00
	Total Quoted Cost for Sub Head-II (External Development Works) including all taxes but excluding GST (Rs.), A2				**0.00**
	SUB HEAD-III :- PLUMBING WORKS				
	Note: **i. Detail of Sanitary fixture are for the information of the Contractor, however model / makes of all sanitary fixture shall be selected by Architect / Interior designer / client and the same shall be binding for execution.** **ii. No additional all fixing cost shall be paid for change in type of sanitary fixture or fitting.** **iii. Provision of extension piece for final connection of CP fitting shall be supplied and installed by the contractor accordingly (as required).**				
	Sanitary Installations				
2330	Providing and fixing white vitreous china extended **wall mounted water closet** of size 350 X 545 X 380mm of approved shape including providing and fixing of concealed cistern with duel flush fitting (2.0/4.0 lts. per flushing), including sheet cover, and cistern fittings, nut bolt gasket,chair etc complete. (**MAKE-1: JAQUAR, MODEL NO. WALL MOUNTED WC : FLS-WHT-5953 & CISTERN & FACE PLATE : JCS-WHT-2400SG & JCP-CHR-152415 OR EQUIVALENT**.)	Each	48.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2340	Providing and fixing white vitreous **china flat back half stall urinal** of size 480 x 300 x 740mm with infrared sensor battery operated automatic flushing systems for urinal to ensure pre-flush & flushing only immediately after use, comprising of all plumbing, electronic and electrical items. (0.75 lts. per flushing) with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :. (**MAKE-1: JAQUAR, MODEL NO. URINAL : URS-WHT-13255 & URINAL Sensor : SNR-CHR-51097 OR EQUIVALENT**.)	Each	8.00		0.00
2350	Providing & fixing glass urinal partition of Height: 900mm,Width: 450mm &Frosted Safety Glass: 8 mm with fixed with expandable anchor fasteners with C.P. brass bolts and washers, embedded in wall with anchor and set in cement concrete complete including cutting and making good the walls wherever required (**MAKE-JAGUAR: MODEL NO-Model No. 1810-US, 1810-UC or EQUIVALENT**.)	Each	4.00		0.00
2360	Providing and fixing white vitreous china Oval shaped wash basin for top/under counter mounting with 15 mm C.P. brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls whereever required. (**MAKE-1: JAQUAR, MODEL NO. WASH BASIN : FSS-WHT-29601 & BASIN MIXER : FLR-CHR-5001BG & WASTE COUPLING : ALD-CHR-705 OR EQUIVALENT**.) White Vitreous China Oval shaped Wash basin size 545 x 545 x 180mm with 15mm CP Brass single hole basin mixer with flow rate 2.5 litre per minute at 3 bar .	Each	44.00		0.00
2370	Providing and fixing Stainless Steel AISI 304 (18/8) kitchen sink 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. **Kitchen sink with drain board. 510x1040 mm bowl depth 250 mm**	Each	11.00		0.00
2380	Providing and fixing hand shower (Health faucet) with 1.2mtr long with 8mm dia Easy Flex Tube with wall hook and flow restrictor with flow rate 6 litre per minute at 3 bar in chrome finish and wall hook. (**MAKE-1: JAQUAR, MODEL NO. HEALTH FAUCET : ALD-CHR-573GA OR EQUIVALENT**.)	Each	48.00		0.00
2390	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge. (**MAKE-1: JAQUAR, MODEL NO. BOTTLE TRAP : ALD-CHR-769L300X190 OR EQUIVALENT**.)	Each	44.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2400	Providing and fixing Differecially abled toilets including Wash basin, Water closet,Cistern, grab bars & hand rails etc. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **For physically handicap person consisting of:** **a)** Wall mounted WC Pan-01 no. with built in Jet of **Make -1: Jaquar, Model No. VGSWHT81751P** **b)** Concealed Cistern Cistern-01 no. of Cera CAT no. **Make - 1: Jaquar, Model No. VGSWHT81201** **c)** Soft Close Seat Cover -01 no of **Make 1: Jaquar Make Seat Cover of VGSWHT81751P** **d)** Wall hung Wash Basin -01 no of **Make 1: Jaquar Model No. CNSWHT801** **e)** Spatula Single lever **Make 1: Jaquar, Model No. FLRCHR5033B** **f)** Wall mounted Grab bar 600 mm long - 2 nos of **Make 1: Jaquar, Model No. WACWHTBR0600** **g)** Wall mounted Hinged hand rail 750 x 100-01 no **Make 1: Jaquar, Model No. WACWHTBG0800** **h)** Bottle Trap **Make 1: Jaquar, Model No. ALDCHR769L300X190** **i)** Waste Coupling **Make 1: Jaquar, Model No. ALDCHR705** **j)** Stainless soap dish **Make 1: Jaquar, Model No. AECESS1131** **k)** Tissue paper holder **Make 1: Jaquar, Model No. ACNCHR1151N**	Each	1.00		0.00
2410	Providing & fixing PVC waste pipe for sink including PVC waste fitting Complete. **Flexible Pipe 40mm Dia**	Each	11.00		0.00
2420	Providing and fixing 600x450 mm beveled 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.	Each	44.00		0.00
2430	Providing & fixing toilet paper holder. **C.P. brass**	Each	48.00		0.00
2440	Providing and fixing soil waste and vent pipes. **100 mm dia. Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905**	Meter	650.00		0.00
2450	Providing and fixing soil waste and vent pipes. **75 mm dia. Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905**	Meter	120.00		0.00
2460	Providing and fixing M.S. holder-bat clamps of approved design to sand cast iron/ centrifugally cast iron(spun) pipes embedded in and including cement concrete blocks 10x 10 x 10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls, etc. **For 100mm dia pipe**	Each	65.00		0.00
2470	Providing and fixing M.S. holder-bat clamps of approved design to sand cast iron/ centrifugally cast iron(spun) pipes embedded in and including cement concrete blocks 10x 10 x 10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls, etc. **For 75mm dia pipe**	Each	12.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2480	Providing and fixing bend of required degree with access door insertion rubber washer 3mm thick, bolts and nuts complete **100 mm dia Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	20.00		0.00
2490	Providing and fixing bend of required degree with access door insertion rubber washer 3mm thick, bolts and nuts complete **75 mm dia Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	5.00		0.00
2500	Providing and fixing plain bend of required degree: **100 mm dia Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	20.00		0.00
2510	Providing and fixing plain bend of required degree: **75 mm dia Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	10.00		0.00
2520	Providing and fixing double equal plain junction of required degree. **100 x 100 x 100 x 100mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	4.00		0.00
2530	Providing and fixing single equal plain junction of required degree. **100 x 100 x 100mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	40.00		0.00
2540	Providing and fixing single equal plain junction of required degree. **75 x 75 x 75mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	10.00		0.00
2550	Providing and fixing single unequal plain junction of required degree : **100x100x75 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	30.00		0.00
2560	Providing and fixing terminal guard **100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	15.00		0.00
2570	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe **100 mm SS 304 grade coupling with EPDM rubber gasket**	Each	1,300.00		0.00
2580	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe **75 mm SS 304 grade coupling with EPDM rubber gasket**	Each	240.00		0.00
2590	Providing and fixing **M.S. stays and clamps** for sand cast iron/centrifugally cast (spun) iron pipe of diameter: 100mm	Each	15.00		0.00
2600	Providing and fixing trap of self cleansing design with sand cast iron screwed down or hinged grating with or without vent, arm complete, including cost of cutting and making good the walls and floors. **100mm inlet and 100mm outlet Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905**	Each	59.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2610	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe. **Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)**	Each	98.00		0.00
2620	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe. **Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)**	Each	81.00		0.00
2630	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe. **Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)**	Each	81.00		0.00
2640	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each	12.00		0.00
2650	Providing, fixing, jointing, testing and commissioning PVC (Class III) of pressure rating 6.0 kg/sqcm Rain water downtake pipe conforming to IS:4985 cut to required lengths including all necessary fittings and specials. Fixing at wall/ceiling level supported by galvanized steel clamps & hangers etc. as required for proper seismic loading as per the calculations. Making proper connection with cement solvent joint as per BIS / manufacturer. Cutting chases/holes in floors / walls / slab. **(All Down take RWP & balcony Drain pipe only). 75 mm diameter pipe**	Meter	20.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2660	Providing, fixing, jointing, testing and commissioning PVC (Class III) of pressure rating 6.0 kg/sqcm Rain water downtake pipe conforming to IS:4985 cut to required lengths including all necessary fittings and specials. Fixing at wall/ceiling level supported by galvanized steel clamps & hangers etc. as required for proper seismic loading as per the calculations. Making proper connection with cement solvent joint as per BIS / manufacturer. Cutting chases/holes in floors / walls / slab. **(All Down take RWP & balcony Drain pipe only). 110 mm diameter pipe**	Meter	200.00		0.00
2670	Providing & fixing Nickel Chromium Plated liquid **soap container/dispenser** with metallic bottle of approved brand & make 112 mm distance from wall of standard shape with bracket (Nickel chromium plating should pass Salt Spray Test for 200 hours) of the same materials with snap fittings of approved quality and colour, complete as per direction of Engineer in Charge. (**MAKE-1 : JAQUAR, MODEL NO. - ACN-CHR-1137N OR EQUIVALENT**.	Each	44.00		0.00
2680	Providing, Fixing of CP brass **Towel Ring** with CP brass wall brackets and providing & fixing CP brass screws complete as required. (**MAKE-1: JAQUAR, MODEL NO. TOWEL RING : ACN-CHR-1121N OR EQUIVALENT**.)	Each	44.00		0.00
2690	Providing, Fixing of CP brass **Towel Rack** 600mm long without hanger with 3 hooks and CP brass screws complete as required. (**MAKE-1: JAQUAR, MODEL NO. TOWEL RACK : ACN-CHR-1181FHN OR EQUIVALENT**.)	Each	36.00		0.00
2700	Providing & fixing **soap dish holder** of approved design. (**MAKE-1: JAQUAR, MODEL NO. SOAP DISH : ACN-CHR-1131N OR EQUIVALENT**.)	Each	36.00		0.00
2710	Providing and fixing CP brass single lever low flow wall mounted Sink mixer with 15 mm CP brass single lever swivel spout with waste complete with flow rate 2.5 litre per minute at 3 bar including cutting and making good the walls where required. (**MAKE-1: JAQUAR, MODEL NO. SINK MIXER : FLR-CHR-5163GD OR EQUIVALENT**.)	Each	11.00		0.00
2720	Providing , Fixing of **CP Brass Shower Mixer** with provision of overhead shower with 115mm long bend pipe, in built spout, spout/shower selector with flow rate 3.8 litre per minute at 3 bar, wall flange complete with all accessories as required and making good the walls wherever required. (**MAKE-1: JAQUAR, MODEL NO. SHOWER MIXER : FLR-CHR-5273UPRGD OR EQUIVALENT**.)	Each	36.00		0.00
2730	Providing , Fixing of CP Brass 450mm long **Shower Arm** with wall flange and pressure adjustable **Overhead Shower with rubit cleaning system** with flow rate 6 litre per minute at 3 bar complete with all accessories as required and making good the walls wherever required. (**MAKE-1: JAQUAR, MODEL NO. SHOWER ARM : SHA-CHR-479L450 & OVERHEAD SHOWER : OHS-CHR-1759GA OR EQUIVALENT**.)	Each	36.00		0.00
2740	Providing,Fixing wall mounted **Double Coat hook** on door complete. (**MAKE-1: JAQUAR, MODEL NO. COAT HOOK : AKP-CHR-35761P OR EQUIVALENT**.)	Each	48.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2750	Providibng and fixing straight type Macfit single body push fit type **WC pan connector** with factory supplied spring loaded seal guard of **McAlpine, UK** with integral single mould sealing fins made of flexible EVA body, including bush/adaptor for use with C.I. Pipe as supplied with the pan connector.	Each	48.00		0.00
2760	Providing and fixing **mirror** of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with **6 mm** thick hard board backing complete as required. (**MAKE-ModiGuard Sparkle Mirror**)	Square Metre	5.00		0.00
2770	Providing & fixing 100mm x 50mm **G.I. waste with reducing elbow & nipple** cutting chases, the floor / slab, repairs complete as required and connection to GI / CI waste pipe.	Each	48.00		0.00
2780	Providing and fixing cast brass **Floor cleanout plug** with suitable insert keys for opening in brass cap, male threaded joint/reducer with G.I. socket caulked to Pipe/fittings of CI pipe including cost of lead joints etc. complete in all respect. **100 mm dia**	Each	41.00		0.00
2790	Providing and fixing **GI inlet fitting** with maximum 3 inlets 32,40 or 50 mm size fabricated from 100 dia GI pipes and sockets,fixed to C.I. trap with Drip Seal joint and set in cement concrete as per standard drawing complete as directed by Engineer-incharge.	Each	59.00		0.00
2800	Providing and fixing **SS Grating** of 125 mm dia of approved quality and colour complete as per direction of engineer in charge. **Circular Type 125 mm nominal dia with 25 mm waste hole**	Each	48.00		0.00
	Water Supply				
2810	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. **Concealed work**, including cutting chases and making good the walls etc. **15 mm nominal outer dia Pipes**	Meter	800.00		0.00
2820	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. **Concealed work**, including cutting chases and making good the walls etc. **20 mm nominal outer dia Pipes**	Meter	210.00		0.00
2830	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. **Concealed work**, including cutting chases and making good the walls etc. **25 mm nominal outer dia Pipes**	Meter	25.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
2840	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. **Concealed work**, including cutting chases and making good the walls etc. **32 mm nominal outer dia Pipes**	Meter	30.00		0.00
2850	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 15 mm nominal outer dia Pipes**	Meter	20.00		0.00
2860	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 20 mm nominal outer dia Pipes**	Meter	85.00		0.00
2870	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 25 mm nominal outer dia Pipes**	Meter	85.00		0.00
2880	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 32 mm nominal outer dia Pipes**	Meter	140.00		0.00
2890	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 40 mm nominal outer dia Pipes**	Meter	105.00		0.00
2900	Providing and fixing **Chlorinated Polyvinyl Chloride (CPVC) pipes**, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. **Internal work - Exposed on Wall. 50 mm nominal outer dia Pipes**	Meter	10.00		0.00

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2910	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 15 mm nominal bore**	Meter	60.00		0.00
2920	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 20 mm nominal bore**	Meter	20.00		0.00
2930	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 25 mm nominal bore**	Meter	45.00		0.00
2940	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 32 mm nominal bore**	Meter	135.00		0.00
2950	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 40 mm nominal bore**	Meter	90.00		0.00
2960	Providing and fixing **GI pipes** complete with GI fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 50 mm nominal bore**	Meter	150.00		0.00
2970	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. **External Work. 25mm nominal nominal bore**	Meter	35.00		0.00
2980	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. **External Work. 65 mm nominal nominal bore**	Meter	205.00		0.00
2990	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : **25 to 40 mm nominal bore**	Each	2.00		0.00
3000	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **20mm nominal bore**	Each	118.00		0.00
3010	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **25mm nominal bore**	Each	15.00		0.00
3020	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **32mm nominal bore**	Each	14.00		0.00
3030	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **40mm nominal bore**	Each	10.00		0.00
3040	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **50mm nominal bore**	Each	6.00		0.00
3050	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end) : **65mm nominal bore**	Each	2.00		0.00
3060	Providing and fixing **ball valve** (brass) of approved quality, High or low pressure, with plastic floats complete : **25mm nominal bore**	Each	2.00		0.00
3070	Providing and fixing **uplasticised PVC connection** pipe with brass unions : **45 cm length 15 mm nominal bore**	Each	110.00		0.00
3080	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 : **Up to 600 mm dia**	Quintal	0.50		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3090	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket : **100 mm dia pipes**	Joint	7.00		0.00
3100	Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329 : **100 mm dia Ductile Iron Double Flanged**	Meter	20.00		0.00
3110	Constructing **masonry Chamber 30x30x50 cm inside**, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design : **With common burnt clay F.P.S (non modular) bricks of class designation 7.5**	Each	5.00		0.00
3120	Constructing **masonry Chamber 60x60x75 cm inside**, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : **With common burnt clay F.P.S (non modular) bricks of class designation 7.5**	Each	1.00		0.00
3130	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **15mm diameter pipe**	Meter	60.00		0.00
3140	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **20mm diameter pipe**	Meter	20.00		0.00
3150	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **25mm diameter pipe**	Meter	45.00		0.00
3160	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **32mm diameter pipe**	Meter	135.00		0.00
3170	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **40mm diameter pipe**	Meter	90.00		0.00
3180	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work : **50mm diameter pipe**	Meter	150.00		0.00
3190	Painting G.I. pipes and fittings with two coats of **anti-corrosive bitumastic paint** of approved quality. **25mm diameter pipe**	Meter	35.00		0.00
3200	Painting G.I. pipes and fittings with two coats of **anti-corrosive bitumastic paint** of approved quality. **65mm diameter pipe**	Meter	205.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
3210	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work : **65 mm diameter pipe**	Meter	205.00		0.00
3220	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **15 mm nominal bore**	Each	1.00		0.00
3230	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **20 mm nominal bore**	Each	1.00		0.00
3240	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **25 mm nominal bore**	Each	1.00		0.00
3250	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **32 mm nominal bore**	Each	1.00		0.00
3260	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **40 mm nominal bore**	Each	1.00		0.00
3270	Providing and fixing **G.I. Union in G.I. pipe** including cutting and threading the pipe and making long screws etc. complete (New work) : **50 mm nominal bore**	Each	1.00		0.00
3280	Providing and fixing C.P. brass **long body bib cock** of approved quality conforming to IS standards and weighing not less than 690 gms with flow rate 2.5 litre per minute at 3 bar. **(MAKE-1: JAQUAR, MODEL NO. LONG BODY BIB COCK : FLR-CHR-5047NG OR EQUIVALENT.) 15mm nominal bore**	Each	5.00		0.00
3290	Providing and fixing C.P. brass **angle valve** for basin mixture and geyser points of approved quality confirming to IS: 8931. **(MAKE-1: JAQUAR, MODEL NO. ANGLE VALVE : AQT-CHR-3057 OR EQUIVALENT.)**	Each	230.00		0.00
3300	Providing and fixing C.I. double acting **air valve** of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) : **50 mm dia**	Each	4.00		0.00
3310	Providing and fixing enclosed type **water meter** (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) : **100 mm dia nominal bore**	Each	1.00		0.00
3320	Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 : **Up to 300 mm dia**	Quintal	0.20		0.00
3330	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	Each	5.00		0.00
3340	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand 6 graded stone aggregate 20 mm nominal size) including disposal of malba.	Meter	5.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3350	Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory. **100 mm diameter C.I. pipe**	100 Metre	0.10		0.00
3360	Providing and fixing **G.I. pipes (IS:1239 Heavy Class)** complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 65 mm diameter pipe**	Meter	95.00		0.00
3370	Providing and fixing **G.I. pipes (IS:1239 Heavy Class)** complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 80 mm diameter pipe**	Meter	30.00		0.00
3380	Providing and fixing **G.I. pipes (IS:1239 Heavy Class)** complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. **Internal work - Exposed on Wall. 100 mm diameter pipe**	Meter	10.00		0.00
3390	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work. **65 mm diameter pipe**	Meter	95.00		0.00
3400	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work. **80 mm diameter pipe**	Meter	30.00		0.00
3410	Painting G.I. pipes and fittings with **synthetic enamel white paint** with two coats over a ready mixed priming coat, both of approved quality for new work. **100 mm diameter pipe**	Meter	10.00		0.00
3420	Providing and fixing **gun metal gate valve** with C.I. wheel of approved quality (screwed end). **15mm nominal bore**	Each	41.00		0.00
3430	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore. **80 mm dia.**	Each	1.00		0.00
3440	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore. **100 mm dia.**	Each	1.00		0.00
3450	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **80 mm dia.**	Each	1.00		0.00
3460	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **100 mm dia.**	Each	1.00		0.00
3470	Providing & fixing CI **`Y' Strainer** (screwed/ flanged) with stainless steel fine wire mesh perforated sheet basket with necessary flange/ unions nuts, bolts and washers complete as required. **80mm nominal bore**	Each	1.00		0.00
3480	Providing & fixing CI **`Y' Strainer** (screwed/ flanged) with stainless steel fine wire mesh perforated sheet basket with necessary flange/ unions nuts, bolts and washers complete as required. **100mm nominal bore**	Each	1.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
3490	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 25mm dia pipe, 600mm long with size of 250x250x6 mm MS plate**	Each	8.00		0.00
3500	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 32mm dia pipe, 600mm long with size of 250x250x6 mm MS plate**	Each	2.00		0.00
3510	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 40mm dia pipe, 600mm long with size of 300x300x6 mm MS plate**	Each	2.00		0.00
3520	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 50mm dia pipe, 600mm long with size of 350x350x6 mm MS plate**	Each	5.00		0.00
3530	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 65mm dia pipe, 600mm long with size of 350x350x6 mm MS plate**	Each	2.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3540	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 80mm dia pipe, 600mm long with size of 400x400x6 mm MS plate**	Each	4.00		0.00
3550	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 100mm dia pipe, 600mm long with size of 400x400x6 mm MS plate**	Each	17.00		0.00
3560	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 150mm dia pipe, 600mm long with size of 450x450x6 mm MS plate**	Each	6.00		0.00
3570	Providing and fixing M.S fabricated hot dipped galvanized coating **puddle flange** comprising of 600 mm dia long M.S class 'B' pipe (screwed end up to 50 mm & flange for more than 50 mm dia) with 6 mm thick M.S plates of required size including cutting holes in centre of plate, inserting pipe & making welded (Arc) joint complete. Same shall be installed with TEC welded joint in position with reinforcement bars of RCC tank wall/slab including making cutout in shuttering during concrete casting of tank of following diameter. **(Location: Underground / Overhead Tanks.) 200mm dia pipe, 600mm long with 6 mm MS plate of size 600mm dia**	Each	2.00		0.00
3580	Supply, installation, testing and commissioning built with **Drinking Water R.O. unit with micron filtration pre-treatment unit**, skid mounted R.O. module with pressure pump and pressure tank, drinking water cooler (High quality SS Tank for Storage 80 lts) , complete in all respects. **(Make & Model No. Eureka Forbes Pure Chill RO Storage Cooler cum Purifier or Equivalent)**	Each	2.00		0.00
3590	Supplying and fixing in position of approved quality **Solenoid Valve** with by-pass arrangement, isolation cock etc. complete with all required accessories such as level sensor, level indicator, level controller and required cabling for the same. **40 mm dia**	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3600	Supplying and fixing in position of approved quality **Solenoid Valve** with by-pass arrangement, isolation cock etc. complete with all required accessories such as level sensor, level indicator, level controller and required cabling for the same. **50 mm dia**	Each	1.00		0.00
3610	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **15mm (9 mm thickness)**	Meter	10.00		0.00
3620	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **20mm (9 mm thickness)**	Meter	20.00		0.00
3630	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **25mm dia (9 mm thickness)**	Meter	25.00		0.00
3640	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **32mm dia (13 mm thickness)**	Meter	30.00		0.00
3650	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **40mm dia (13 mm thickness)**	Meter	45.00		0.00
3660	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **50mm dia (13 mm thickness)**	Meter	20.00		0.00
3670	Providing, Fixing, Testing & Commissioning of **nitrle rubber insulation** on hot water supply pipes. K-Flex, A-Flex, Armacell. The rate include cost of all material & labour involved in the item complete and all as per direction of engineer incharge. **65mm dia (19 mm thickness)**	Meter	50.00		0.00
	Solar Water Heating System-500 LPD: Providing and fixing Solar Hot Water indirect Heating System using heating liquid medium comprising of flat plate solar panels, including all interconnecting insulated G.I. piping, primary and secondary recirculation pumps, pressure type insulated hot water tank, , outlet, Y stainer and a water meter on the inlet, air release valve all mounted on galvanized MS sections complete with connection with the existing piping. Comparising of following:- Five Nos of. flat plate solar collector panels of 8 Sqm size approx. the panels enclosed in insulated collector boxes with single piece toughned glass 4 mm thick and fixed with heat resistant gasket.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
3680	One No. Integrated heat exchanger with **drain down vessel 9 Ltrs**. Capacity,designed so as to provide heat exchange between solar collectors and 500 ltr tank complete with drain down tank. The cold water heated after passing through heat exchanger to be stored in hot water tank. Necessary pumps and controller for automatic operations to be provided. including MS painted frames for the same. M.S Horizontal hot water mixing tank of 500 ltr capacty shall be made out by of 4mm thick M.S. plate and inside lining of 1.0 mm thick stainless steel grade 316 sheet , out side steel primer including 50 mm thick glass wool slab insulation (density of glass wool 64 Kg/Sqm.) & 24 SWG aluminum sheet cladding outside the tank. Tank shall be provided with flanges for inlet outlet, over flow/ drain connection & Vent pipe with M H cover of 450 mm internal dia., Temperature and pressure release valve should be on top of water storage tank All the valve & accessories shall be suitable for an operating pressure of 6.0 kg/sqm including electric back up of 1 x 4.5 KW Primary circulation pump 2 Nos (1W+1S) for circulation of fluid from Solar panels to heat exchanger. Secondary circulation pump 2 Nos (1W+1S) for circulation of fluid from heat exchanger to hot water mixing tank. One Lot of Inter-connected insulated G.I. piping insulated with 9 mm thick nitrile rubber heat resitant insulation sections (Vidoflex or equiv.) and valves with outer mechanical protection of aluminium sheet cladding. Solar Water Heating System as Describe Above	Set	5.00		0.00
3690	Supply , instalation, testing & commissioning of Cubical type branch distribution boards(BDB) of the following types made out of 14 gauge (2 mm thick) CRCA sheet complete with the accessories i/e. interconnections with suitable copper solid strip connections 100 A & above and with copper wires below, painting etc. and complete with supplying & fixing the following boardsetc. as required. Branch Distribution Board for 8x500 LPD System 1 No. 125 AMP rating TP Modulded case circuit breakers with neutral link, front operated handle & thermal magneticrelease (35 Ka) 1 Set 125 Amp 4 Bars Tinned Cu. Bus Bar 1 Set LED type Indication lights 1 No. Digital Voltameter (0-500 V) 1 No. Digital Ammeter (0-125 A) 1 Set CTs for Ammeter 125/5 A ratio 2 Nos. Selector Switched for Voltmeter & Ammeter 3 Nos. 2 A SPMCB	Set	5.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Outgoing 08 Nos 25 A TP MCB , 10 KA (6+2 Spare) 06 Nos. Auto DOL Starter for 0.5 KW motor. Each shall have Auto/ Manual selector switch, over load relay, single phasing preventor, ON/OFF/ Trip indication lamps, ON/OFF push Buttons, contactor. 03 Nos 63 A TP MCB , 20 KA for Electric back up supply. The System is based on temprature difference and the system will operate automatically based on thermostat for startup and shutdown of Primary,Secondry, Receiculation pump and Heating elements on temprature differential. Electric Panel as Describe Above.				
3700	Supply, installation, testing & commissioning of vertical inline multistage pumping set (Imported) with Stainless steel-304 body, Stainless steel-304 impeller, Stainless steel-304 casing, shaft of Stainless steel-316 and C.I. base & head with mechanical seal, connected to a TEFC induction motor suitable for 415+/- 10% volts, 3 phase 50 cycles A.C. supply with 150 mm dia pressure gauge with gunmetal isolation cock, vibration eliminating pads under foundations, 80x40 mm I section base plate bolted to cement concrete foundations complete.Vendor to submit performance curves and technical catalogue of the proposed model for review and information. Hot Water Recirculation Pumps Set of two pumps **(1 Working + 1 Standby)** Capacity - 10 LPM Head - 12.0 Mtr. H.P. - 1.0 HP (Approx.)	Set	1.00		0.00
	Drainage				
3710	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design: **150 mm diameter S.W. pipe**	Meter	5.00		0.00
3720	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design: **250 mm diameter S.W. pipe**	Meter	5.00		0.00
3730	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design : **150 mm diameter S.W. pipe / RCC pipe**	Meter	95.00		0.00
3740	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design : **250 mm diameter S.W. pipe / RCC pipe**	Meter	110.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3750	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design : **300 mm diameter S.W. pipe / RCC pipe**	Meter	120.00		0.00
3760	Providing and fixing square-mouth **S.W. gully trap** class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : **180 x 150mm size P-type. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	3.00		0.00
3770	Providing and laying non-pressure **NP2 class** (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : **(For Sewer & Storm Line) 150 mm dia. R.C.C. pipe**	Meter	95.00		0.00
3780	Providing and laying non-pressure **NP2 class** (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : **(For Sewer & Storm Line) 250 mm dia. R.C.C. pipe**	Meter	110.00		0.00
3790	Providing and laying non-pressure **NP2 class** (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : **(For Sewer & Storm Line) 300 mm dia. R.C.C. pipe**	Meter	120.00		0.00
3800	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : **Inside size 90 x 80 cm and 45 cm deep including CI cover with frame (light duty) 455 x 610mm internal dimensiions total weight of cover and frame to be not less than 38 Kg. (weight of cover 23 Kg. and weight of frame 15 Kg.), with FPS bricks with class designation 7.5. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	8.00		0.00
3810	Extra for depth for manholes: **Size 90 x 80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Meter	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3820	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design : **0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately): With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	18.00		0.00
3830	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m. **With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Meter	2.00		0.00
3840	Providing orange colour safety **foot rest** of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	50.00		0.00
3850	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality **HD - 20 Circular shape 560 mm internal diameter**	Each	18.00		0.00
3860	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete : **For pipes 100 to 250 mm diameter**	Each	2.00		0.00
3870	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design : **With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	6.00		0.00
3880	Providing and fixing **F.R.P. Grating** drain cover M.S. Angle (35 x35 x 5 mm). (Load Bearing cap. 5 T, suitable for car parking, basement, Pump room, Parking Area). **377mm wide and 30mm thick**	Meter	20.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3890	Supply of Grease separator ECO-JET-OD NS 04 with sludge trap capacity 400 Ltrs. according to DIN EN 1825, for free standing installation, of polyethylene, material LLD-PE, with grease storage capacity 200 liters, total wastewater capacity 830 liters, with direct suction, with connecting flange DN 65 PN 10 For local suction line R 2 1/2", with fire hose quick coupling B with 2 odour proof maintenance openings DN 350 inlet and outlet DN 100. With max dimensions: **770x2000x1680mm With Inspection Windows & Filling Device.(Make : ACO Part No. 3554.64.41 or Equivalent)**	Each	1.00		0.00
	Earth Work, Concrete Work & Tubewell				
3900	Excavating trenches of required width for pipe, cables etc including excavation for sockets ,& dressing of sides ,ramming of bottoms ,depth upto 1.5m including getting out the excavated soil,& then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming ,watering, etc and disposing of surplus excavated soil as directed, within lead of 50m. **All kinds of soil. Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia**	Meter	300.00		0.00
3910	Excavating trenches of required width for pipes, cables, etc including excavation for sockets,depth upto 1.5 m, including getting out the excavated matterials, returning the soil as requred in layers not exceeding 20 cm in depth including consolidating each deposited layers by by ramming, watering,etc. and stacking serviceable material for measurements and disposal of unserviceable matterial for measurement and disposal of unserviceable matterial as directed within a lead of 50m: **Ordinary rock. Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia**	Meter	15.00		0.00
3920	Excavating trenches of required width for pipes, cables, etc including excavation for sockets,depth upto 1.5 m, including getting out the excavated matterials, returning the soil as requred in layers not exceeding 20 cm in depth including consolidating each deposited layers by by ramming, watering,etc. and stacking serviceable material for measurements and disposal of unserviceable matterial for measurement and disposal of unserviceable matterial as directed within a lead of 50m: **Hard rock (requiring blasting). Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia**	Meter	10.00		0.00
3930	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **Ordinary Rock**	Cubic Metre	5.00		0.00
3940	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. **Hard Rock(requiring blasting)**	Cubic Metre	5.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
3950	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 20 mm nominal size).**	Cubic Metre	2.00		0.00
3960	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer –in-charge, upto 90 metre depth below ground level. **All types of soil. 400 mm dia.**	Meter	160.00		0.00
3970	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer –in-charge. **200 mm nominal size dia.**	Meter	60.00		0.00
3980	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge. **200 mm nominal size dia.**	Meter	20.00		0.00
3990	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	Cubic Metre	20.00		0.00
4000	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	Hour	24.00		0.00
4010	Providing and fixing suitable size threaded mild steel cap/shoe or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of: **200 mm dia**	Each	1.00		0.00
4020	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete. **200 mm clamp.**	Each	1.00		0.00
4030	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I). **200 mm dia**	Each	1.00		0.00
4040	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore. **80 mm dia.**	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4050	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **80 mm dia.**	Each	1.00		0.00
4060	Providing and fixing 80mm dia GI pipes to IS:1239 heavy class with fittings.	Meter	80.00		0.00
4070	Supply, Lowering, installation & testing of KSB make submersible pumping set with 10 HP motor 18 stage pump suitable for maximum capacity of 20 m3 hr. at 100 mtr. Head respectively. With Three Phase.	Each	1.00		0.00
4080	Providing & fixing cable 6 sq.mm. From submersible pump to panel board.	Meter	100.00		0.00
4090	Providing & fixing Panel Board for submersible pump fitted with DOL starter ammeter, voltmeter single phase preventer standard/indo/cop make MCB of off switch push bottom duly wired and made out of 16/18 SWG sheet.	Each	1.00		0.00
	Rain Water Harvesting				
4100	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. All kinds of soil	Cubic Metre	150.00		0.00
4110	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cubic Metre	150.00		0.00
4120	Extra for every additional lift of 1.5 m or part thereof in. All kinds of soil.	Cubic Metre	30.00		0.00
4130	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size).**	Cubic Metre	25.00		0.00
4140	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves,chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing & reinforcement with1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	Cubic Metre	15.00		0.00
4150	Centering and shuttering including strutting, propping etc. and removal of form for : **Suspended floors, roofs, landings, balconies and access platform**	Square Metre	15.00		0.00
4160	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. **Thermo-Mechanically Treated bars**	Kilogram	60.00		0.00
4170	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: **Cement mortar 1:6 (1 cement : 6 coarse sand)**	Cubic Metre	10.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4180	Providing orange colour safety **foot rest** of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	30.00		0.00
4190	Providing and fixing in position precast RCC manhole cover and frame of required shape and approved quality. **HD-20 circular shape 560 mm internal diameter**	Each	2.00		0.00
4200	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer –in-charge, upto 90 metre depth below ground level. **All types of soil. 400 mm dia.**	Meter	40.00		0.00
4210	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer –in-charge. **200 mm nominal size dia.**	Meter	30.00		0.00
4220	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge. **200 mm nominal size dia.**	Meter	10.00		0.00
4230	Supplying, filling, spreading & levelling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cubic Metre	10.00		0.00
4240	Supplying, filling, spreading & levelling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cubic Metre	15.00		0.00
4250	Supplying, filling, spreading & levelling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer –in-charge.	Cubic Metre	10.00		0.00
4260	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	Cubic Metre	12.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4270	Providing and fixing suitable size threaded mild steel cap/shoe or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of: **200 mm dia**	Each	4.00		0.00
4280	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete. **200 mm clamp.**	Each	2.00		0.00
	Water Supply, Drainage Pumps & Water Treatment Equipments				
4290	Providing, installing, testing and commissining of variable speed (VSPS) hydropneumatic system mounted on a common base plate comprising of vertical centrifugal pumping set with S.S body, stainless steel impeller and mechanical seal, shaft directly coupled to a TEFC induction motor suitable for 400/440 volts, 3 phase, 50 cycles AC supply with 150 mm dia pressure gauge with gunmetal isolation cock, vibration eliminating pads under foundation, one No. microprocessor based controller, dedicated variable frequency drive for each pump, one No.remote sensors, pressure transducers, sequence running cotroller, dry running Protection,motor control centre, necessary power and control cabling from MCC to pumps including required rating of MCB, one No. 90 litre capacity M.S diaphragam tank with interchangeable butyl rubber membrane,complete in all respects including stainless steel grade 316 pipe suction and delivery headers and isolation/ control valves(ball valves/butterfly valves/ Nan return valves/ vibration eliminators etc as required) , power box, equipped with fuses/ isolators/circuit breakers as required. **Hyd. System for Domestic Water Supply Pump** **Flow rate : 90.0 LPM each** Pumping Head - 50 m 1 Set = 2 Nos. pump (1 working+1 standby) Approx H.P. - 3 HP or as per manufacturer recommendation. Location - UGH Pump Room	Set	1.00		0.00
4300	Supplying, installing, testing and commissioning of SS vertical centrifugal pump. Each pump shall have TEFC 2900 RPM three phase electric motor. The pump shall have cast iron head, base plate SS Shaft / Impeller / Intermediate chamber along with motor, pressure gauge with isolation cock, Isolation valve, NRV on delivery line. Isolation valve, stainer (with by-pass) at suction. Pump shall be provided with mechanical seal, suitable vibration elimination pads of approved design, drain pipe with valve (25 dia). The pump shall be suitable for auto/ manual operation. The installation shall be complete with all necessary ancillaries, starter panel / control panel & accessories including base plate complete as required. **The entire Hydropneumatic system shall be factory fitted.** **Flow rate : 60.0 LPM each** Head : 30 Mts Required for : Filter feed pump	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	(1 working + 1 standby) Location - UGH Pump Room				
4310	Supplying, installing, testing and commissioning of SS vertical centrifugal pump. Each pump shall have TEFC 2900 RPM three phase electric motor. The pump shall have cast iron head, base plate SS Shaft / Impeller / Intermediate chamber along with motor, pressure gauge with isolation cock, Isolation valve, NRV on delivery line. Isolation valve, stainer (with by-pass) at suction. Pump shall be provided with mechanical seal, suitable vibration elimination pads of approved design, drain pipe with valve (25 dia). The pump shall be suitable for auto/ manual operation. The installation shall be complete with all necessary ancillaries, starter panel / control panel & accessories including base plate complete as required. **The entire Hydropneumatic system shall be factory fitted.** **Flow rate : 60.0 LPM each** Head : 35 Mts Required for : Flushing water transfer pump (1 working + 1 standby) Location - STP Pump Room	Set	1.00		0.00
4320	Supply, installing, testing and commissioning of submersible open impeller non-clog pumps with C.I.body and to TEFC submersible motor for 415 + 10% volts, 3 phase, 50 cycles A.C. power supply with mechanical seal, pump connector unit with rubber diaphragm and bend, vertical discharge pipe, guide pipe and chain in built level controller, sequence running controller, arrangement for both pumps together inacase of emenegency, audible hooter for failure or flooding, dry running Protection complete in all respects., painting, testing and commissioning complete with approved quality and make as required as per instruction of site incharge. **(Pumps shall be installed in a set of two pumps One working and One standby)** **Basement & Pump Room Drainage Pumps** (Pumps to be suitable to handle solids upto 12 mm size) Capacity - 5.0 LPS (Each) Head - 20 M H.P. - 2.0 HP Approx.	Set	2.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4330	Supply, installing, testing and commissioning of submersible open impeller non-clog pumps with C.I.body and to TEFC submersible motor for 415 + 10% volts, 3 phase, 50 cycles A.C. power supply with mechanical seal, pump connector unit with rubber diaphragm and bend, vertical discharge pipe, guide pipe and chain in built level controller, sequence running controller, arrangement for both pumps together inacase of emenegency, audible hooter for failure or flooding, dry running Protection complete in all respects., painting, testing and commissioning complete with approved quality and make as required as per instruction of site incharge. **(Pumps shall be installed in a set of two pumps One working and One standby)** **Sewage Sump Pumps** (Pumps to be suitable to handle solids upto 40 mm size) Capacity - 5.0 LPS (Each) Head - 20 M H.P. - 3.0 HP Approx.	Set	2.00		0.00
4340	Providing, fixing, testing & commissioning of vertical MSEP filter with adequate dirt holding capacity. Fabricated from FRP sheet as per IS-2825 and manufacturer's specifications complete with intitial charge filter media including painting inside with two coats of non toxic epoxy and with one coat of zinc chromate two coats of synthetic enamel paint outside. Including concrete foudation with cement plaster complete as required. The filter shall also be provided with set of internals for raw water inlet and bottom collecting system. Complete with frontal piping (heavy) . it is designed on 1.50 m / sec velocity. **Dual Media Filter For Domestic Water Supply** Capacity- 2500 LPH Filtration rate- 16000 LPH/Sqm. Filter dia approx. - 300 MM Working pressure: 3.0 Kg/sq cm. Test pressure : 4. 5 Kg/sq cm	Each	1.00		0.00
4350	Providing, fixing, testing & commissioning of vertical MSEP filter with adequate dirt holding capacity. Fabricated from FRP sheet as per IS-2825 and manufacturer's specifications complete with intitial charge filter media including painting inside with two coats of non toxic epoxy and with one coat of zinc chromate two coats of synthetic enamel paint outside. Including concrete foudation with cement plaster complete as required. The filter shall also be provided with set of internals for raw water inlet and bottom collecting system. Complete with frontal piping (heavy) . it is designed on 1.50 m / sec velocity. **Activated Carbon Filter For Domestic Water Supply** Capacity- 2500 LPH	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Filtration rate- 16000 LPH/Sqm. Filter dia approx. - 300 MM Working pressure: 3.0 Kg/sq cm. Test pressure : 4. 5 Kg/sq cm				
4360	Supply Installation,Testing & Commissioning of metering pump type chemical doser with 100 lits. HDPE chemical grade solution tank,injection fitting assembly,suction and delivery hose upto the point of injection, capacity 0-6 lph, complete in all respects. **Chlorination of Domestic Water**	Each	1.00		0.00
4370	Design, manufacture, supplying, fixing in position, testing and commissioning of the following front operated cubicle type, front access 2mm thick mild steel sheet, free standing, dust and vermin proof, switchboard with IP42 protection with hinged and lockable doors complete with interconnections, tinned copper crimping lugs, bonding to earth and painting, suitable for use at 415 volts, 3 phase 4 wire 50 Hz system and suitable for a fault level of 25 MVA symmetrical at 415 volts. All switchboards shall have provision for entry of cables from the top or bottom as required. All live accessible parts shall be shrouded and all equipment shall be finger touch proof. The busbars insulation shall be with heat shrinkable sleeves. SMC/DMC shrouds and busbar supports shall be used. Padlocking facility shall be provided on all outgoing feeders doors and switch handles shall be lockable in OFF position. **Electric Panel For Water Supply Pumps at Water Supply Pump Room** **INCOMING** 1 No. 63 amps TPN MCCB with the following accessories: 1 No. square flush mounting 0-500 volts scaled voltmeter with three way and OFF switch. Three phase indicating lights. Electrolytic high conductivity three phase and neutral tinned copper bus bar rated at 100 amps having a current density of 1 amp per Sqmm suitable to with stand symmetrical fault level of 25 MVA at 415 volts. The neutral bus bar is to be of 100% capacity. **OUTGOING UNITS** Ten 25/40 Amp. TP + NL M.C.C.B. with rotary handle of breaking capacity 25KA Two 63 Amp. TP + NL M.C.C.B. with rotary handle of breaking capacity 25KA 8 Nos. fully automatic DOL starters with push buttons and ON/OFF indicating lights and overload relays for 1.5 to 7.5 HP pump . 8 Nos. rotary selector switch for selecting mode of operation i.e. auto/manual/off. 6 Nos.cyclic relay for automatic duty changeover of pumps. 8 No. single phase preventors.	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	8 Nos. square flush mounting 0-30 amps scaled ammeters with three way and OFF selector switch. Space for 3 Nos. Level Controllers. Switchgear shall be suitable for the HPS of various motors. 1 Nos. 63 Amp. TPN MCB Spare. 2 Nos. 32/40 Amp. TPN MCB Spare. The motor control panel shall be prewired with colour coded wires with identification labels complete in all respects as required.				
4380	Supplying, installing, testing and commissioning controllers with low voltage relays, stainless steel probes and PVC shroud wiring from tank top to probes of required. **Level Controller For Water Supply Pump:** To start pump when water level is low in Domestic Water U.G. tank and shut off pump when Domestic Water U.G. tank is full. Also to stop when water level is low in raw water underground tank.	Each	1.00		0.00
4390	Supplying, installing, testing and commissioning controllers with low voltage relays, stainless steel probes and PVC shroud wiring from tank top to probes of required. **Level Controller For Sump Pumps:** To start pump when water level is high in sump and shut off pump when sump is empty. Both pumps are start when sump is over flowing.	Each	2.00		0.00
4400	Providing and fixing GI pipes complete (IS:1239 Heavy Class) with GI fittings and clamps including MS pipe supports, enamel paint as per specifications cutting and making good the walls etc. complete. **50 mm dia**	Meter	10.00		0.00
4410	Providing and fixing GI pipes complete (IS:1239 Heavy Class) with GI fittings and clamps including MS pipe supports, enamel paint as per specifications cutting and making good the walls etc. complete. **65 mm dia**	Meter	10.00		0.00
4420	Providing and fixing GI pipes complete (IS:1239 Heavy Class) with GI fittings and clamps including MS pipe supports, enamel paint as per specifications cutting and making good the walls etc. complete. **80 mm dia**	Meter	30.00		0.00
4430	Providing and fixing GI pipes complete (IS:1239 Heavy Class) with GI fittings and clamps including MS pipe supports, enamel paint as per specifications cutting and making good the walls etc. complete. **100 mm dia**	Meter	20.00		0.00
4440	Providing and fixing GI pipes complete (IS:1239 Heavy Class) with GI fittings and clamps including MS pipe supports, enamel paint as per specifications cutting and making good the walls etc. complete. **150 mm dia**	Meter	5.00		0.00
4450	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified. **50 mm dia.**	Each	4.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4460	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified. **65 mm dia.**	Each	4.00		0.00
4470	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified. **80 mm dia.**	Each	4.00		0.00
4480	**Butterfly valve** (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified. **100 mm dia.**	Each	2.00		0.00
4490	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **50 mm dia**	Each	4.00		0.00
4500	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **65 mm dia**	Each	4.00		0.00
4510	**Non - return valve** with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified. **80 mm dia**	Each	4.00		0.00
4520	Providing and fixing resilient rubber neoprene lined style arch vibration eliminators suitable for raw water upto 45 deg.C. Temperature working pressure upto 16 Kg/Sqcm. **50 mm dia**	Each	4.00		0.00
4530	Providing and fixing resilient rubber neoprene lined style arch vibration eliminators suitable for raw water upto 45 deg.C. Temperature working pressure upto 16 Kg/Sqcm. **65 mm dia**	Each	4.00		0.00
4540	Providing and fixing resilient rubber neoprene lined style arch vibration eliminators suitable for raw water upto 45 deg.C. Temperature working pressure upto 16 Kg/Sqcm. **80 mm dia**	Each	4.00		0.00
4550	Providing and fixing heavy duty armoured cables 1.1 KVA grade including necessary support clamps at ceiling level and connection lugs complete in all respects. **Power cable Copper 3 core 10 sq.mm**	Meter	10.00		0.00
4560	Providing and fixing heavy duty armoured cables 1.1 KVA grade including necessary support clamps at ceiling level and connection lugs complete in all respects. **Power cable Copper 3 core 6 sq.mm**	Meter	30.00		0.00
4570	Providing and fixing heavy duty armoured cables 1.1 KVA grade including necessary support clamps at ceiling level and connection lugs complete in all respects. **Power cable Copper 3 core 4 sq.mm**	Meter	30.00		0.00
4580	Providing and fixing heavy duty armoured cables 1.1 KVA grade including necessary support clamps at ceiling level and connection lugs complete in all respects. **Control cable copper 2 core 1.5 sq.mm**	Meter	10.00		0.00
	Sewage Treatment Plant				
	SEWAGE TREATMENT PLANT 10 KLD (MBBR Technology) Note : All Civil Works with Structural Walk Ways/ Railings, General Lighting and Ventilation to be Done by Client/Owner.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
4590	Design, Supplying, installing, testing & commissioning of Sewage Treatment Plant of 10 KLD (excluding excavation, back filling & disposal of surplus earth MS / Civil construction work) for the following duty: **Sewage treatment plant shall include the following items:** a. Screen chambers with SS Screen b. Equalization Tank c. Aerobic & Anoxic tank d. MBBR TANK e. Air Blowers f. MBBR Media g. Recirculation pumps, backpulse pump, permeate pump etc. h. Dewatering system j. Electrical Panel, Cabling (Power & Control), Earthing k. Tertiary Treatment l. Clear Water tank and Flushing Water tank. **INLET SEWAGE CHARACTERSTICS (ASSUMED)** pH - 6.0 – 8.5 BOD5 : 250 - 350 mg/lit Total Suspended Solids (TSS) : 250 - 450 mg/lit COD : 500 - 700 mg/lit Oil / Grease : upto 50 mg/lit Inflow time : 24 HRS Peak factor : 3 Temperature : Ambient **Desired Sewage Quality After Treatment** pH : 7 - 8 BOD5 : < 10 mg/lit Total Suspended Solids (TSS) : < 10 mg/lit COD : < 50 mg/lit Oil / Grease : < 5 mg/lit Colour : Colourless Odor : unobjectionable E.coli : Nil NH4-N :< 5 mg/lit N Total :< 10 mg/lit PO4-P : 2 mg/lit	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Note: Vendor shall ensure submission of detailed GA drawings (Plan & Section), P&I diagram, schematic diagram for the above said component and additional component if so required for the complete working of the STP for the full capacity.				
	Total Quoted Cost for Sub Head-III (Plumbing Works) including all taxes but excluding GST (Rs.), A3				**0.00**
	SUB HEAD-IV :- FIRE FIGHTING WORKS				
	Pumps				
	1.NOC from fire authority shall be in the scope of Contractor . Only fee paid to the fire authority shall be reimbursed against the submission of the receipt and nothing shall be paid extra. **2. All the Fire Fighting works shall be done in compliance of Fire Fighting authority requirement.** **Pump shall be capable of furnishing not less than 150% of rated capacity at a head not less than 65 % of rated head. The shut off head shall not exceed 120% of rated head.**				
4600	Supplying, installation, testing and commissioning of Electric driven **Main Fire Pump** suitable for automatic operation and consisting of following, complete in all respects, as required : (a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. (b) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. (c) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. (d) Suitable cement concrete foundation duly plastered with anti vibration pads. **2280 lpm at 70 m Head (For Hydrant & Sprinkler System).** Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm2 pressure at the highest/farthest point.	Set	1.00		0.00
4610	Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (**Diesel Driven Pump**) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered with anti vibration pads. **2280 lpm at 70 m Head (For Hydrant & Sprinkler System).** Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm2 pressure at the highest/farthest point.				
4620	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (**Jockey Pump**). Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. **180 lpm at 70 m Head (For Hydrant & Sprinkler System).**	Set	1.00		0.00
4630	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (**Terrace Pump**) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520. Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horiziontal foot mounted type with Class-'F' insulation, conforming to IS-325. M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. **900 lpm at 35 m Head**	Set	1.00		0.00
	Control Panels				

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A	**B**	**C**	**D**	**E**	**F=D*E**
4640	Fabrication, supply, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required : **Incomings** 250A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Digital Ammeter (0-250 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 300A **Outgoings** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **Main Fire Pump** 125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **Jockey Pump** 63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. 2 Set **Diesel Engine Control** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications.				
4650	Supplying,Installation,testing & commissioning of dust & vermin proof double door with canopy type taperd roof wall / floor mounted compartmentlised feeder piller type cubical control Panel for fire fighting terrace pump of front area not less than 1.0 Sqmtr. and depth not less than 300 mm, made out of 2mm thick CRCA sheet with 100 Amp. 4 strip aluminium bus bars with front openable door & locking arrangement, interconnection, control wiring, intrigation with pressure switch i/c suppying & fixing following switchgears & control gears/starters etc. as required. Incomming (a) 63 Amps. TP & N SFC with HRC fuses (b) Voltmeter (0-500 Volt) with selector switch. (c) Ammeter (0-60 Amps.) with selector switch & CTs. (d) Set of 3 phase indication lamp (e) Suitable HP fully automatic Star/Delta Starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation. (f) Selector switch for local/remote, auto/manual/off operation ON/OFF indication etc.	Set	1.00		0.00
4660	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. It should be complete as per specifications & directions of Engineer-in-charge. **4 x 25 sqmm (28 mm)**	Each	4.00		0.00
4670	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. It should be complete as per specifications & directions of Engineer-in-charge. **3.5 x 50 sqmm (35 mm)**	Each	4.00		0.00
4680	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. It should be complete as per specifications & directions of Engineer-in-charge. **3 X 10 sq. mm (22mm)**	Each	2.00		0.00
4690	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required. **150 mm width x 50mm depth x 1.6 mm thickness.**	Meter	20.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4700	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	4.00		0.00
4710	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	20.00		0.00
4720	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	40.00		0.00
4730	Supplying & laying one number XLPE insulated PVC sheathed Aluminium Conductor armoured UG cable of 1.1 KV grade Conforming to IS 7098/1988 with upto date ammendment of following size in the existing RCC/HUME/ METAL /GI /CI /Stoneware/DWC pipe/ masonary Open Duct/ cable tray/ open in air etc. as required. **4 core, 25 sq.mm. Aluminium Armoure**	Meter	50.00		0.00
4740	Supplying & laying one number XLPE insulated PVC sheathed Aluminium Conductor armoured UG cable of 1.1 KV grade Conforming to IS 7098/1988 with upto date ammendment of following size in the existing RCC/HUME/ METAL /GI /CI /Stoneware/DWC pipe/ masonary Open Duct/ cable tray/ open in air etc. as required. **3.5 core, 50 sq.mm. Aluminium Armoured**	Meter	100.00		0.00
4750	Supplying & laying one number XLPE insulated PVC sheathed Aluminium Conductor armoured UG cable of 1.1 KV grade Conforming to IS 7098/1988 with upto date ammendment of following size in the existing RCC/HUME/ METAL /GI /CI /Stoneware/DWC pipe/ masonary Open Duct/ cable tray/ open in air etc. as required. **3 core, 10 sq.mm. Aluminium Armoured**	Meter	10.00		0.00
4760	Supply and fixing in position 1 m wide Insulation mat made of elastomeric polymers Material (Class -A) of 415V grade as per IS 15642-2006 . Thickness of insulation mat shall be not less than 2 mm to withstand 1.1 KV dielectric strength AS PER IS 15652 : 2006. It should be complete as per specifications & directions of Engineer-in-charge.	Meter	5.00		0.00
	Pipes & Accessories				
4770	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required. **(For Underground) 150 mm. Dia**	Meter	210.00		0.00
4780	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 25 mm dia**	Meter	365.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4790	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 32 mm dia**	Meter	30.00		0.00
4800	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 40 mm dia**	Meter	140.00		0.00
4810	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 50 mm dia**	Meter	105.00		0.00
4820	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 65 mm dia**	Meter	130.00		0.00
4830	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 80 mm dia**	Meter	145.00		0.00
4840	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 100 mm dia**	Meter	45.00		0.00
4850	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. **(Plant Room piping/Vertical Riser/Downcomer/Floor) 150 mm dia**	Meter	200.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4860	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required : **Single headed Gunmetal**	Set	10.00		0.00
4870	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required : **Single headed Gunmetal**	Set	6.00		0.00
4880	Supplying, fixing, testing and commissioning of **butterfly valve** of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : **65mm dia**	Set	1.00		0.00
4890	Supplying, fixing, testing and commissioning of **butterfly valve** of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : **80 mm dia**	Set	2.00		0.00
4900	Supplying, fixing, testing and commissioning of **butterfly valve** of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : **100 mm dia**	Set	2.00		0.00
4910	Supplying, fixing, testing and commissioning of **butterfly valve** of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : **150 mm dia**	Set	12.00		0.00
4920	Supplying and fixing **orifice plate** made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	Each	10.00		0.00
4930	Providing, installation, testing and commissioning of **non-return valve** of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required : **150 mm dia**	Set	1.00		0.00
4940	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. **100 mm dia**	Each	1.00		0.00
4950	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. **150 mm dia**	Each	2.00		0.00
4960	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required : **Gun Metal**	Set	32.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
4970	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipmets on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. **40 m**	Set	10.00		0.00
4980	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required: **Gun metal**	Set	16.00		0.00
4990	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : **2 way-100 mm dia M.S. Pipe. (FOR UG TANK)**	Set	1.00		0.00
5000	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : **4 way - 150 mm dia M.S. Pipe. (FOR UG TANK & EXTERNAL RING MAIN)**	Set	1.00		0.00
5010	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and paintingwith synthetic enamel paint of approved shade as required.	Set	3.00		0.00
5020	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : **Pendent Sprinkler**	Each	202.00		0.00
5030	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : **Upright Sprinkler**	Each	50.00		0.00
5040	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : **Horizontal side wall sprinkler**	Each	75.00		0.00
5050	Providing & fixing of **pressure switch** in M.S. pipe line including connection etc. as required.	Each	4.00		0.00
5060	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required. **100mm dia**	Each	5.00		0.00
5070	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of follwing sizes as required : **150mm dia**	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5080	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. **700 mm**	Each	81.00		0.00
5090	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. **1000 mm**	Each	81.00		0.00
5100	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. **1200 mm**	Each	20.00		0.00
5110	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. **1500 mm**	Each	20.00		0.00
5120	Providing and fixing in position the industrial type **pressure gauges** with gun metal / brass valves complete as required	Each	11.00		0.00
5130	Providing and fixing standard fireman's axe with heavy insulated rubber handle conforming to IS: 926 complete.	Each	10.00		0.00
5140	Providing & Fixing of MS door made up of 16 gauge MS Sheet capable of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry podwer type portable fire extinguishers & accessories. The door shall have a front glass with lock and key arrangement & shall be painted with one coat of primer & two coat of finished stove enamelled post office red colour paint & "FIRE HOSE" written on front. **(Approx. size of door: 2100 mm HEIGHT, WIDTH OF DOOR AS PER SHAFT SIZE)**	Each	10.00		0.00
5150	Providing and fixing hose cabinet of size 750mmX600X250mm made of 16 gause thick MS sheet with 4 mm thick float glass doors in front painted "FIRE" in red paint i/c recessary locking arrangement suitable to accommodate external hydrant with butterfly valve 2 nos. 15 mtr. long hose pipe. 1 no. brach pipe mounted on wall or raised brick platform & duly painted with post office red externally and white internally with synthetic enamel paint complete in all respects for external hydrant. as directed by Engineer-in-Charge.	Each	6.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5160	**Pressure Vessel** Supplying, installing, testing and commissioning of pressure vessel for pressurization of fire system complete with valves at outlet / drain to operate as per operating sequences including 25 mm dia drain valve, air release valve with stop cock on the top, outside with one coat of primer & two coats of synthetic enamel paint of approved shade complete as required to operate commonly main fire pump, sprinkler pump & jockey pump at drop of pressure, automatically at required pressure setting. Complete as per manufacturer's specifications & as directed by Engineer- in-charge. working pressure:- 11 kg/sqcm test pressure: 20 kg/sqcm **(450 mm dia & 2000 mm height)**	Number	1.00		0.00
5170	Providing, Fixing, testing and commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 11 Kg/cm2 and test pressure 16 Kg/cm2 to provide relief from stresses at pipe flanges. **150 mm dia**	Number	4.00		0.00
5180	Providing, Fixing, testing and commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 11 Kg/cm2 and test pressure 16 Kg/cm2 to provide relief from stresses at pipe flanges. **80 mm dia**	Number	2.00		0.00
5190	Supply, fixing, testing and commissioning of screwed type brass/bronze lever operated ball valve of full flow with stainless steel ball (AISI 304 & spindle AISI 410) with setting & gland of superior quality having minimum working pressure of 16 kg/sqcm. **25 mm Dia**	Number	6.00		0.00
5200	Providing and fixing 25 mm dia inspection & testing assembly with gun metal ball valve, gun metal sight glass ,Reducer ,union, G.I PIPE. connection to drain pipe/riser.	Set	5.00		0.00
5210	Providing & fixing cast iron 100 mm dia. Foot valve with nuts, bolts, 1.5 mm thick CAF gasket complete with all accessories (To be provided into UG Fire Water Tanks).	Each	2.00		0.00
5220	Supply and fixing of 4 Nos G.I round bottom FIRE BUCKET of 9 LTR. Capacity field with sand including proper supporting /mounting arrangement MS Angle Iron Frame painted by fire red colour over 2 coats of red oxide paint and written with white paint FIRE complete in all respects as per direction of Engineer Incharge .	Each	4.00		0.00
5230	Providing, fixing water flow meter on test line complete with all accessories for flow indication, monitoring & testing of fire pumps with bypass arrangment including piping & bypass valves. **150 mm dia**	Each	1.00		0.00
	Fire Extinguisher				
	Providing, storing, handling, shifting, installation, testing and commissioning of halon free portable fire Extinguishers as described below:				
	Concealed work, including cutting chases and making good the walls etc.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5240	Providing and fixing of 4.5 Kg. carbon-di-oxide type fire extinguishers consisting of welded M.S. cylinderical body, squeeze lever discharge valve fitted with pressure indicating guase ingernal discharge tube 30 cms long high pressure discharge hose, discharge nozzle, suspension bracket conforming ro IS:15683 finished externally with re enamel paint and fixed to wall with brackets complete with internal charge.	Number	10.00		0.00
5250	Providing and fixing 6.0 Kg. ABC Powder type fire extinguishers consisting of welded M.S. cylinderical body, squeeze lever discharge valve fitted with pressure indicating guase internal discharge tube 30 cms long high pressure discharge hose, discharge nozzle, suspension bracket conforming to IS:15683 finished externally with re enamel paint and fixed to wall with brackets complete with inernal charge.	Number	10.00		0.00
5260	Providing, fixing, testing and commissioning of 50 Litres (trolley mounted) Mechanical Foam type Fire Extinguisher. In HP Mild Steel Cylinders ISI marked TAC approved fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged complete in all respects including wall suspension bracket / trolley mounted and confoming to IS:13386.	Number	1.00		0.00
5270	Providing, fixing, testing and commissioning of CO2 type Fire Extinguisher of capacity 22.5 kg filled with Co2 Gas as per IS 15222 with controll discharge mechanism fitted with Hose, Horn & TROLLEY confirms to IS 2878 bearing ISI mark. Co2 Cylinder as per IS 7285.	Number	1.00		0.00
5280	Providing and fixing 2 kg capacity clean agent-HFC 236FA Stored Pressure type fire extinguisher ISI marked under IS:15683 complete with imported Novec 1230 manufactured by 3M, with Zero Ozone Depeltion Potential and Very Low Global Warming Potential of 1 with 20 Years Blue Sky Warantee against any regulatory Bans and Restrictions.	Number	2.00		0.00
5290	Providing and fixing Fire related signages printed on photoluminescent U1000 aluminium sheet of 1.0 mm (+-10%) containing Lumigen II as base chemical, covered under UV stablized coating and of appropriate size including fixing on wall, door, ceiling etc. with proper clamps, hangers, cleats, anchor fasteners etc.	Square Inch	2,000.00		0.00
	Total Quoted Cost for Sub Head-IV (Fire Fighting Works) including all taxes but excluding GST (Rs.), A4				**0.00**
	SUB HEAD-V :- ELECTRICAL WORKS				
	DG Sets				
	Supply, testing and Commissioning of Silent type Diesel Generating Set at 0.8 PF, 415 Volts, 50 cycles per second, 1500 rpm, 3 phase, suitable for parallel operation / PLC based synchronization, 0.85 load factor including circuit breaker for isolation, sound proof acoustic and weather proof enclosure, residential type silencer (as per CPCB norms-2) fabricated out of CRCA sheet of 16 SWG thickness with 9 tank pretreated before powder coating with ventillation system complete in all respects comprising of the following. **Diesel Engine -**				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5300	Diesel Engine suitable for driving alternator of above rating, compression ignition, 4 stroke cycle, Radiator cooled, turbo charged, battery starting, 1500 RPM, suitable for above output of alternator at 40oC, 50% RH & at 210 M MSL and confirming to BS 5514, BS 649, IS 10000, capable of taking 10% overloading for one hour after 12 hrs of prime continuous loading, complete with all the accessories i.e. tachometer with hour meter, flexible coupling with guard, crank case of steel, crank shaft, conncting rods, electronic governing system, dynamically balanced flywheel, air intake manifold, Air cleaner, anti vibration pads, starter motor, including all other accessories required to complete the system. **Instrument Panel** - Engine mounted Instrument Panel fitted with and having digital display for followings : Start stop switch with key Water temperature indication Lubrication oil pressure indication. Lubrication oil temperature indication. Battery charging indication RPM indication Over speed indication Low Lube oil trip indication Engine hours indication **Alternator -** Synchronous Alternator of above capacity at 0.8 PF, 3 phase, 415 volts, 50 cycles, 4 wire, 1500 RPM, suitable for operation at 40 deg C, 50% RH & at 210 meter above MSL, capable of taking 10% overlioading for one hour after 12 hrs of prime continuous loading, brushless, self excited, self regulated through AVR, continuous duty confirming to IS 4722, BS 2613 suitable for tropical conditions, class H insulation, including terminal box suitable for cable termination as required. **Note** : - Alternator should have with all other accessories as per specified in Technical specfications. **Base Frame** - Both the engine and alternator shall be mounted on suitable base frame made of MS channel which shall be installed on cement concrete foundation and vibration isolating arrangement as per recommendations of manufacturer. **Inbuilt Fuel tank** of standard capacity complete with inlet and outlet connections, oil indication gauge, drain plug, air breather, fuel transfer system for automatic fuel refilling system with pump, piping, valves, level indicators etc. complete.	Set	1.00		0.00

	Name of Bidder:				
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
	Daily service Fuel tank of 990 liters capacity fabricated out of 2 mm thick MS sheet complete with inlet and outlet connections, oil indication gauge, drain plug, air breather, provision for fuel transfer system, level indicators and all standard accessories etc. as required. **Exhaust Silencer** - Exhaust manifold with residential silencer. The D G set should be supplied with required hardware for external PLC based auto synchronization, auto load sharing, auto load management system. **Starting system** - 24 Volt DC starting system comprising of starter motors : voltage regulator and arrangement for initial excitation complete with 12/24 Volts suitable nos. lead acid type batteries of suitable AH. **Ventillation System** - Arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air into the atmosphere as per standard specifications. **125 KVA**				
	Diesel Engine suitable for driving alternator of above rating, compression ignition, 4 stroke cycle, Radiator cooled, turbo charged, battery starting, 1500 RPM, suitable for above output of alternator at 40oC, 50% RH & at 210 M MSL and confirming to BS 5514, BS 649, IS 10000, capable of taking 10% overloading for one hour after 12 hrs of prime continuous loading, complete with all the accessories i.e. tachometer with hour meter, flexible coupling with guard, crank case of steel, crank shaft, conncting rods, electronic governing system, dynamically balanced flywheel, air intake manifold, Air cleaner, anti vibration pads, starter motor, including all other accessories required to complete the system. **Instrument Panel** - Engine mounted Instrument Panel fitted with and having digital display for followings : Start stop switch with key Water temperature indication Lubrication oil pressure indication. Lubrication oil temperature indication. Battery charging indication RPM indication Over speed indication Low Lube oil trip indication Engine hours indication **Alternator -**				

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
5310	Synchronous Alternator of above capacity at 0.8 PF, 3 phase, 415 volts, 50 cycles, 4 wire, 1500 RPM, suitable for operation at 40 deg C, 50% RH & at 210 meter above MSL, capable of taking 10% overlioading for one hour after 12 hrs of prime continuous loading, brushless, self excited, self regulated through AVR, continuous duty confirming to IS 4722, BS 2613 suitable for tropical conditions, class H insulation, including terminal box suitable for cable termination as required. **Note** : - Alternator should have with all other accessories as per specified in Technical specfications. **Base Frame** - Both the engine and alternator shall be mounted on suitable base frame made of MS channel which shall be installed on cement concrete foundation and vibration isolating arrangement as per recommendations of manufacturer. **Inbuilt Fuel tank** of standard capacity complete with inlet and outlet connections, oil indication gauge, drain plug, air breather, fuel transfer system for automatic fuel refilling system with pump, piping, valves, level indicators etc. complete. **Daily service Fuel tank** of 990 liters capacity fabricated out of 2 mm thick MS sheet complete with inlet and outlet connections, oil indication gauge, drain plug, air breather, provision for fuel transfer system, level indicators and all standard accessories etc. as required. **Exhaust Silencer** - Exhaust manifold with residential silencer. The D G set should be supplied with required hardware for external PLC based auto synchronization, auto load sharing, auto load management system. **Starting system** - 24 Volt DC starting system comprising of starter motors : voltage regulator and arrangement for initial excitation complete with 12/24 Volts suitable nos. lead acid type batteries of suitable AH. **Ventillation System** - Arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air into the atmosphere as per standard specifications. **250 KVA**	Set	1.00		0.00
	EXHAUST PIPING				

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
5320	Supply, Fixing, testing and Commissioning of Exhaust gas piping system of Class `B' MS pipe as per IS:1239 for upto 150 mm dia and for 200 mm dia & above MS pipe as per IS:3589 with welded joints, cut to required lengths with necessary bends, fittings, flanges, painting over primer coat, with mineral wool / rock wool insulation of minimum 75 mm thick of 150 Kg per cu M density on all sides of exhaust pipe, with chicken mesh wrapping and 26 SWG aluminium sheet cladding complete as required. The aluminum foil should be tightly cladded to insulation surface of pipe. The aluminum cladding shall be locked with sheet metal screws with other sections of aluminium foil. The measurement shall be done on the basis of centre line. (Stack height should be in accordance with emission regulations of CPCB, which will go well above the top most terrace) The exhaust piping system should be suitable for upto 550oC temperature, the surface temperature of exhaust pipe shall not exceed more than 60oC. (The rates are exclusive of support structure) (Note - Final size of exhaust pipe will be confirmed by the DG vendor after calculating the actual back pressure and submit the same to client / consultant for approval) **100 mm dia (wall thickness - 4.5 mm)**	Meter	20.00		0.00
5330	**EXHAUST PIPING** Supply, Fixing, testing and Commissioning of Exhaust gas piping system of Class `B' MS pipe as per IS:1239 for upto 150 mm dia and for 200 mm dia & above MS pipe as per IS:3589 with welded joints, cut to required lengths with necessary bends, fittings, flanges, painting over primer coat, with mineral wool / rock wool insulation of minimum 75 mm thick of 150 Kg per cu M density on all sides of exhaust pipe, with chicken mesh wrapping and 26 SWG aluminium sheet cladding complete as required. The aluminum foil should be tightly cladded to insulation surface of pipe. The aluminum cladding shall be locked with sheet metal screws with other sections of aluminium foil. The measurement shall be done on the basis of centre line. (Stack height should be in accordance with emission regulations of CPCB, which will go well above the top most terrace) The exhaust piping system should be suitable for upto 550oC temperature, the surface temperature of exhaust pipe shall not exceed more than 60oC. (The rates are exclusive of support structure) (Note - Final size of exhaust pipe will be confirmed by the DG vendor after calculating the actual back pressure and submit the same to client / consultant for approval) **150 mm dia (wall thickness - 4.8 mm)**	Meter	20.00		0.00
5340	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. The item shall be executed for self supported structure for Exhaust Pipe run up to 40 Meter for 2 Nos. 125 & 250 KVA DG Set. The contractor shall submit the structure strength calculation for approval before execution. **In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works**	Kilogram	2,000.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Sub-Station Work				
5350	**11 KV HT VCB SINGLE BREAKER PANEL BOARD (INCOMING CUM OUTGOING)** Supplying, Installation, Testing & Commissioning of indoor type floor mounted metal clad, 11 KV VCB panel with 4 nos VCBs, totally inclosed & fully interlocked, horizontal drawout, horizontal isolation type breaker as per IS 13118, as amended up to date and additional specifications, having capacities as mentioned below, single break, trip free mechanism, manually charged and manually closing breaker suitable for use on 11 KV, 3 phase, 50 Hz A.C. supply with short circuit fault level of 350 MVA, complete with self contained, fully interlocked, rack in and rack out mechanism, air insulated but encapsulated copper bus bars of 600 Amp capacity, breaker featured with mechanical ON/OFF indicator with hand trip device. Spring release coil, shunt trip coil and auxiliary switch of 4 NO + 4 NC and equipped with following switchgears and accessories i/c connections for 3 x 240 sq.mm. XLPE 11 KV cable (cable entry from bottom), end termination with heat shrinkable jointing material etc. as required. (Note - Cost of end termination not included in this item). a) Incomming - 1 No, 630 Amp, VCB. b) 1 No.- 11 KV / 110 Volt PT class 0.5 accuracy and 100 VA burden with 1 No. voltmeter (0-12 KV), digital type, selector switch for voltmeter and protection MCB for HT Metering up to 12 KV on incommer. c) 1 No.- (0 - 350 A) dual scale Ammeter, digital type, selector switch for ammeters. d) 1 No - Microprocessor based numericak relay with O/C, E/F and S/C protection. e) 1 No - set of dual core dual ratio 3 CTs 250/5A of 15 VA burden and accuracy class 0.5 for metering and class 5P10 for protection. f) 1 No. electronic type digital energy analyser having 30 days memory and parameters of KW, KWH, Power factor, frequency etc. Suitable for BMS compatible with all accessories. g) 1 No. hooter with hooter acceptance and reset push button. h) 1 No - Red, Yellow & Blue for phase indication. i) 1 No - Amber for Trip indication. j) 1 No - Red `ON' Green `OFF'indication. k) 1 No - Spring charge indication. l) 1 No - Auto trip indication. m) 1 No. hooter with hooter acceptance and reset push button. n) 1 No. master trip relay. (Electromechanical Type) o) 1 No.Trip ckt supervision relay. (Electromechanical Type) p) Power pack. H.T. Panel described as above	Set	1.00		0.00
	400 KVA, 11KV/415V OIL TYPE CSS				

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
5360	Supply, Providing, Installation, testing and Commissioning of 11 kV / 0.415 KV **Compact Sub Station** outdoor plinth mounted type designed for natural cooling having type tested equipment comprising distribution transformers, SF6 insulated VCB compact switchgear (RMU) having metal enclosed robotically sealed/welded stainless steel tank , L T Panel, interconnection between HT switchgear & Transformer using single core cables and Transformer to LT switchgear using Al bus bars/Cables factory built / ready for connection type, other associated equipment etc. complete as required conforming to detailed specification. The enclosure shall have modular construction using G.I. sheets and shall be painted with polyurethane paint from the exterior of approved shade. The enclosure for LT switchgear & HT switchgear shall be provided with IP54 ingress protection. The transformer compartment will have IP23 ingress protection. Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for each compartment.Transformer compartment door shall be interlocked with HT breaker. The transformer used shall be specially designed for low losses and shall be hermetically sealed & with corrugated tank. The L T ACB shall have inbuilt microprocesor based Over load protection (L), Short Circuit protection (S), Instantaneous Short Circuit protection (I), Earth Fault protection (G), Shunt Trip releases with Ics=Icu=Icw=50 KA for 1 sec, fully rated at 50 deg C ambient temperature with all standard accessories i.e. auxillary switch with 4NO + 4NC contacts, cradle, handle, safety shutter in confirmity with IS:60947 L T Panel BUS : 415 Volts, 3 phase 50 HZ TPN high conductivity electrolytic Aluminium bus bar of suitable length, SMC / DMC supports, with colour coading and insulated by heat shrinkable sleeves and clip on shrouds for joints. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above design ambient temperature of 50 deg C. **The Transformer losses should confirm to IS - 1180 Part-1 (2014) with energy efficiency level -02 [1.225 KW at 50% load & 3.450 KW at 100% load shall not exceeds by 4.5% of the maximum total loss values.** The combination of CSS shall be as per details below:- a) Supply of 1 Way 11kV , 3Phase, 50Hz, 3 wire , earthed neutral, Indoor type floor mounted, non extensible, having hinged arc proof cable doors, breaking capacity 18.4 kA, VCB Ring Main Unit enclosed in robotically laser welded stainless steel tank having IP67 degree of protection consisting of following:-	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	(i) 1 No. 630Amps tee off spring assisted type **vacuum circuit breaker unit** with self powered series trip microprocessor based numerical over current and Earth fault relay for protection, fitted with fixed type voltage indicator device as per IEC 61958 and ring core type protection Current transformer along with LV compartment with Ammeter with selector switches. (ii) Air Insulated **Metering panel** connected along with above unit , 18.4 kA , 630 amps, having Potential transformer, connected jumpers / Bus Bar, LV Compartment to incorporate Votmeter as per the requirement. b) **400 KVA**, 11 / 415 V, three phase, 50 HZ, DYn11, **+5% to -10% in 2.5% equal steps, ON LOAD TAP CHANGER**, oil cooled, outdoor mounting type, hermitically sealed, corrugated wall design low loss transformer with Cu winding with impedance of 4.5% (at 75deg C) , temperature rise above 50 deg C in oil by thermometer 40 deg C, in winding by resistance 45 deg C with standard fittings .(minimum **240 Sq MM HT (E) XLPE AL** cable are used for the connectivity between transformer & HT Breaker) **LT Bus Bars** : 800 AMP, 500 Volts, 3 phase 50 HZ TPN. With fault withstand capacity of min 25 KA for 1 second. **Neutral Bus** : - Separate 2 nos 50 x 6 mm Copper insulated strip (with conductivity min 99%) directly connected from neutral point of transformer. Incoming cum Outgoing - 415 Volt **L.T. breaker Panel** having **800 Amp FP ACB, 50 kA** fixed type, with microprocessor based O/L, E/F, Inst. S/C, S/C releases with CT/PT, ammeter with ASS, Voltmeter with VSS, PF meter, Hz meter, energy enalyser (digital type) consisting of I, V, KW, KWH, KVA, PF, HZ, MDI, phase indicating lamps, On/Offf/Trip indication.				
	MAIN L.T. PANEL Design, Manufacturing, Supply, Receiving, Unloading, Shifting, Installation, Testing & commissioning of Main LT Panel. The panel will be totally enclosed type with, free standing, floor mounted, indoor duty, dust & vermin proof, compartmentlized, front operated, electrical panel fabricated from 2 mm thick M.S. Sheet as per specifications & drawing laid in this document and will be complete with the main and auxiliary bus bars, ammeter, ammeter selector switch, voltmeter, voltmeter selector switch, indication lamps, CT's, protection MCB, interconnection wiring, earth bus and will be powder coated finish with 70 micron thickness. All the busbar joint shall be protected by clip on type sleeve. The Main LT Panel shall use all draw out type breakers suitable for 415 V AC, 3 phase, 50 Hz, 3 phase 4 wire supply system. The panel shall have changeover facility & interlocking through PLC to achieve electrical interlocking, buscoupler switching, auto operation of incommer and bus coupler etc and having following incomming and outgoing Air Circuit Breakers, MCCB as per the drawing and specification. Fault level shall be 25 KA.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
	(Each Incomming / outgoing MCCB shall have microprocessor release and variable current setting from front, adjustable overcurrent, short circuit & earth fault protection, front extended lockable handle, pad lockable in off position, shrouding on incomer side, termination shall be suitable for aluminium bus bars / cables and as per specification.) **The Panel shall have a provision for AUTOMATIC FIRE DETECTION GAS SUPPRESSION flooding system for complete panel of each compartment / section including gas bank of required capacity (Note - Gas Supression flooding sysytem having seperate item).** **Note - Complete panel have BMS compactible. Manufacturer shall provide all types of ports, Potential free contact, Aux contactor as required for integration with BMS.** **INCOMERS from 1 Nos. 400 KVA CSS** 1 nos. 800 AMP. Four Pole, Electrically operated 3 position motorized (220 V AC) drawout type **Air Circuit Breaker** with all inbuilt protections, with microprocessor based release, over current, earth fault, short circuit, Instantaneous short circuit, closing coil (220 V AC), trip coil (24 V DC), shunt trip release, inbuilt U/V release with LCD / LED display for event history with intruppted current value during fault & measurement of current parameters, **50 KA** Breaking Capaciy with all standard accessories i.e. auxillary switch with 4NO + 4NC contacts, cradle, handle, safety shutter in confirmity with IS:60947 The ACB shall be electrically interlocked with the bus coupler, DG incomers and other transformer incomers. 1 nos. 32 amp TP MCB (10 KA) for OLTC (for each transformer incomer) **Protection releases / relays, Metering & Accessories for each Transformer incomers** Surge Protection Device - Type - 01 (Class - B), 10/350 µ sec. (100 / 25KA) Over Voltage / Under Voltage relay / release (3 phase) with timer. Backup earth fault relay. Master trip relay. Trip Circuit Supervison relay. TNC switch. Auto manual selector switch. 1 nos. 0-500 volt range digital type voltmeter with selector switch 1 set of 3 CT's of ratio 800/5A, Class 1.0 accuracy 15 VA burden for metering. 1 set of 3 CT's of ratio 800/5A, Class 1.0 accuracy 15 VA burden for APFCR. 1 set - 415 / √3 / 110 / √3 Class 1.0 accuracy 100 VA burden PT along with primary and secondary fuse. 1 no. CT's of ratio 800/5A, Class 5P20 for protection. 1 no. 0-800 Amp range digital type ammeter with selector switch.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Energy analyser (digital type) consisting of I, V, KW, KWH, KVA, PF, HZ, MDI (EM 6400 of Conzerve or equi.) with RS 485 communication port for communication / report generation. Power factor meter. Frequency meter. 3 Nos. LED type phase indicating lamps, each lamp shall be with bakup MCB along with hooter, auxillary relay, 2 sets of push buttons. 5 Nos. LED type indicating lamp for indicating the status of feeder - ON / OFF / TRIP / Trip circuit healthy / DC supply healthy. Each lamp shall be with bakup MCB. **INCOMERS from 1Nos. 250 KVA D G sets** 1 nos. 630 AMP. Four Pole, Electrically operated 3 position motorized drawout type **Air Circuit Breaker**, with all inbuilt protections, with microprocessor based releases/relays, over current, earth fault, short circuit, Instantaneous short circuit, shunt trip release, closing coil (220 V AC), trip coil (24 V DC), inbuilt U/V release with LCD / LED display for event history & measurement of current parameters with intruppted current value during fault , 50 KA Breaking Capaciy with all standard accessories i.e. auxillary switch with 4NO + 4NC contacts, cradle, handle, safety shutter in confirmity with IS:60947. **Protection releases / relays, Metering & Accessories for each D G set incomers** Over Voltage / Under Voltage relay / release (3 phase) with timer. IDMT earth fault relay. Backup earth fault relay. Master trip relay. Trip Circuit Supervison relay. Reverse power relay. TNC switch. Auto / manual / test selector switch 1 Set - 415 /v3 / 110 / v3 Volts PT Class 1.0 accuracy and 100 VA burden along with primary & secondary MCB. 0-500 volt range digital type voltmeter with selector switch 1 set - 3 CTs of ratio : 600/5A , Class 1.0 accuracy 15 VA each burden for metering. 1 set - 3 CTs of ratio : 600/5A , Class 5P20 accuracy 20 VA each burden for protection. 0-600 Amp range digital type ammeter with selector switch. Energy analyser (digital type) consisting of I, V, KW, KWH, KVA, PF, HZ, MDI (EM 6400 of Conzerve or equi.) with RS 485 communication port for communication / report generation. Frequency meter. Power Factor meter. 1 No -12 point Temp Scanner with Alarm/ Trip contact for winding & bearing.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5370	3 Nos. LED type phase indicating lamps, each lamp shall be with bakup HRC fuse/MCB along with hooter, auxillary relay, 2 sets of push buttons. 5 Nos. LED type indicating lamp for indicating the status of feeder - ON / OFF / TRIP / Trip circuit healthy / DC supply healthy. Each lamp shall be with bakup HRC fuse/MCB. 12 window annunciator with accept / reset / test push button for each DG set for following indications and alarm : set fail to start, engine over heat, high temperature, excitation failure, low lube oil pressure, over speed, low fuel oil level, cooling water flow failure, breaker trip, generator fault, DC control supply failure, out of limit voltages and spares. Push buttons for Test. Accept. Reset. Fault Reset. Engine start, Engine stop, ACB close, ACB Trip Emergency stop. Shut down due to low lube oil pressure/High water temp/Over speed/Low fuel level - set of 4 indication lamps. D G control incorporating engine start / stop indicating three attempt facility and on failure to start, engine lock out. 1 nos battery charger with DC voltmeter and ammeter suitable for the DG sets (250 KVA) Note : In normal case all three lamps shall be ON to indicate that incoming power supply is available. In case of power resumption after failure buzzer shall ring to indicate the power supply is resumed. There shall be one push button to acknowledge the same. The ACB shall be electrically and mechanically interlocked with the bus coupler and Transformer incomers. **INCOMERS from 1Nos. 125 KVA D G sets** 1 No. 250 Amp FP Moulded Case Circuit Breaker & 1 No 250 Amp 4 Pole Contactor. **Protection releases / relays, Metering & Accessories for each D G set incomers** Over Voltage / Under Voltage relay / release (3 phase) with timer. Reverse power relay. TNC switch. Auto / manual / test selector switch 1 Set - 415 /v3 / 110 / v3 Volts PT Class 1.0 accuracy and 100 VA burden along with primary & secondary MCB. 0-500 volt range digital type voltmeter with selector switch 1 set - 3 CTs of ratio : 250/5A , Class 1.0 accuracy 15 VA each burden for metering. 1 set - 3 CTs of ratio : 250/5A , Class 5P20 accuracy 20 VA each burden for protection. 0-250 Amp range digital type ammeter with selector switch. Energy analyser (digital type) consisting of I, V, KW, KWH, KVA, PF, HZ, MDI (EM 6400 of Conzerve or equi.) with RS 485 communication port for communication / report generation. Frequency meter.	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	Power Factor meter. 1 No -12 point Temp Scanner with Alarm/ Trip contact for winding & bearing. 3 Nos. LED type phase indicating lamps, each lamp shall be with bakup HRC fuse/MCB along with hooter, auxillary relay, 2 sets of push buttons. 5 Nos. LED type indicating lamp for indicating the status of feeder - ON / OFF / TRIP / Trip circuit healthy / DC supply healthy. Each lamp shall be with bakup HRC fuse/MCB. 12 window annunciator with accept / reset / test push button for each DG set for following indications and alarm : set fail to start, engine over heat, high temperature, excitation failure, low lube oil pressure, over speed, low fuel oil level, cooling water flow failure, breaker trip, generator fault, DC control supply failure, out of limit voltages and spares. Push buttons for Test. Accept. Reset. Fault Reset. Engine start, Engine stop, ACB close, ACB Trip Emergency stop. Shut down due to low lube oil pressure/High water temp/Over speed/Low fuel level - set of 4 indication lamps. D G control incorporating engine start / stop indicating three attempt facility and on failure to start, engine lock out. 1 nos battery charger with DC voltmeter and ammeter suitable for the DG sets (125 KVA) Note : In normal case all three lamps shall be ON to indicate that incoming power supply is available. In case of power resumption after failure buzzer shall ring to indicate the power supply is resumed. There shall be one push button to acknowledge the same. The ACB shall be electrically and mechanically interlocked with the bus coupler and Transformer incomers. **BUSCOUPLER** 1 No. 250 Amp FP Moulded Case Circuit Breaker & 1 No 250 Amp 4 Pole Contactor. The bus coupler shall be electrically interlocked with all incoming ACB's in such a way that at any one time two supply should not get mixed up. **BUS BARS** 1 sections of 1000 AMP & 2Section of 300 AMP,TPN busbars of aluminium alloy as per SLD. **PLC for load management / automation** Design, manufacturing, testing at works, supply of PLC BASED , AUTOLOAD TRANSFER, AUTOLOAD BALANCING PANEL FOR 1 nos. 250 KVA & 1 nos. 125 KVA D.G. sets complete as required to acheive the desired functions. (Make : ALLEN BRADLEY / SIEMENS / MITSUBISHI / ABB) PLC shall be provided in main LT panel for interlocking between different incomers and bus couplers to avoid unintentional paralleling of different supplies. **PLC shall have with VIEW PANEL**				

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	In addition to required hardware and software following components shall also be provided. Based on the load requirement only required no. of DG sets shall be operated. Monitoring of DG set safeties (mechanical as well as electrical). PLC Hardware as required Auxiliary relays/contactor/metering/protection etc as required 230 V AC, UPS of suitable rating Annunciators as required One no. Battery charger set consisting of Transformer / Rectifier, DC ammeter, DC voltmeter, Charging rate selector switch, Off/Trickle/boost. All control wiring from PLC to various feeders with min. of 2.5 sq mm copper FRLS cable. **OUTGOINGS:** 02 Nos. 400 Amp TP Moulded Case Circuit Breaker (25 KA) 01 Nos. 315 Amp TP Moulded Case Circuit Breaker (25 KA) 01 No. 250 Amp TP Moulded Case Circuit Breaker (25 KA) 12 No. 100 Amp TP Moulded Case Circuit Breaker (25 KA) 04 No. 63 Amp TP Moulded Case Circuit Breaker (25 KA) **CAPACITOR BANK PANEL (130 KVAR - 1 SET) (PART OF MAIN L.T. PANEL)** **INCOMING** 1 Nos. 0 to 500 Volt digital voltmeter with Voltmeter Selector Switch & Protective SP MCB (96mm square) (one for each Incoming Breaker). 1 No. 0 to 300 Amp digital ammeter (96mm square) with CT's. 1 Sets of phase indicating lights (RYB) with protection SP MCB's (one set for each incoming breaker). 1 Sets breaker 'ON' & 'OFF' indicating lamp with protection MCB's (one set for each incoming breaker). 8 Step Automatic Power Factor Correction relay (APFC relay). **BUSBARS** 600 Amp TPN busbars of aluminium alloy as per SLD. **OUTGOING** 4 Nos. 63 Amp TP MCCB. 2 Nos. 32 Amp TP MCCB. 2 No. 16 Amp TP MCCB. 4 Nos. capacitor duty contactor (one for each 25 KVAR capacitor unit). 4 Nos. capacitor duty contactor (one for each 10/5 KVAR capacitor unit). 3 Nos. 25 KVAR Heavy Duty Capacitor Bank, 440 Volt.				

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	2 Nos. 10 KVAR Heavy Duty Capacitor Bank, 440 Volt. 2 No. 5 KVAR Heavy Duty Capacitor Bank, 440 Volt. 8 sets of push button stations Red and Green for manual operation of capacitor units with auto/manual selector switches. 1 No. Indicating lamp for each 25 / 10 / 5 KVAR capacitor unit to indicate that the unit is 'ON'. 1 No. Toggle switch for changing automatic to manual operation of capacitor units. 1 No. Power factor meter. Main LT Panel PLC Based Load Manager Cum Capacitor Panel describe as above				
5380	**11 KV END TERMINATION:** Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required : **3C x 240 Sqmm, 11KV XLPE**	Set	2.00		0.00
5390	**11 KV H.T. CABLE:** Supplying of 11 KV grade aluminium conductor, cross linked polyethylene (XLPE) insulated individual core screened, flat steel/strip armoured PVC sheathed cable complete as required. **3C x 240 Sqmm, 11 KV XLPE**	Meter	30.00		0.00
5400	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. **Above 120 sq. mm and upto 400 sq. mm**	Meter	30.00		0.00
5410	Supply of following sizes of 1.1KV grade Copper conductor XLPE insulated and FRLS PVC sheathed armoured control cable including termination conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **4 core, 2.5 sq.mm.**	Meter	60.00		0.00
5420	Supply of following sizes of 1.1KV grade Copper conductor XLPE insulated and FRLS PVC sheathed armoured control cable including termination conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **10 core, 2.5 sq.mm.**	Meter	60.00		0.00
5430	Supply of following sizes of 1.1KV grade Copper conductor XLPE insulated and FRLS PVC sheathed armoured control cable including termination conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **12 core, 2.5 sq.mm.**	Meter	60.00		0.00
5440	Supplying & Placing of First aid box as approved by St.John Ambulance Brigade /Indian Red Cross society conforming to IS : 2217 - 1963 etc as reqd.	Each	1.00		0.00
5450	Supplying & Installation of Shock treatment chart duly mounted on a wooden frame with glass on, as required in 2 languages (Hindi & English) etc. as reqd	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5460	Supplying and Laying of Rubber mat 1000 mm. Wide to withstand 1.1 KV dielectric strength as per latest IS 15652-2006 etc. as reqd.	Meter	10.00		0.00
5470	Supplying and Laying of Rubber mat 1000 mm. Wide to withstand 11 KV dielectric strength as per latest IS 15652-2006 etc. as reqd.	Meter	5.00		0.00
5480	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **L+P PANEL - 01 & 02 (GROUND & FIRST FLOOR)** **INCOMING** 1 No. 100 Amp FP Moulded Case Circuit Breaker. (25 KA) **BUS BARS** 200 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 12 Nos. 25 Amp DP MCB, (10 KA). 4 Nos. 40 Amp FP MCB, (10 KA). **L+P Panel -01 & 02 (Ground & First Floor) described as above**	Set	2.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5490	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **L+P PANEL - 03 (SECOND FLOOR)** **INCOMING** 1 No. 100 Amp FP Moulded Case Circuit Breaker. (25 KA) **BUS BARS** 200 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 12 Nos. 25 Amp DP MCB, (10 KA). 2 Nos. 25 Amp FP MCB, (10 KA). **L+P Panel-3 (Second Floor) described as above**	Set	1.00		0.00
	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				

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Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
5500	All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **L+P PANEL - 04 (THIRD FLOOR)** **INCOMING** 1 No. 63 Amp FP Moulded Case Circuit Breaker. (25 KA) **BUS BARS** 200 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 8 Nos. 25 Amp DP MCB, (10 KA). **L+P Panel-4 described as above**	Set	1.00		0.00
	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5510	All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **LIFT PANEL (TERRACE FLOOR)** **INCOMING** 2 No. 100 Amp FP Moulded Case Circuit Breaker. (25 KA) 1 No Fixed type Automatic transfer switch 100 Amp rating in open frame with live to live transfer time <150ms. The ATS should have complete switching neutral with zero position having positive isolation and on load manual operation complying to IEC 60947-3 and IEC 60947-6-1. The control unit shall be integral part of the ATS. **The Panel shall have a provision for AUTOMATIC FIRE DETECTION GAS SUPPRESSION flooding system for complete panel of each compartment / section including gas bank of required capacity (Note - Gas Supression flooding sysytem having seperate item).** **BUS BARS** 200 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 3 Nos. 63 Amp TP+N MCCB. (25 KA) 2 Nos. 40 Amp FP MCB. (10 KA) 2 No. 25 Amp DP MCB. (10 KA) **Lift Panel described as above**	Set	1.00		0.00
	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5520	All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **UPS PANEL (BASEMENT FLOOR)** **INCOMING** 1 No 63 Amp FP Moulded Case Circuit Breaker (25 KA) **BUS BARS** 200 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 10 Nos. 25 Amp DP MCB. (10 KA) **UPS Panel (BASEMENT FLOOR) described as above**	Set	1.00		0.00
	Design, Manufacturing, Supply, Receiving, Unloading, Shifting, testing & commissioning of cubicle type totally enclosed free standing type moisture, dust and vermin proof Sub Distribution Board made out of 2.0 mm thick CRCA sheet Steel IP 42 Wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. All MCCB up to 250 A shall have thermalmagnetic release with adjustable over current,short circuit & Earth fault protection and above 250 A shall have microprocessor release with over current, short circuit & earth fault protection With trip history (Faulty phase, type of fault and interupted Current) as per specification & BOQ.				

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A	**B**	**C**	**D**	**E**	**F=D*E**
5530	All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is Ics value. All outgoing MCB's shall be C type with 10 KA breaking capacity. The above board shall be complete with 3 nos. phase indicating lights, One Set of ON/OFF Indicating lanp with Single pole mcb, flush AVF meter with, CT's, PT's, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires. **AC PANEL OUT DOOR TYPE (TERRACE FLOOR)** **INCOMING** 1 No 400 Amp FP Moulded Case Circuit Breaker (25 KA) **BUS BARS** 500 Amp FP aluminium busbar with coloured heat shrinkable sleeve. **OUTGOING** 12 Nos. 63 Amp FP RCCB. (300mA) **AC Panel Out door Type (Terrace Floor) described as above**	Set	1.00		0.00
5540	**EXTERNAL LIGHTING PANEL (OUTDOOR TYPE)** Supply, Installation, Testing & Commissioning of fidder pillar type totally enclosed free standing type moisture, dust, vermin & weather proof (IP-55) Floor Distribution Panel made out of 2.0 mm thick & front cover 1.6 mm thick CRCA sheet complete with following equipments, including digital ammeter with inbuilt ammeter selector switch, digital voltmeter with inbuilt voltmeter selector switch, indicating lamps, CT's, internal wiring with suitable size wires / cable, interconnection, painting, MS Stand, RCC foundation etc complete as per specification & drawing. **INCOMING** 1 No. 63 Amp FP (25 KA Ics) Moulded Case Circuit Breaker. 1 No. AVF Meter withinbuilt selector switch & Protective SP MCB. 1 Set of phase indicating lamps with Protective SP MCB. 1 Set of ON / OFF indicating lamps with Protective SP MCB. 1 Set 24 Hrs TSQ Timer 1 Set 63 Amp, FP Contactor & A/M switch and Push Button.	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	BUS BARS 100 Amp FP aluminium busbar. **OUTGOING** 8 Nos. 25 Amp DP MCB. 3 Nos. 40 Amp DP MCB. Panel described as above				
5550	Supply, installation, testing & commissioning of Sheet steel enclosure suitable for installing of 100A FP MCCB including providing cable termination link in incloming / outgoing side. The item does not include the MCCB.	Set	1.00		0.00
5560	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. **100A, 16 KA, TP MCCB**	Set	1.00		0.00
	Internal & External Electrical Work				
5570	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. **Group C**	Point	460.00		0.00
5580	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. **Group C**	Point	263.00		0.00
5590	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.	Point	40.00		0.00
5600	Wiring for light/ power plug with 2x4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Meter	1,180.00		0.00
5610	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 2x1.5 sq mm + 1x1.5 sq mm earth wire**	Meter	1,650.00		0.00
5620	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 2x2.5 sq mm + 1x2.5 sq mm earth wire**	Meter	1,225.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5630	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 4x2.5 sq mm + 2x2.5 sq mm earth wire**	Meter	340.00		0.00
5640	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 2x6 sq mm + 1x6 sq mm earth wire.**	Meter	950.00		0.00
5650	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 2x10 sq. mm + 1x6 sq. mm earth wire**	Meter	25.00		0.00
5660	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 4x4 sq mm + 2x4 sq mm earth wire**	Meter	120.00		0.00
5670	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 4x6 sq mm + 2x6 sq mm earth wire**	Meter	50.00		0.00
5680	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. **CIRCUIT / SUBMAIN WIRING. 4x10 sq mm + 2x6 sq mm earth wire**	Meter	100.00		0.00
5690	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	Each	466.00		0.00
5700	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	168.00		0.00
5710	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. **5/6 amps switch**	Each	5.00		0.00
5720	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. **15/16 A switch**	Each	5.00		0.00
5730	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. **3 pin 5/6 amp socket outlet**	Each	5.00		0.00
5740	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. **6 pin 15/16 A socket outlet**	Each	6.00		0.00
5750	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. **TV antenna Socket Outlet**	Each	44.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5760	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. **1 or 2 Module (75mmX75mm) - For Telephone,TV outlet & Data**	Each	119.00		0.00
5770	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. **3 Module (100mmX75mm) - For Socket outlet.**	Each	10.00		0.00
5780	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. **6 Module (200mmX75mm) - For Socket outlet.**	Each	2.00		0.00
5790	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. **8 Module (125 mmX125 mm)**	Each	2.00		0.00
5800	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator). **12 Way, Double Door**	Each	43.00		0.00
5810	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator). **8 Way (4+24), Double Door**	Each	5.00		0.00
5820	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, C series Miniature Circuit Breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc,as required. **Single pole**	Each	434.00		0.00
5830	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, C series Miniature Circuit Breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc,as required. **Double pole**	Each	43.00		0.00
5840	Supplying and fixing following rating, four pole, 415 volts, MCB complete with connections, testing and commissioning etc. as required. **40 Amp**	Each	5.00		0.00
5850	Supplying and fixing of following rating double pole (Single phase and neutral) 240 volts, residual current circuit breaker (RCCB), having a current sensivity current 30 miliampere in the existing MCB DB complete with connections, testing & commissioning etc. as required. **25 Amps**	Each	43.00		0.00
5860	Supplying and fixing of following rating double pole (Single phase and neutral) 240 volts, residual current circuit breaker (RCCB), having a current sensivity current 30 miliampere in the existing MCB DB complete with connections, testing & commissioning etc. as required. **40 Amp**	Each	5.00		0.00
5870	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Meter	1,260.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
5880	Supplying and fixing of following sizes of steel conduit alonwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. **20 mm dia**	Meter	100.00		0.00
5890	Supplying and fixing of following sizes of steel conduit alonwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. **25 mm dia**	Meter	3,600.00		0.00
5900	Supplying and fixing of following sizes of steel conduit alonwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. **32 mm dia**	Meter	50.00		0.00
5910	Supplying and fixing of following sizes of steel conduit alonwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. **40 mm dia**	Meter	50.00		0.00
5920	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	50.00		0.00
5930	Supply, erection, testing and commissioning of following sizes of splitter of aluminium die cast body in suitable size of G.I. Box. **10 way**	Each	3.00		0.00
5940	Supply, erection, testing and commissioning of following sizes of splitter of aluminium die cast body in suitable size of G.I. Box. **12 way**	Each	1.00		0.00
5950	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5sq. mm FRLS PVC insulated, copper conductor, single corecable etc. as required.	Each	78.00		0.00
5960	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	78.00		0.00
5970	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting/ LED fittings of all types, complete with all accessories and tube/lamp/ LED etc. directly on ceiling/ wall/ false ceiling with GI Chain included for fixing wherever required, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	701.00		0.00
5980	Supplying & fixing suitable size GI box wih modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet (near equipment point) and 25 A modular SP MCB, “C” curve (at accessible point) including connections, painting etc. as required.	Each	2.00		0.00
5990	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providng and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings). (For UPS Supply)	Each	21.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6000	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **3.5 core, 240 sq.mm.**	Meter	105.00		0.00
6010	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **3.5 core, 150 sq.mm.**	Meter	130.00		0.00
6020	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **3.5 core, 35 sq.mm.**	Meter	320.00		0.00
6030	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **4 core, 16 sq.mm.**	Meter	495.00		0.00
6040	Supply of following sizes of 1.1KV grade aluminium conductor XLPE insulated and FRLS PVC sheathed armoured cable conforming to relevant IS. (Cable shall be purchased only after approval of cable schedule by architect / consultant). **2 core, 6 sq.mm.**	Meter	560.00		0.00
6050	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. **Above 185 sq. mm and upto 400 sq. mm**	Meter	235.00		0.00
6060	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. **Upto 35 sq. mm (clamped with cable tie)**	Meter	1,375.00		0.00
6070	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. **Above 95 sq. mm and upto 185 sq. mm (clamped with cable tie)**	Meter	10.00		0.00
6080	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. **Above 185 sq. mm and upto 400 sq. mm (clamped with cable tie)**	Meter	10.00		0.00
6090	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. **2 x 6 sq. mm (19mm)**	Set	16.00		0.00
6100	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. **3½ X 35 sq. mm (32mm)**	Each	16.00		0.00
6110	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. **3½ X 150 sq. mm (50mm)**	Each	8.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6120	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. **3½ X 240 sq. mm (62mm)**	Each	6.00		0.00
6130	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. **4 X 16 sq. mm (28mm)**	Each	32.00		0.00
6140	Supply & Laying of following sizes of 1.1KV grade multistranded copper conductor FRLS insulated wire including termination complete as required in existing cable tray. **1C x 16 sq.mm PVC Insulated cu wire including end termination.**	Meter	50.00		0.00
6150	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, singlecore cable in surface/ recessed medium class PVC conduit as required. **2 X 10 sq. mm + 1 X 6 sq. mm earth wire**	Meter	50.00		0.00
6160	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **150 mm wide x 50 mm depth x 1.6 mm thickness.**	Meter	45.00		0.00
6170	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **300 mm wide x 50 mm depth x 1.6 mm thickness.**	Meter	20.00		0.00
6180	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **450 mm wide x 50 mm depth x 2.0 mm thickness.**	Meter	55.00		0.00
6190	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **150 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	6.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6200	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **300 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	3.00		0.00
6210	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **450 mm wide x 50 mm depth x 2.0 mm thickness.**	Each	2.00		0.00
6220	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **150 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	3.00		0.00
6230	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **300 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	2.00		0.00
6240	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **450 mm wide x 50 mm depth x 2.0 mm thickness.**	Each	1.00		0.00
6250	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray “Reducer” (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **150 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	1.00		0.00
6260	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray “Reducer” (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **300 mm wide x 50 mm depth x 1.6 mm thickness.**	Each	3.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6270	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Reducer" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required. **450 mm wide x 50 mm depth x 2.0 mm thickness.**	Each	2.00		0.00
6280	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc..direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. **63 mm dia (OD-63 mm & ID-51 mm nominal)**	Meter	20.00		0.00
6290	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc..direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. **120 mm dia (OD-120 mm & ID-103 mm nominal)**	Meter	50.00		0.00
6300	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: **Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	4.00		0.00
6310	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: **Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5**	Each	4.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6320	Supplying, installation, testing and commissioning of Microwave technology based occupancy sensor having high preformance, non regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.6 mtr and for 5m X 20m coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	10.00		0.00
6330	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	20.00		0.00
6340	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	8.00		0.00
6350	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Meter	300.00		0.00
6360	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Meter	20.00		0.00
6370	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	450.00		0.00
6380	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	Meter	160.00		0.00
6390	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	2.00		0.00
6400	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	Each	2.00		0.00
6410	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	Each	16.00		0.00
6420	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Meter	266.00		0.00
6430	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Meter	450.00		0.00
6440	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	Each	16.00		0.00
6450	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Meter	80.00		0.00
6460	Providing and fixing earth bus of 50 mm X 5 mm GI strip on surface for connections etc. as required.	Meter	100.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6470	Supply, Installation, Testing & Commissioning of 6 Mtr High hot dip Galvanized Octagonal Pole with bottom 130mm A/F, top 70 mm A/F made up of 3 mm thick HT plate and 220x220x12 mm base plate and 1000 mm long single arm bracket complete with 4 Nos M20 x 700 mmlong " J type " foundation bolts, suitable RCC foundation etc as complete as required.	Each	10.00		0.00
6480	Supply, Installation, Testing & commissioning of outdoor type (IP 65) Bollard Light 100 mm dia, 800 mm height made out of cast aluminium, 7 to 10 W LED Light with 100 lumen / watt, warm white, stainless steel screw, corrossion & UV resistant coat, including suitable size of CC foundation, grouting bolt, plastering etc as complete as required. (Wipro Cat. No. LB14-880-XXX-65-05)	Each	10.00		0.00
6490	Supply, Installation, Testing & Commissioning of 40 W - 45 Watt LED, Street Light Fitting, made from Die cast Aluminium, having minimum system lumen output of minimum 4500 lumens and minimum efficacy of 100 Lumen / watt, Colour temperature- 5700K/6000K/6500K, CRI > 80 suitable for operation on 220 Volt, 50 HTZ A.C. supply complete with all accessories as per specifications, including connection- enter connection and earthing etc as required. (Wipro Cat. No. LR02-501-XXX-57-G1)	Each	10.00		0.00
6500	Supply, Installation, Testing & commissioning of LED Post Top Light for Gate Light of Philips Make - BGP161 LED2300/WW PSU 220-240V 7043 IN or equivalent as per tender make.	Each	6.00		0.00
6510	Supply, Installation, Testing & commissioning of 2.5W LED Foot light with housing of extruded Aluminium powder coating with tempered glass . The Luminaire shall be with IP65 protection and should have color temperature of 3000K, CRI>70 . The Luminaire shall be of dimension 160X160mm and the integral driver shall be Constant Current driver. The driver efficiency shall be 85% & proper heat sink for heat dissipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with 3 KV internal surge protection.The LED shall be compliant with L70 life of >35000 hrs. (Philips Make-BWG150 LED50/WW PSU 220-240V IP67 7043)	Each	12.00		0.00
6520	Supply, Installation, Testing & commissioning of 40 W, Surface Mounted Device (SMD), LED spot light with Die Cast Aluminum Housing, for better heat dissipation and shall be with suitable connectors. Product comprising of 3000K LEDs. Fixtures should have translucent glass with 30° Beam angle. The luminaire shall have IP66 protection. The LED shall be compliant with Useful L70 life of >35000 Hrs. LED Driver shall be Isolated type, Constant Voltage topology driver in metal enclosure. Driver efficiency should be 85% & proper heat sink for heat dessipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with 3 KV internal surge protection. LED driver shall have output short circuit & over voltage protection inbuilt. LF04-501-030-30-XX+LPV-60-24	Each	8.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6530	Supply, Installation, Testing & commissioning of 40 W,Surface Mounted Device (SMD), LED wall washer with Extruded Aluminum Housing, for better heat dissipation and shall be with suitable connectors. Product comprising of 3000K LEDs. Fixtures should have tempered glass with 30° Beam. The luminaire shall have IP66 protection. The LED shall be compliant with Useful L70 life of >35000 Hrs. Operating temperature 0 to 40°C. LED Driver shall be Isolated type, Constant Voltage topology driver in metal enclosure. Driver efficiency should be 85% & proper heat sink for heat dessipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with 3 KV internal surge protection. LED driver shall have output short circuit & over voltage protection inbuilt. LF01-361-030-30-10+LPV-60-24	Each	16.00		0.00
6540	Supply, Installation, Testing & commissioning of DMX Controller 3-Channel Main Controller 24/48VDC input/output, max. 360W(24V).	Each	6.00		0.00
6550	Supply, Installation, Testing & commissioning of Master DMX Controller	Each	1.00		0.00
6560	Supply of 32-36W Watt, recessed Type, 6500K, LED light fixture, of size 2' x 2', having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. Full Glow RC380B LED36S - 6500 G4 L60 W60 PSU OD OC, Wipro Cat. No. CRCO10S038HP57GL1, Regent Cat. No. Led 1816- SEN 22 SM)	Number	53.00		0.00
6570	Supply of 10-12W Watt, surface Type, LED light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. BN 021 LED10S- 6500 PSU GR S1, Wipro Cat. No. LD80-101-XXX-60-SM, Regent Cat. No. LED 3462 ZING S)	Number	191.00		0.00
6580	Supply of 18-22W Watt, surface Type, LED batten light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. BN021C LED20S PSU CW GR S2, Wipro Cat. No. LL20-221-XXX-65-NE3**, Regent Cat. No. LED 5101 LED TUBE)	Number	36.00		0.00
6590	Supply of 15-18W Watt, recessed Type, LED down light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. DN 394B LED16S-6500 PSU WH, Wipro Cat. No. CRDL11R023HP57, Regent Cat. No. LED 3459 ZOLO)	Number	237.00		0.00
6600	Supply of 10-12W Watt, recessed Type, LED down light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. DN 393B LED12S-6500 PSU WH, Wipro Cat. No. CRDL11R017HP57, Regent Cat. No. LED 3459 ZOLO)	Number	104.00		0.00
6610	Supply & Installation, Testing & Commissioning of 10 watt LED Mirror Tube light, luminous flux of luminaire 1000lm, colour temperature of 4000K,SDCM<5. neutral white with electronic high efficiency electronic driver as complete as required. (Approved Make- Wipro Cat No: LL20-111-XXX-65NE3) or equivalent	Number	44.00		0.00
6620	Supply of 6-10W Watt, surface Type, LED Bulk Head light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. WT202W LED6S CW PSU S2 PC, Wipro Cat. No. LW07-141-XXX-57-G1, Regent Cat. No. LED 9003)	Number	18.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6630	Supply of 22-24W Watt, Recessed Type, LED down light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Philips Cat. No. WT202W LED6S CW PSU S2 PC, Wipro Cat. No. LD06-301-XXX-57-XX, Regent Cat. No. LED 3459 ZOLO)	Number	6.00		0.00
6640	Supply of 5Watt, per meter LED strip Type, light fixture, having minimum system lumen output of 100 Lumen / watt complete as requried. (Make : Wipro Cat. No. LS06-005-120-30-50, Regent Cat. No. LED 5001)	Meter	100.00		0.00
6650	Supply of 1200mm Ceiling fan, energy saving 5-star rated complete as required. (Make : Crompton Greaves Cat. No. Entrust 50, Usha Cat. No. Technix Flair, Havells Cat. No. Efficiencia Neo (BLDC 26 W)	Number	78.00		0.00
6660	Supplying of 250 mm sweep decorative Fresh air fan with all accessories suitable for operation single phase 230 volt 50 cycle per second per sec. AC supply etc. as required. in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning earthing etc. as required.	Number	41.00		0.00
	Data, Telephone System including Active Components				
6670	Supply, Installation, Testing, Commissioning of Cat 6A, 10G U/FTP Cable, 23AWG LSZH as per technical specification.	Meter	1,380.00		0.00
6680	Supply, Installation, Testing & Commissioning of Patch Panel Cat 6A U/FTP 24 Port- Loaded as per technical specification.	Number	2.00		0.00
6690	Supply, Installation, Testing & Commissioning of Patch Panel Cat 6A U/FTP 48 Port- Loaded as per technical specification.	Number	1.00		0.00
6700	Supply, Installation, Testing & Commissioning of Patch Cord Cat 6A U/FTP 3 feet as per technical specification.	Number	40.00		0.00
6710	Supply, Installation, Testing & Commissioning of Patch Cord Cat 6A U/FTP 7 feet as per technical specification.	Number	29.00		0.00
6720	Supply, Installation, Testing, Commissioning of Cat6A, 10G, U/FTP, Information Outlet including G.I. Box and modular cover plate as per technical specification.	Number	69.00		0.00
6730	Supply , Installtion , Testing and comissioning of 12U wall mount rack with fans , 2 cable managers, satationary shelf , 2 Nos of hardware pkts as per technical specification.	Number	1.00		0.00
6740	Supply, Installation, Testing & Commissioning of 24 port 10/100/1000Mbps, 4SFP module, L-2 Switch, POE as per technical specifications.	Each	2.00		0.00
6750	Supply, Installation, Testing & Commissioning of 48 port 10/100/1000Mbps, 4 SFP Module, L-2 Switch, POE as per technical specifications.	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6760	Supply, Installation, Testing & Commissioning of IP Based voice Communication System with 04 Port Voicemail ,04 Port FXS ,04 Port FXO ,1 PRI Trunk lines (10 Ch) Circuit with CLIP Facility , 250 IP users License ,01 Nos. IP Operator Console,100 Party Conference ,Speed Dial, Music on Hold , Internal/ External ring difference ,Call Barring, Call Pickup, - Redundant server in active-Active mode as per technical specification.	Number	1.00		0.00
6770	Supply, Installation, Testing & Commissioning of Type 1 IP Phone . Graphic LCD display with backlight 3 user accounts with multi-line appearance keys Local and company-wide phone directories.	Number	55.00		0.00
6780	Supply, Installation, Testing & Commissioning of Type 2 IP Phone 1 VoIP account , Full duplex speaker phone, IPV6, 2xLAN, PoE.	Number	2.00		0.00
6790	Supply, Installation, Testing & Commissioning of Core Switch 24 1Gb/10GBASE-T ports, 2 10Gb/40Gb QSFP+ ports, 4 10Gb/25Gb/40Gb/50Gb/100Gb capable QSFP28 ports, 2 populated power supplies slots, with suitabe fan module slots, supporting RIP, OSPF, VRRP L3 protocols from day one as per technical specification.	Number	1.00		0.00
6800	Supply, Installation, Testing & Commissioning of SFP+ 10GBASE-SR 10 Gigabit Ethernet Optics, 850 nm for up to 300 m,transmission on multimode fiber (MMF).	Number	1.00		0.00
6810	Supply, Installation, Testing & Commissioning of 6 Core OM4 Multimode Fiber Cable as per technical specification.	Meter	30.00		0.00
6820	Supply, Installation, Testing & Commissioning of 24 Port LC multimode loaded LIU.	Number	2.00		0.00
6830	Supply , Installtion , Testing and comissioning of 48 port loaded LIU for core switch to access switch connectivity over fiber.	Number	1.00		0.00
6840	Supply, Installation, Testing & Commissioning of LC - LC Fiber patch cord OM4, 3 Mtrs.	Number	2.00		0.00
6850	Supply, Installation, Testing & Commissioning of 6 Core, Single Mode, OS2 as complete as required.	Number	20.00		0.00
	Fire Alarm System (Addressable Type)				
6860	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications. **Two Loop Panel.**	Set	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6870	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector acclimate type sensetive level (0.524%) OVS/ft. complete with mounting base complete as required.	Each	1.00		0.00
6880	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed tempreature thermistor complete with base as required.	Each	1.00		0.00
6890	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	Each	12.00		0.00
6900	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	Each	2.00		0.00
6910	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required. (75 DBA @3 mtr. & 75CD flashing)	Each	12.00		0.00
6920	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	Each	1.00		0.00
6930	Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	Meter	300.00		0.00
	IP CCTV System				
6940	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required. **1 run of cable**	Meter	810.00		0.00
6950	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required. **2 run of cable**	Meter	165.00		0.00
6960	Supply installation and commission of outdoor /Indoor camera Bullet camera having maximum resolution of Max. 1920 × 1080 @30fps,2.8 mm/4 mm/6 mm/8 mm/12 mm fixed lens, optional, fine picture at Ultra-low light,supports compression format H.265, H.265+, H.264+, H.264, 3D Digital Noise Reduction support DC12V & PoE (802.3af),IR range: up to 30 m (Make: Honeywell / Tyco / Axis)	Number	22.00		0.00
6970	Supply installation and commission of Dome camera having maximum resolution of Max. 1920 × 1080 @30fps,2.8 mm/4 mm/6 mm/8 mm/12 mm fixed lens, optional, fine picture at Ultra-low light, supports compression format H.265, H.265+, H.264+, H.264, 3D Digital Noise Reduction support DC12V & PoE (802.3af),IR range: up to 30 m (Make: Honeywell / Tyco / Axis)	Number	5.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
6980	SITC of IP network recoder with following feature Processor - Dual-core embedded processor . Two-way Talk - 1 channel Input, 1 channel Output, RCA,Video Output - 1 HDMI, 1 VGA , IP Camera Input - 8/16/32 Channel IP , Compression - H.264+/H.264/MJPEG,Video Resolution - 2560 × 1920, 2048 × 1536, 1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768 , Hard Disk - 4 SATA Ports, up to 8TB ,Motion Detection - MD Zones: 396 (22 × 18),Recording Mode - Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Camera Blank, Video Loss), Alarm, Stop, Backup Mode - USB Device /Network , Interface Ports - 1 HDMI, 1 VGA, 2 USB(1 USB 2.0 , 1 USB 3.0), 1 RS485, 1 RS232, 1 RJ45 (Make: Honeywell / Tyco / Axis)	Number	1.00		0.00
6990	Supply, Installation, Testing and commissioning of Managable 12 port Switch with Power on Ethernet (PoE) enabled, 10/100, RJ45 Access ports with PoE complete as required. (Approved Make : D- Link, CISCO)	Number	3.00		0.00
7000	Supplying and fixing testing and commissioning of 42U rack with front glass, back steel door and side panels, with casters, fan housing units with fans, cable manager, AC main channel with required outlets, earthing kit, Mounting hardware, Stationery shelf complete as required and as per direction of Engineer in Charge. (Approved Make: Comrack / HCL / Rittal / Dynamic.)	Number	1.00		0.00
7010	Supplying and fixing testing and commissioning of 12U rack with front glass, back steel door and side panels, with casters, fan housing units with fans, cable manager, AC main channel with required outlets, earthing kit, Mounting hardware, Stationery shelf complete as required and as per direction of Engineer in Charge. (Approved Make: Comrack / HCL / Rittal / Dynamic.)	Number	3.00		0.00
7020	Supply installation and commissioning of 36 inch LED monitor for disply of camera. (Approved Make : Samsung / sony)	Number	44.00		0.00
7030	Supply installation and commissioning of Undercounter fridge of capacity minimum 45 Litres as approved by Engineer In charge. (Approved Make : Haier / Kelvinator/ Godrej)	Number	35.00		0.00
	UPS System / Inverter				
7040	Supply, installation, testing & commissioing of 15 KVA UPS at 0.99 input power factor with SNMP card, compatible for BMS connectivity on backnet/MODBUS, inbuilt isolation transformer as per specification given in the document with following broad features. a) THD(i) shall be less than 3% in the entire loading range. b) UPS shall carry design output at 40 deg. c) Shall have soft start and hold of for incoming supply. d) Invertor capability to supply 150% load for 5 sec. e) Three Phase Input and Single Phase Output. (Input - 340V - 470V, Three Phase, 4 wire. / Output - 230 Volt, Sinle Phase.) f) Shall not allow deep discharge of the battery and shall not go to 10.5 volts in case of 12 volt cells.	Each	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
	g) Battery shall be external type with rack and suitable for 30 minute backup on 100% load. h) Suitable size of copper cable between UPS and battery bank shall be provided **UPS described as above**				
	Lift System				
7050	**PASSENGER LIFT (VISITOR LIFT)** **LIFT PIT SIZE : 2400(W) X 3000 (D) X 1000 DOOR OPENING** Supplying, Installation, Testing & Commissioning of 10 Passenger (680 Kg) Lifts (Gearless), with rear Side Glass, with Machine Room Less having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications enclosed and as under:- Speed --> 1.0 MPS Floors --> B+G+3 Travel --> 18 Mtrs Approx. Stops & door opening - --> 5/800 mm WideX 2100mm High Controller: A.C. variable voltage & variable frequency drive. Automatic rescue device complete with dry maintenance free batteries as required. Operation: Microprocessor based single automatic push button/Duplex selective/Quadrant collective with / without attendant. Power-415 V, 3 phase, 50 Hz, 4 wires system Type of doors (i) Car Power operated, Two Speed Stainless Steel hail line finish. (SS 304 Grade) (ii) Landing doors : Stainless Steel hail line finish. (SS 304 Grade) Hand rail not less than 600mm long at 900mm above floor level to be fixed on all the three sides adjacent to control panel in the lift car. The Lift shall be provided with Brail System. Ceiling as per manufacturer's standards with Fan & LED Lights. On each Landing outside the lift, a steel plate with illumination sign shall be provided with written on it:- DO NOT USE LIFT IN CASE OF FIRE. Fire man switch at ground floor to be provided. Interlocking provision with Fire detection system shall be provided. Voice announcement system in the car to announce the position of the elevator in the hoistway as the car passes or stops at a floor served by the elevator. IP based CCTV interfaced to be provided. BMS interface for lift position & 3 way Intercom system. 2 Hour Fire rated door. Manufacturer shall be submit the certificate alongwith supply of material from NABL approved Lab. Lift described as above	Set	2.00		0.00
	Access Control System				

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A	**B**	**C**	**D**	**E**	**F=D*E**
7060	Supply ,Installation ,Testing & Commossioning of Single Door Single reader access control panel with onboard 32 Bit RISC ARM CPU, 8MB flash memory, shall support up to 30000 card user, 100000 event transactions, TCP/IP, the panel should have inbuilt 4 GB SD memory card to take mirror image of device configuration. data shall support standard Wiegand readers, Access Control panel should have MODBUS connectivity to integrate the panel with BMS (Building Management System), with metal enclosure & inbuilt power supply, facility of din-rail mounting should available. capable to integrate with IP/CCTV & NVR for access event alerts, Inbuilt door interlocking facility, SNMP alerts facility, Low battery and AC fail alert facility & reader Tamper detection alert facility should available. (Approved Makes: Timewatch, Honeywell ,Smart i.)	Number	7.00		0.00
7070	Supply ,Installation ,Testing & Commossioning of 2 Door 2 reader access control panel with onboard 32 Bit RISC ARM CPU, 8MB flash memory, shall support up to 50000 card user, 200000 event transactions, TCP/IP, the panel should have inbuilt 4 GB SD memory card to take mirror image of device configuration. data shall support standard Wiegand readers, Access Control panel should have MODBUS connectivity to integrate the panel with BMS (Building Management System), with metal enclosure & inbuilt power supply, facility of din-rail mounting should available. capable to integrate with IP/CCTV & NVR for access event alerts, Inbuilt door interlocking facility, SNMP alerts facility, Low battery and AC fail alert facility & reader Tamper detection alert facility should available . (Approved Makes: Timewatch, Honeywell ,Smart i.)	Number	2.00		0.00
7080	Supply, installation, testing and commissioning Short Range (up to 9 cm) Smart Card Reader For Exit of Lift Access Doors , tripod/Flap barrier- Entry & Exit (doors) as per the specification. (Approved Makes: Timewatch, Honeywell ,Smart i.)	Number	9.00		0.00
7090	Supply, installation, testing and commissioning of contactless Clamshell 2K /2Application Area Smart Card suitable for Access Door as per the specification. (Approved Makes: Timewatch, Honeywell ,Smart i.)	Number	18.00		0.00
7100	Supply, installation, testing and commissioning Access Control System Server Software consisting of Access Control system , Alarm Document , Alarm management , All these along with high end security features consist in single package as per specification. Approved (Approved Makes: Timewatch, Honeywell ,Smart i.)	Number	1.00		0.00
7110	Supply, Installation, testing & commissioning of Single Leaf Electro Magnetic Lock of Suitable Capacity(Min 600 lbs) as per specification .Approved. **Single Door Leaf**	Number	7.00		0.00
7120	Supply and Laying of of 8 Core x 0.2 sq mm multi strand, copper, unarmored shielded Cable as per specification (between the every card readers & the access controllers)	Meter	500.00		0.00
7130	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required. **1 run of cable**	Meter	300.00		0.00
7140	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required. **2 run of cable**	Meter	200.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7150	Power Supply- Supply, Installation , testing and commissioning of 12 V SMPS DC Power Supply Unit, highly regulated and spikes free terminal voltage and heavy sourcing current for regulated terminal voltage.	Number	9.00		0.00
7160	Magnetic Contact- Supply, Installation, Testing and commissioning of Magnetic Contact.Approved Makes:/Avigilon/HID/Honeywell	Number	9.00		0.00
7170	Supply , Installation , Testing and commissioning of Single Front Facia Plate consisting of Soft Touch Push Buttons Emergency Exit Door Release and indicator LED to show the door status .Approved Makes:/Avigilon/HID/Honeywell	Number	9.00		0.00
7180	Supplying and fixing of following sizes of steel conduit alonwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. **25 mm dia**	Meter	400.00		0.00
	Solar Photo Voltaic Power Generation System				
7190	Supplying installation testing and commissioning of Grid interactive roof top solar photo voltaic power generation system including all the required accessories like Solar PV module, Grid Tie invertor, arrey junction box, cabling & wiring, earthing, surge protection device, FRLSame structure for mounting of solar panel. The cell shall be poly crystaline silicon cells of 6 inch each and module efficiency shall be more than 17%. Solar module shall have linear output warranty with degradation not exceeding 0.7% FRLSom 2nd Year onwards. Minimum 80% power output must be assured at end of 25 years. The FRLSont glass of solar module shall be low iron tempered glass ARC type. Termination box shall be Thermo-plastic, IP 67 or better, UV resistant with built-in-bypass. The nominal power of a single PV module shall be minimum 325 Wp or higher. Positive power tolerance modules only to be used. RF identification tag for each solar module shall be provided inside the module and must be able to withstand environmental conditions. The solar panel shall be complience of IEC 61215, IEC 61730 certified by TUV Rheinland / UL. The solar panel shall be installed as per BOQ & detailed technical specification.	Kilowatt	5.00		0.00
	Automatic Fire Detection Gas Suppression System in Panels				
	For Main LT Panel, DG Sync Panel. Fire Panel & Elevator Panels				
	Supply, fixing, testing and commissioning of Automatic Linear pneumatic Tube Detection based Novec 1230/ FK5-1-12 System for Electrical Panels (consisting of the following components.				
7200	5Lb Novec 1230/ FK5-1-12, DLP Assembly with automatic valve mounted on DOT approved cylinder, push in connector for tube, 2 Kg Novec 1230/ FK5-1-12 gas, mounting bracket, End of Line adopter and low pressure switch for monitoring system activation.	Number	1.00		0.00
7210	10 Lb Novec 1230/ FK5-1-12, DLP Assembly with automatic valve mounted on DOT approved cylinder, push in connector for tube, 4 Kg Novec 1230/ FK5-1-12 gas, mounting bracket, End of Line adopter and low pressure switch for monitoring system activation.	Number	1.00		0.00
7220	Linear pneumatic heat Detection Tube with all necessary fittings & supports	meter	100.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7230	Master Control Unit with Audio Visual Alarm with wiring to make complete system operational. The Control Panel should have provision for integration with Fire Alarm/SCADA/BMS System (Supply to be provide by the end client at 220 Volt AC).	Number	2.00		0.00
	Total Quoted Cost for Sub Head-V (Electrical Works) including all taxes but excluding GST (Rs.), A5				**0.00**
	SUB HEAD-VI :- HVAC WORKS				
	Airconditioning System with VRV				
	Supplying, installing, testing and commissioning of **Air Cooled Variable Refrigerant Volume System** suitable for R410A and 415V, 50 Hz, AC supply. The unit shall consist of indoor units and external condensing units and other accessories complete in all respects. The unit shall be fully charged with gas and oil. **Notes**: 1) The vendor may offer the outdoor units as per availability from the manufacturer, however keeping the tonnage same as per BOQ subject to approval by Consultant/Client. 2) The indoor units capacity can be also as per availability from the manufacturer but keeping the minimum capacity as required in BOQ subject to approval by Consultant/Client.				
7240	Supplying, installing, testing and commissioning of Both Cooling & Heating **Modular Type Outdoor Condensing Units** equipped with highly efficient Inverter scroll compressors to work on 415 V, 50 Hz AC suply with digital/ inverter technology, special acryl precoated heat exchanger, low noise condenser fan with motor, auto check function for errors in display panel, auto address setting, as per specifications. The COP at AHRI conditions shall not be less than 3.8 .The units shall be complete with necessary mounting frames. Outdoor Unit (ODU shall be provided with cowl duct of minimum 10 to 15 mm ESP). **20 HP (1x20 HP) - 1 Unit**	per HP	20.00		0.00
7250	Supplying, installing, testing and commissioning of Both Cooling & Heating **Modular Type Outdoor Condensing Units** equipped with highly efficient Inverter scroll compressors to work on 415 V, 50 Hz AC suply with digital/ inverter technology, special acryl precoated heat exchanger, low noise condenser fan with motor, auto check function for errors in display panel, auto address setting, as per specifications. The COP at AHRI conditions shall not be less than 3.8 .The units shall be complete with necessary mounting frames. Outdoor Unit (ODU shall be provided with cowl duct of minimum 10 to 15 mm ESP). **26 HP (1x12 HP+1x14 HP) - 2 Unit**	per HP	52.00		0.00
7260	Supplying, installing, testing and commissioning of Both Cooling & Heating **Modular Type Outdoor Condensing Units** equipped with highly efficient Inverter scroll compressors to work on 415 V, 50 Hz AC suply with digital/ inverter technology, special acryl precoated heat exchanger, low noise condenser fan with motor, auto check function for errors in display panel, auto address setting, as per specifications. The COP at AHRI conditions shall not be less than 3.8 .The units shall be complete with necessary mounting frames. Outdoor Unit (ODU shall be provided with cowl duct of minimum 10 to 15 mm ESP). **28 HP (2x14 HP) - 2 Unit**	per HP	56.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7270	Supplying, installing, testing and commissioning of Both Cooling & Heating **Modular Type Outdoor Condensing Units** equipped with highly efficient Inverter scroll compressors to work on 415 V, 50 Hz AC suply with digital/ inverter technology, special acryl precoated heat exchanger, low noise condenser fan with motor, auto check function for errors in display panel, auto address setting, as per specifications. The COP at AHRI conditions shall not be less than 3.8 .The units shall be complete with necessary mounting frames. Outdoor Unit (ODU shall be provided with cowl duct of minimum 10 to 15 mm ESP). **32 HP(2x16HP) - 1 Unit**	per HP	32.00		0.00
7280	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF **Cassette Type Indoor ceiling mounted unit** equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **1.3 TR (450 CFM)**	Each	2.00		0.00
7290	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF **Cassette Type Indoor ceiling mounted unit** equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **1.6 TR (550 CFM)**	Each	6.00		0.00
7300	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF **Cassette Type Indoor ceiling mounted unit** equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **2 TR (650 CFM)**	Each	2.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7310	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF **Cassette Type Indoor ceiling mounted unit** equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **2.8 TR (775 CFM)**	Each	1.00		0.00
7320	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF **Cassette Type Indoor ceiling mounted unit** equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **3.2 TR (1050 CFM)**	Each	3.00		0.00
7330	Supply, installation, testing and commissioning of following minimum capacity and external static pressure VRF/VRV **ceiling mounted ductable type Indoor unit** equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pan, other necessary supports etc., suitable for operation on single phase AC supply 230 V ± 10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiveing signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **Low static ductable units (minimum 25 pascal external static pressure). 1.6 TR (600 CFM)**	Number	28.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7340	Supply, installation, testing and commissioning of following minimum capacity and external static pressure VRF/VRV **ceiling mounted ductable type Indoor unit** equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pan, other necessary supports etc., suitable for operation on single phase AC supply 230 V ± 10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiveing signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **Mid Static Ductable units (minimum 45 pascal external static pressure). 2.1 TR (700 CFM)**	Number	2.00		0.00
7350	Supply, installation, testing and commissioning of following minimum capacity and external static pressure VRF/VRV **ceiling mounted ductable type Indoor unit** equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pan, other necessary supports etc., suitable for operation on single phase AC supply 230 V ± 10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiveing signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **Mid Static Ductable units (minimum 45 pascal external static pressure). 3.2 TR (1100 CFM)**	Number	5.00		0.00
7360	Supply, installation, testing and commissioning of following minimum capacity and external static pressure VRF/VRV **ceiling mounted ductable type Indoor unit** equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pan, other necessary supports etc., suitable for operation on single phase AC supply 230 V ± 10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiveing signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. **High Static Ductable units (minimum 110 pascal external static pressure). 5.5 TR (2050 CFM)**	Number	1.00		0.00
7370	Supplying, installing, testing and commissioning of **Ceiling Suspended Treated Fresh air Units** each complete with coil, filter, etc. Air conditioners with evaporating unit comprising of cooling coil, blower with motor and 220 volt, 1 phase, 50 Hz, AC supply all as per specifications. The rate will also include entire drain pipes and nothing extra shall be payable. **4.5 TR (1100 CFM-FRESH AIR-350CFM)**	Number	7.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7380	Supplying, installing, testing and commissioning of **Ceiling Suspended Treated Fresh air Units** each complete with coil, filter, etc. Air conditioners with evaporating unit comprising of cooling coil, blower with motor and 220 volt, 1 phase, 50 Hz, AC supply all as per specifications. The rate will also include entire drain pipes and nothing extra shall be payable. **5.5 TR (1200 CFM-FRESH AIR-350CFM)**	Number	2.00		0.00
7390	Supplying, installing, testing and commissioning of **Ceiling Suspended Treated Fresh air Units** each complete with coil, filter, etc. Air conditioners with evaporating unit comprising of cooling coil, blower with motor and 220 volt, 1 phase, 50 Hz, AC supply all as per specifications. The rate will also include entire drain pipes and nothing extra shall be payable. **6.5 TR (1600 CFM-FRESH AIR-700CFM)**	Number	1.00		0.00
7400	**Refrigerant Joints and Headers** - Supply, installation, testing and commissioning of Imported fittings Y-joints, distributer and headers for all Indoor units as per layout drawings.	Number	60.00		0.00
7410	**Corded/Cordless Remote Controller** - Supply, installation, testing and commissioning of Corded/Cordless Remote controllers for operation of indoor units	Number	60.00		0.00
7420	**Central Remote Controller** - Supply, installation, testing and commissioning of Central Remote Controller for complete system including all VRV/VRF indoor and outdoor units.	Number	1.00		0.00
7430	**Scheduled Timer** - Supply, installation, testing and commissioning of Scheduled Timer.	Number	1.00		0.00
	REFRIGERANT PIPING - Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required : **NOTES**:- 1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2) Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes. (4) The thickness of fittings used shall be same as that of the pipe.				
7440	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	66.00		0.00
7450	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	198.00		0.00
7460	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	85.80		0.00
7470	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	220.00		0.00
7480	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	66.00		0.00
7490	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	49.50		0.00
7500	25.4 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	25.30		0.00

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7510	28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Meter	55.00		0.00
7520	31.8 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Meter	15.40		0.00
7530	34.9 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Meter	35.20		0.00
7540	38.1 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Meter	19.80		0.00
7550	41.27 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	Meter	25.30		0.00
7560	**DRAIN PIPING** - Supply,installation,testing and commissioning of UPVC drain piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell expanded polythene. **25 mm ID**	Meter	265.10		0.00
7570	**DRAIN PIPING** - Supply,installation,testing and commissioning of UPVC drain piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell expanded polythene. **32 mm ID**	Meter	75.90		0.00
7580	**DRAIN PIPING** - Supply,installation,testing and commissioning of UPVC drain piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell expanded polythene. **40 mm ID**	Meter	90.20		0.00
	Transmission & Control Wiring				
7590	Supplying, installing, testing and commissioning of control cum transmission wiring of 2 core x 1.5 sqmm copper FRLSH, XLPE insulated cable in suitable GI conduits accessories between indoor and outdoor units. Necessary securing of conduit shall be made by contractor. After completion of work wall and floor shall be repaired and brought to its original finish. The rate will also include cost of laying of GI conduit between indoor and outdoor units. **2C x 1.5 Sq mm (Unarmoured)**	meter	425.00		0.00
	Ventilation System				
	Smoke Extraction Fan - Supply, installation testing & commissioning of **Fire Rated** direct driven Axial flow fan. Each fan shall be complete with casing made from mild steel duly enamel painted, adjustable pitch die cast aluminum impeller (HUB & BLADES), mounting clits, structural frame with blank-off sheet, anchor fastener with vibration isolation pad, bird screen at one sides (entry for supply air and exit for exhaust air) and rated Motor with class-H insulation. Motor shall be suitable for 415+10% volts, 50 cycles , 3 phase AC supply. with starter panel. Note: Contractor Has to take approval on computer generated selection charts and fan curves showing power input and fan motor etc. prior to order the fans,(a) Noise level @ 3m from Fan shall be less than 78 dBA. with starter panel. Note:-These fans would be connected to the fire alarm system of the building and would start automatically in case of Fire				
7600	Each fan Capacity 3000 CFM, SP 15 mm wg- (Electrical Room)	Each	1.00		0.00
7610	Each fan Capacity 3500 CFM, SP 15 mm wg -(Pump Room & STP Room)	Each	1.00		0.00
	Supply Air/Pressurization Fan - Supply, installation testing & commissioning of direct driven Axial flow fan. Each fan shall be complete with casing made from mild steel duly enamel painted, adjustable pitch die cast aluminum impeller (HUB & BLADES), mounting clits, structural frame with blank-off sheet, anchor fastener with vibration isolation pad, bird screen at both sides and rated Motor with class-F insulation. Motor shall be suitable for 415+10% volts, 50 cycles , 3 phase AC supply. with starter panel.				

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	Note: Contractor Has to take approval on computer generated selection charts and fan curves showing power input and fan motor etc. prior to order the fans,(a) Noise level @ 3m from Fan shall be less than 78 dBA. with starter panel. Note:-These fans would be connected to the fire alarm system of the building and would start automatically in case of Fire				
7620	Each fan Capacity 6000 CFM, SP 20 mm wg	Each	2.00		0.00
7630	Each fan Capacity 3000 CFM, SP 15 mm wg- (Electrical Room)	Each	1.00		0.00
7640	Each fan Capacity 3500 CFM, SP 15 mm wg -(Pump Room & STP Room)	Each	1.00		0.00
7650	**INLINE FAN (Ceiling suspended)** - Supply, installation, testing, commissioning of Inline fan with vibration isolators & speed regulator, complete as per specification and drawing. The Motor shall be suitable to run on 1 phase/50 hz/ 220 v electrical power. **400 cfm, 10 mm static pressure**	Each	4.00		0.00
7660	**PROPELLER FAN**: Supply, installation, testing, commissioning of ceiling mounted fan with gravity louvers, vibration isolators & speed regulator, complete as per specification and drawing. **100 CFM**	Each	35.00		0.00
	Ducting Work				
7670	Supply. Installation, testing and commissioning of **factory fabricated G.I. Sheet metal ducts** with flanges, inbuilt sealant, gasket, supports, vanes, dampers, links, levers and quadrants etc. as per specifications and drawings. Duct shall be furnish at site in "L" shape or box shape from factory. The rates shall include all materials of the duct and labour for suspension and supporting arrangement for plenums, ducts, complete with fire retardant flexible connection as required and as per specifications. **0.63 MM (24 Gauge)**	Square Metre	260.00		0.00
7680	Supply. Installation, testing and commissioning of **factory fabricated G.I. Sheet metal ducts** with flanges, inbuilt sealant, gasket, supports, vanes, dampers, links, levers and quadrants etc. as per specifications and drawings. Duct shall be furnish at site in "L" shape or box shape from factory. The rates shall include all materials of the duct and labour for suspension and supporting arrangement for plenums, ducts, complete with fire retardant flexible connection as required and as per specifications. **0.80 MM (22 Gauge)**	Square Metre	135.00		0.00
7690	Supply. Installation, testing and commissioning of **factory fabricated G.I. Sheet metal ducts** with flanges, inbuilt sealant, gasket, supports, vanes, dampers, links, levers and quadrants etc. as per specifications and drawings. Duct shall be furnish at site in "L" shape or box shape from factory. The rates shall include all materials of the duct and labour for suspension and supporting arrangement for plenums, ducts, complete with fire retardant flexible connection as required and as per specifications. **1.00 MM (20 Gauge)**	Square Metre	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7700	Supply. Installation, testing and commissioning of **factory fabricated G.I. Sheet metal ducts** with flanges, inbuilt sealant, gasket, supports, vanes, dampers, links, levers and quadrants etc. as per specifications and drawings. Duct shall be furnish at site in "L" shape or box shape from factory. The rates shall include all materials of the duct and labour for suspension and supporting arrangement for plenums, ducts, complete with fire retardant flexible connection as required and as per specifications. **1.25 MM (18 Gauge) Plenum**	Square Metre	10.00		0.00
7710	Supply. Installation, testing and commissioning of insulation on the surface of the duct with duly laminated aluminum foil of mat finish closed cell nitrile rubber (Class 'O') with suitable adhesive, as per specifications and drawings. The Joints shall be sealed with 50mm wide and 3 mm thick self adhesive nitrile rubber tape Insulation. The rates shall include all materials of the insulation and labour works with adhesive, complete as required and specifications. **19 mm**	Square Metre	105.00		0.00
7720	Supply. Installation, testing and commissioning of insulation on the surface of the duct with duly laminated aluminum foil of mat finish closed cell nitrile rubber (Class 'O') with suitable adhesive, as per specifications and drawings. The Joints shall be sealed with 50mm wide and 3 mm thick self adhesive nitrile rubber tape Insulation. The rates shall include all materials of the insulation and labour works with adhesive, complete as required and specifications. **25 mm**	Square Metre	175.00		0.00
7730	Supply and fixing of acoustic lining of supply air duct and plenum with thick Engineered Nitrile Rubber open cell foam having a Noise Reduction Coefficient of 0.55 with Density 140 - 180 Kg/m3 passing Class 1 Fire Performance test as per BS 476 Part 7, Air Erosion test for 10,000 fpm air velocity as per ASTM C 1071-05 and with built-in antimicrobial protection. The material should pass Fungi Resistance Test as per DIN EN ISO 846 Method A and Bacterial Resistance Test as per DIN EN ISO 846 Method C; to be applied using manufacturer's recommended Rubber based Adhesive in a blend of solvents. **20 mm**	Square Metre	105.00		0.00
7740	Supply and fixing of acoustic lining of supply air duct and plenum with thick Engineered Nitrile Rubber open cell foam having a Noise Reduction Coefficient of 0.55 with Density 140 - 180 Kg/m3 passing Class 1 Fire Performance test as per BS 476 Part 7, Air Erosion test for 10,000 fpm air velocity as per ASTM C 1071-05 and with built-in antimicrobial protection. The material should pass Fungi Resistance Test as per DIN EN ISO 846 Method A and Bacterial Resistance Test as per DIN EN ISO 846 Method C; to be applied using manufacturer's recommended Rubber based Adhesive in a blend of solvents. **25 mm**	Square Metre	1.00		0.00
7750	**G.I construction Duct Dampers / Volume Control Damper** - Supply. Installation, testing and commissioning of G.I construction Duct/ Volume control Dampers for Controlling the Airflow in Ducts with neoprene rubber gaskets,nuts, Bolts, Screws Linkages, Flanges etc. as per specification.	Square Metre	4.00		0.00
7760	**Grilles without Dampers** - Supply. Installation, testing and commissioning of powder coated extruded aluminum sections grills as per specification.	Square Metre	7.00		0.00

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7770	**Grilles with Dampers** - Supply. Installation, testing and commissioning of powder coated extruded aluminum section grills with dampers for supply air terminal for air-conditioning as per specification.	Square Metre	6.00		0.00
7780	Supply. Installation, testing and commissioning of powder coated extruded aluminum square diffusers with antismudge ring and removable core. **Supply air with dampers**	Square Metre	1.00		0.00
7790	Supply. Installation, testing and commissioning of powder coated extruded aluminum square diffusers with antismudge ring and removable core. **Return air without damper**	Square Metre	1.00		0.00
7800	**Flexible Duct** - Supply. Installation, testing and commissioning of thermal flexible aluminum duct of following sizes duly supported at regular interval as per site requirement & spefications. **200 mm**	Meter	30.00		0.00
7810	Supply. Installation, testing and commissioning of slot diffusers with/without damper as specified below and as per specification. **3-Slot Diffuser**	Meter	1.00		0.00
7820	Supply. Installation, testing and commissioning of slot diffusers with/without damper as specified below and as per specification. **2-Slot Diffuser**	Meter	1.00		0.00
7830	**Linear Grille** - Supply. Installation, testing and commissioning of powder coated extruded aluminum Linear Grille. **100 mm**	Meter	1.00		0.00
7840	**Linear Grille** - Supply. Installation, testing and commissioning of powder coated extruded aluminum Linear Grille. **150 mm**	Meter	50.00		0.00
7850	**Linear Grille** - Supply. Installation, testing and commissioning of powder coated extruded aluminum Linear Grille. **200 mm**	Meter	15.00		0.00
7860	**Exhaust/Fresh Air Louvers** - Supply. Installation, testing and commissioning of exhaust air/fresh air louvers of powder coated extruded aluminum construction with bird screen, minimum 80 mm deep.	Meter	5.00		0.00
7870	**Fire Damper with Spring and Fusible Link** - Supplying, installation, testing and commissioning of Fusible Link type fire and smoke dampers of 18 gauge GI sheet construction suitable for 120 minute fire rating.	Square Metre	0.50		0.00
7880	**Fire Dampers & Actuator** - Supplying, Fixing, testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications. **Fire Damper**	Square Metre	0.50		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7890	**Fire Dampers & Actuator** - Supplying, Fixing, testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications. **Actuator**	Each	1.00		0.00
7900	**Under Deck Insulation of Exposed Roof** - Providing and Fixing Underdeck Insulation with 50 mm thick with closed cell Nitrile Rubber with prelaminated Aluminum foil on one side having a low stable k value of 0.035 k.cal/hr.m at 10.C and minimum density of 40-55 ± 3 kg/cum.The R-value should be as per ECBC Code. **25mm**	Square Metre	1,650.00		0.00
	Electrical Work				
7910	**ISOLATOR FOR OUTDOOR UNIT** - Supply, Installation, Testing & Commissioning of following Switchgears as an Isolator in IP-65 rated in power coated 16 SWG sheet steel enclosure of suitable for VRV Outdoor Unit. **63A 4P MCCB(16 KA)**	Set	11.00		0.00
	POWER CABLING - Supply, laying, testing and commissioning of power and control cabling as per specification given in the tender. A) Power cabling (XLPE insulated Aluminum / Copper conductor as given below armoured / unarmoured cables of 1.1 KV Grade) including cable end termination with brass compression glands & lugs etc. as per specification. Note:- Power cable with earthing shall be made available near indoor / outdoor units. Only termination into HVAC equipment's (Indoor & Outdoor) shall be done by HVAC Contractor.				
7920	4C x 16 Sq. mm Copper Conductor (Armoured) For VRF Unit	Running Meter	55.00		0.00
7930	4C x 10 Sq. mm Copper Conductor (Armoured) For AHU/Vent	Running Meter	1.00		0.00
7940	4C x 6 Sq. mm Copper Conductor (Armoured) For AHU/Vent	Running Meter	1.00		0.00
7950	4C x 4 Sq. mm Copper Conductor (Armoured) For AHU/Vent	Running Meter	25.00		0.00
	Air Purification System				
7960	Supply, lnstallation, Testing and Commissioning of Plasma Air lonizer, PA 600 series. The model PA 600 is a needle point brush type ionizers & self contained in a potted ABS box with a molded flange and mounting holes. Models accept 12V DC, 24V AC, 120V AC and 230V AC.without the use of an external power supply device. The PA600 is protected with an inline 500mA glass cartridge fuse.	Number	50.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
7970	Supply, lnstallation, Testing and Commissioning of Plasma Air lonizer, PA 100 series. The model PA 100 is a single tube ionizer with tube size (C, D & E). Housing material is of 20 G stainless steel. Model accept 120V AC and 230V AC.without the use of an external power supply device. A five position ion level knob varies the ion output between 50% and 100% for frsh air intake in TFA units.	Number	4.00		0.00
7980	Supply, lnstallation, Testing and Commissioning of Electronic Air Cleaner in the supply air duct of TFA Units as per details below.EAC should be capable of handling up to 1700 2040 CMH for DM1000B. EAC should have Pre filter which collects larger particles of 10 micron and above, lonizing & Collection Cells collects particles as small as 0.01 micron. EAC should have On/Wash/Indicators for performance status. EAC should have BMS dry contacts for connection to Building Management System. EAC should have pressure drop between 0.11" WG-0.25" WG (28Pa to 66Pa).	Number	4.00		0.00
7990	Supply, lnstallation, Testing and Commissioning of Air Quality Monitor IGT2. The Monitor should adopt ABS + PC's environmental friendly material, and its surface is treated with etched workmanship. Monitor should have ability to detect one or more parameters amongst (PM1O, PM2.5, PM1, C02, TVOC, Temperature, Humidity, HCHO-formaldehyde). Monitor Should be able to transmit data by one or more connectivity mediums amongst (Wi-Fi, GPRS-SIM CARD, RS485) and supports online firmware upgrades. Monitor should be able to Communicate with Existing/ New Building Management System and Real time monitoring of data values on Android/ IOS Apps and easy to operate. Monitor must accept 5V DC, 220V AC and 12V DC Powrer Supply. Monitor should be able to send data to Secure Cloud Server for storing historical and real time data and same should be visible on a browser based application (Dashboard). Application should be able to generate reports, alerts, comparison between closest CPCB (Central Pollution Control Board) station data and between configured indoor Monitors data. Measuring range PM10: 0-999ug/m3 PM2.5: 0-999ug/m3 PM1: 0-999ug/m3 Temperature: 0-55 deg.C Humidity: 20%-95% CO2: 0-5000 PPM TVOC: 125-600PPM".	Number	1.00		0.00
	Total Quoted Cost for Sub Head-VI (HAVC Works) including all taxes but excluding GST (Rs.), A6				**0.00**
	SUB HEAD-VII :- FURNITURE WORKS				
	Furniture				

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A	**B**	**C**	**D**	**E**	**F=D*E**
8000	Providing & Placing Bed of size 2000 mm x 900mm The top of the bed is 18 mm thick ISI marked Pre-laminated Board, grade conforming to IS:12406 fixed on 19mm x19mm cross stiffeners frame. The 3 sides of the bed to be in 50x25mm MS Tubes and cladded with 18 mm thick Pre-laminated board , conforming to IS:12406 . The head & Foot rest to be as per drawing in 18mm Pre-laminated board conforming to IS:12406 to achieve shape and design. The bed has four legs made out of 50x25x1.6mm thk MS tubes. Decorative Teak Wood Lipping is provided on all the edges of bed. All Metal Parts is Duly Powder Coated with 45 microns.(Without Matress) . **Single Bed**	Number	20.00		0.00
8010	Providing and Supplying Double Bed having Dimensions: Length (2000mm), Width (1800mm), Height (400mm). The Bed is Openable flap storage type . Bed has Head board and Footboard. Head side Board has 800mm Height and is Aesthetically designed for Elegent Looks.Primary Material: Engineered Panl - PLPB.Color: Natural Wenge. **Double Bed**	Number	26.00		0.00
8020	Providing and Supplying Bed Side Table made of 18mm thick PLPB with PVC Edge Banding. Each Bed Side Table has 2 Nos Pull Out Drawers. The Table Dimension is 450 mm Ht x 400mm D x 400mm Width. Each Bed side Table has Levellers on Underside. **Bed Corner Table :- W450xD450xH400mm**	Number	87.00		0.00
8030	Providing and Supplying HNI Make Study Table having Dimension 1500mm L x 600mm W x 750mm Ht. Worktop is made of 25mmthick PLPB of Grade II, Type II conforming to IS:12823: 1990 and having 2mm thick pvc edge lipping, Understructure is made of 18mm thick PLPB of Grade II, Type II conforming to IS:12823: 1990 and having 2mm thick pvc edge lipping. One no Drawer is buil into the table. 5 Year Warranty. **Table :- W1500xD600xH750mm**	Number	7.00		0.00
8040	Providing and fixing HNI Model Gail . Medium Back Mesh Chair with Lumber Support, Seat Size 510mm W x 510mm D, Back Size 480m W x 520mm Ht . The chair comes with PP arms , Chrome base with 50mm castors . The chair has Push Back Mechanism .The chair comes with Pneumatic Gas Lift of Stroke=95 mm . Seat Height Minimum 480mm from Ground and Maximum 570mm. Overall size of the chair is 620 mm W x 680 mm D x (950 mm- 1050mm) H .The Chair Warranty : 3 Years. **Chair**	Number	48.00		0.00
8050	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **1 Seater Sofa**	Number	40.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
8060	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **2 Seater Sofa**	Number	5.00		0.00
8070	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **3 Seater Sofa**	Number	5.00		0.00
8080	HNI make centre /corner table in position completely made of 25mm thick prelaminated particle. The Table have one pull out drawer and another shelf at lower level. 25mm thick particle board Top with edges sealed with PVC lipping. 25mm thick particle board Gable ends with edges sealed with PVC lipping. 18mm thick particle board Modesty panel with edges sealed with PVC lipping. 0-20mm adjustable levelers. 1 Drawer. **Centre Table :-W900xD500xH400mm**	Number	9.00		0.00
8090	Providing and Supplying Round Table 450mm Ht and 600mm Dia. Table top is 600mm Dia and in 18mm PLPB with 2mm PVC Edge Banding all around. Base and Pole are SS Polished. **Round Table :-W600mm Dia**	Number	35.00		0.00
8100	Providing and fixing HNI Model Gail . Medium Back Mesh Chair with Lumber Support, Seat Size 510mm W x 510mm D, Back Size 480m W x 520mm Ht . The chair comes with PP arms , Chrome base with 50mm castors . The chair has Push Back Mechanism .The chair comes with Pneumatic Gas Lift of Stroke=95 mm . Seat Height Minimum 480mm from Ground and Maximum 570mm. Overall size of the chair is 620 mm W x 680 mm D x (950 mm- 1050mm) H .The Chair Warranty : 3 Years. **Round Table Chair**	Number	8.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
8110	Providing and placing Meeting Room table in "U" Shape . Table Tops – Available in standard modules 1500mm L x 600mm D / 1350mm L x 600mm D / 1200mm L x 600mm D / 1050mm L x 600mm D / 900mm L x 600mm D /750mm L x 600mm D , made of 25mm thick Prelaminated Partlice Board. The Table tops should have metal inserts on underside for modularity. The screw used should be blunt headed and not sharp headed for metal to metal coupling .Understructure – Legs made of 18mm thick Prelaminated Particle Board panels interconnected with 18mm thick pre-laminated modesty panels, with height adjustable levelers to take care of uneven floors. Wire Management – Concealed wire management to take care of basic wiring requirements both horizontally & vertically. Cable Tray is mounted on the inner side of modesty panel for horizontal wire carrying. Vertical wire management is through flexible vertical wire manager at one place . Slots for Mounting Data and Electric Switches and Sockets are provided on Cover Section of Cable Tray. Standard table top height – 750mm. Designed for Flexibility through modular Construction, Provision for easy wire management, Upgradeable / reconfigurable for future needs. Corners are Provided in 25mm thickness . Corners are supported on 63.5mm Painted Metal Pole with Leveller for Height Adjustment. **Conference Table :-W5400x1800xD600xH750mm**	Number	1.00		0.00
8120	**Providing and supplying HNI Model Certo Medium Back Chair** .This is a Medium back chair with Mesh Back with back tilt tension adjustable . The chair has Anchored Lumber Support . The Chair has Nylon base with 50 mm twin wheel castors .Chair comes with 1-D adjustable PP armrests . Seat size is 500 mm W x 520 mm D and the Chair Height 985 mm - 1080 mm . Overall size of the chair is 635mm W x 605 mm D x (985 mm- 1080mm) H . The PU foam used for chair seat is fire retardant . The chair has Pneumatic Gas Lift with Stroke=85 mm . **Conference Chair**	Number	38.00		0.00
8130	Providing and placing HNI BP Ergo "Trent" , **Table 2700mm L x 900mm D x 750mm H (modules of 1350mm x 900mm)**, completely made up of Prelaminated particle board conforming to IS : 12823 Interior Grade with PVC edge banding. Top are with 25mm thk boards . Table top is supported on 18mm thick Gable ends and 18mm thk Modesty panels. exposed edges are in 2mm thk PVC edge banding & sealed edges are in 0.8mm thk PVC edge banding. Separate provision for mounting switches on the wall adjoining the tables shall be made by customer as the tables do not come with switch mounting facility. Tables also have 3 drawer laminate pedestal units . (Total 2 pedestal units) **Training Table :-W2700xD900xH750mm**	Number	1.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
8140	**Providing and supplying HNI Model Quip High Back Chair with head rest** .This is a High back chair with Mesh Back with back tilt tension adjustable . The chair mesh is available in 6 different colours (Green / Ruby / Cinnamon / Magenta / Indigo / Black) with matching or contrast seat fabric according to the choice of the client..The chair has Adjustable Lumber Support . The Chair has Nylon base with 60 mm twin wheel castors .Chair has 1-D adjustable armrests with PU Pads . Seat size is 490 mm W x 435 mm D and the Chair Height 1135mm - 1225mm . Overall size of the chair is 640mm W x 665mm D x (985 mm- 1220mm) H .The chair has Pneumatic Gas Lift with Stroke=85 mm . Chair carries a warranty of 5 years. **Training Table Chair**	Number	3.00		0.00
8150	Non Stackable Chair with desklet and chrome plated Frame with Virgin Polypropylene Shell. Seat is made of Injection molded polypropylene. Seat is attached to the frame by the back attachment and with two steel Pal-nuts . Backrest is also made of Injection molded polypropylene. Attached to the frame with two metal clips. Contains a contoured handle opening at the top for easy lifting and stacking.Chair Frame Construction - Welded construction made primarily of 7/16" diameter steel wire (solid) bent to shape on a CNC wire bender. A 7-gauge steel seat strap, ribbed for added strength, supports the front of the seat and a 7/16" contoured steel rod joins the front legs for strength. Frame Finish - Bright chrome plated finish with duplex (semi-bright) nickel, bright nickel and chrome applied. Nickel provides corrosion resistance. **Training Chair**	Number	30.00		0.00
8160	Stackable Chair . Seat is made of Injection molded polypropylene. Seat is attached to the frame by the back attachment and with two steel Pal-nuts . Backrest is also made of Injection molded polypropylene. Attached to the frame with two metal clips. Contains a contoured handle opening at the top for easy lifting and stacking.Chair Frame Construction - Welded construction made primarily of 7/16" diameter steel wire (solid) bent to shape on a CNC wire bender. A 7-gauge steel seat strap, ribbed for added strength, supports the front of the seat and a 7/16" contoured steel rod joins the front legs for strength. Frame Finish - Bright chrome plated finish with duplex (semi-bright) nickel, bright nickel and chrome applied. Nickel provides corrosion resistance. **Multipurpose Chair**	Number	40.00		0.00
8170	Providing & Fixing of HNI Make Library Table of Size 1500mm L x 750mm D . The 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 powdered coated steel 50mmx 50mm Section. Cross Member are in CRCA steel and the Beam is made of MSof 1.5mm thickness in powder coated finish of 50 microns thickness . The above furniture should be as per specification and sample approved by client. **Dining Table :-W1500xD750xH750mm**	Number	10.00		0.00

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A	**B**	**C**	**D**	**E**	**F=D*E**
8180	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **Dining 2 Seater Sofa**	Number	20.00		0.00
8190	Providing & Fixing of HNI Make Library Table of Size 1500mm L x 750mm D . The 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 powdered coated steel 50mmx 50mm Section. Cross Member are in CRCA steel and the Beam is made of MSof 1.5mm thickness in powder coated finish of 50 microns thickness . The above furniture should be as per specification and sample approved by client. **Cafeteria Table :-W1500xD750xH750mm**	Number	2.00		0.00
8200	Providing and Supplying round meeting table with wire management of size 1050mm dia . The understructure is made of steel plate 500mm dia. The pole connecting base to table top is made of extruded aluminium and has provision for fixing electrical and data switches and sockets on the pole . The top is made of 25mm thick Prelaminated particle board with 2mm PVC lipping . The worktop has metal inserts on the underside for modularity . The understructure is powder coated . **Cafeteria Table :-W1050mm Dia**	Number	7.00		0.00
8210	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **Cafeteria 2 Seater Sofa**	Number	4.00		0.00
8220	**Stackable Chair** . Seat is made of Injection molded polypropylene. Seat is attached to the frame by the back attachment and with two steel Pal-nuts . Backrest is also made of Injection molded polypropylene. Attached to the frame with two metal clips. Contains a contoured handle opening at the top for easy lifting and stacking.Chair Frame Construction - Welded construction made primarily of 7/16" diameter steel wire (solid) bent to shape on a CNC wire bender. A 7-gauge steel seat strap, ribbed for added strength, supports the front of the seat and a 7/16" contoured steel rod joins the front legs for strength. Frame Finish - Bright chrome plated finish with duplex (semi-bright) nickel, bright nickel and chrome applied. Nickel provides corrosion resistance. **Café Round Table Chair**	Number	28.00		0.00

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8230	Providing & Fixing of sofa . the inside frame is made of seasoned wood and has antitermite treatment. The seat and back are made of foam and is finished in leatherite upholestry. The structure is supported on Polished Solid Wood Legs. Leatherite colour and type as per directions of Engineer in Charge. The above furniture should be as per specification and sample approved by client. **2 Seater Sofa (Reception Area)**	Number	6.00		0.00
8240	HNI make centre /corner table in position completely made of 25mm thick prelaminated particle. The Table have one pull out drawer and another shelf at lower level. 25mm thick particle board Top with edges sealed with PVC lipping. 25mm thick particle board Gable ends with edges sealed with PVC lipping. 18mm thick particle board Modesty panel with edges sealed with PVC lipping. 0-20mm adjustable levelers. 1 Drawer. **Centre Table :-W750xD750xH400mm (Reception Area)**	Number	2.00		0.00
8250	HNI make centre /corner table in position completely made of 25mm thick prelaminated particle. The Table have one pull out drawer and another shelf at lower level. 25mm thick particle board Top with edges sealed with PVC lipping. 25mm thick particle board Gable ends with edges sealed with PVC lipping. 18mm thick particle board Modesty panel with edges sealed with PVC lipping. 0-20mm adjustable levelers. 1 Drawer. **Corner Table :-W450xD450xH400mm (Reception Area)**	Number	9.00		0.00
8260	Providing custom made reception table in 25mm thick prelaminated particle board with front unit measuring W4000xD600xH750mm and side unit measuring W1500xD600xH750mm as per design by client. **Reception Table :-W4000xD600xH750mm+W1500xD600xH750mm**	Number	1.00		0.00
8270	**Sofa cum Bed** PRIMARY MATERIAL- Solid Wood & 32 density Supersoft Air Foam. UPHOLSTERY MATERIAL-Fabric. SEATING CAPACITY-3 seater Made from Solid wood. All wood products go through an intense 3-step treatment for any termites; borers and pests. The wood used in the furniture is perfectly seasoned for optimum moisture content; to reduce the possibility of seasonal expansion or contraction of the products. Durable for long term use and held up by Strong legs that last a lifetime.	Number	10.00		0.00
	Kitchen Equipments				

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8280	**Cold Display Counter** **60"x27"x48"** **Temp. Range +5° to 15° C** Structure will be made of 32X32X5mm M.S angle duly painted with rust proof paint. Unique feature for stunning display. Side covering will be made of 20SWG. S.S. Sheet, Inner tank will be 22SWG. Kirloskar / tecumseh compressor unit, condensing coil, light indicator, 75mm thick, high density of 42 ± 03% polyol/isocyanides insulated. Heavy-duty Stainless steel 8 mm dia pipe adjustable legs at the bottom. Curved glass display on front. Sliding door backside. A granite top of 7" width is provided on the top of the unit.	Number	1.00		0.00
8290	**Hot Display Counter for snacks** **48"x27"x48"** Structure will be made of 32X32X5mm M.S angle duly painted with rust proof paint. Unique feature for stunning display. Side covering will be made of 20SWG. S.S. Sheet, Inner tank will be 22SWG. The unit is supported with 04 nos of 4" rexnold fan along with air-coiled type element for the proper rotatation of hot air. Heavy-duty adjustable legs at the bottom. Curved glass display on front. Sliding door backside. A granite top of 7" width is provided on the top of the unit.	Number	1.00		0.00
8300	**Bain Marie Front Side Glass & Granite Top** **72"x27"x34"+6"** GN Pans 1/1x4" depth= 05 pcs. With lid for keeping vegetables, pulses, rice etc. Top of the Bain Marie will be made of 16SWG. S.S. Sheet. Side covering will be made of 20 SWG. S.S. Sheet. Tubular legs 38 mm S.S. round pipe with adjustable bullet feet. Tank will be made of 18SWG. S.S. Sheet, cladding with 36° high density glass wool, With two S.S. Heating element of 1.5 KW. for quick response controlled by thermostat, light indicator. A granite top of 7" width is provided on the top of the unit.	Number	1.00		0.00
8310	**S.S EXHAUST HOOD (WITHOUT HANGING & DUCTING) for two burner** **78"X30"X24"** Made of 18 SWG S.S. frame outside and V Baffles of 22 S.S. section measuring 20" x 20"x 2" full compliment, an angle of 45 degree in full length with bottom of filters set in continuous channels, grease gutters on all Sides.	Number	2.00		0.00
8320	**M.S CYLINDER BANK** **120X36"X42"** **(ACCESSORIES ARE NOT INCLUDED)** Totally constructed in MS angle base of 40x40x5 mm supported with 12mm square wrought iron bars. Front doors are provided along with the locking arrangements made up of 18 SWG CR sheet is duly primered and painted to prevent from rust etc.	Number	1.00		0.00

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8330	**BULK COOKER / BOILER for making rice/dal/idly** **CAP. – 160 LTRS.** Outer Cladding will be made of 16 SWG S.S Sheet. Inner food Cooking pan will be made in 14 SWG. S.S Sheet with round edges. Tilting arrangement with reverse locking and installation wall made of 18 SWG. S.S Sheet to be provided between walls. 16 SWG. Thick S.S Sheet. With dome shape spring control lid. Lid handle provided with insulated knob. Provided with deck mounted goose neck type faucet over food tank. 60mm thick non sag glass wool installation in outer wall. The unit will be L.P.G. operated, supported by a heavy duty G-11 burner & a pilot burner controlled by 2 no's of non return valve. Unit structure will be made of S.S tubular square pipe 2" with provision for floor grouting.	Number	1.00		0.00
8340	**FOUR DOOR REFRIGERATOR** **48"X27"X80"** Structure will be made of MS. Angle 32X32X5mm duly painted with rust proof paint. Side Covering will be made of 20 SWG. S.S Sheet., Tank will be made of 22 SWG. S.S. Sheet. Self-closing Four doors made up of 18 SWG S.S. Sheet doors. are provided with adjustable shelf. Kirloskar / tecumseh compressor unit, condensing coil, light indicator, 75mm thick, high density of 42 ± 03% polyol/isocyanides insulated.	Number	1.00		0.00
8350	**TWO BURNER RANGE** **48"X24"X34"** Top of the two burner range will be made of 16Swg S.S. Sheet, Side covering with be 20Swg. S.S. Sheet. Legs will be made of 1.5" S.S. Round Pipe with adjustable bullet. Heavy-duty pan support size 16"x16" on the top. High pressure burner T 35 fitted with N.C.V., Pigtail with one Pilot burner. Structure will be made of 32X32X5mm MS angle duly painted with rust proof paint.	Number	2.00		0.00
8360	**S.S SINK WITH TABLE FOR BULK COOKER & TWO BURNER RANGE 72"X30"X34"+6" S.S SINK WITH TABLE for Bulk Cooker & Two Burner Range** **72"X30"X34"+6"** Structure will be made of MS. Angle 32X32X5mm duly painted with rust proof paint. Top of the table will be made of 16SWG. S.S. Sheet, attach with a sink one left hand side made of 18 SWG. Size: 16"x16"x10" duly welded with argon 1.2mm. Will have Four Legs made of 1.5" S.S. square pipe with adjustable bullet feet.	Number	2.00		0.00
8370	**SOILED DISH LANDING TABLE WITH GARBAGE CHUTE** **60"X24"X34"** Structure will be made of 32X32X5mm M.S angle duly painted with rust proof paint. Top of the dish-landing table will be made of 16 SWG. S.S. Sheet, provided garbage chute, Tubular legs 1.5" S.S. round pipe with adjustable bullet feet. Three side cross bracing made up of dia S.S. pipe.	Number	1.00		0.00

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8380	**STORAGE RACK** **36"X18"X72"** Structure of the storage rack will be made of 1.25" S.S. Square pipe with adjustable bullet feet. Will have four shelves made of 18 SWG. S.S. Sheet.	Number	1.00		0.00
8390	**PICK UP COUNTER** **108"X30"X34"+12"** Structure will be made of 35 x 35 x 5 mm M.S angle duly painted with rust proof paint. Top of the working table will be made of 16SWG S.S. Sheet. With one under shelf made of 18SWG S.S. Sheet. One over head shelf will be made of 18 SWG S.S Sheet, provided with 1 KW air element to keep dishes warm. Tubular legs made of 1.5" S.S. Square pipe with adjustable bullet feet. Three side covering of the unit will be made of 20 SWG S.S. sheet.	Number	1.00		0.00
8400	**THREE SINK UNIT for utensil washing** **72"X24"X34"+6"** Three-sink unit will have the top of 16SWG. S.S. Sheet, Three sides covering with 20SWg. S.S. Sheet. Will have Three Sink made of 18SWG. S.S. Sheet Size: 16"x16"x10" duly welded with argon 1.2mm Will have Four Legs made of 1.5" S.S. round pipe with adjustable bullet feet. Cross bracing 1" S.S. round pipe.	Number	1.00		0.00
8410	**LPG GAS PIPE LINE** **(Approx. 100 running feet)** (Actual measurement will be measured according to site dimensions after completion of work.)	Running Feet	100.00		0.00
8420	**G.I. DUCTING (Sheet Make :- Jindal/Tata/Sail etc.)** **1000 Sq.ft.** (Actual measurement will be measured according to site dimensions after completion of work.)	Square Feet	1,000.00		0.00
8430	**EXHAUST UNIT** 10000 CFM	Number	1.00		0.00
8440	**AIRWASHER** 10000 CFM	Number	1.00		0.00
	Recreational & Gym Equipments				

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8450	**TREADMILL** MOTOR - Powerful 2 HP Continuous AC Motor | MAXIMUM USER WEIGHT: 110 kg | RUNNING AREA: Large 1240X420 (mm)/48X16.5 (inch) running surface for serious runners | SPEED: 0.8-14.8 km/hr INCLINATION - Increase workout intensity using 3 Level Manual Incline to simulate walking / running uphill and burn more calories FEATURES - Hi-Fi speaker to play music from iPhone/MP3 player using AUX and USB cable, Wheels for easy transportation. The pulse sensor enables to monitor heart rate Equipped with Led Dial Instrument Display at the front allowing you to easily monitor your time, calories, distance, speed and heart rate. The walking and running machine Includes entertainment device shelf, a USB port and two cup holders FOLDABLE - The machine can folded in upright position when not in use. Hydraulic assist system lets you easily lift and lower the treadmill deck.	Number	2.00		0.00
8460	**CYCLE** Sturdy Flywheel- The 49LB flywheel is designed to maintain momentum smoothly as you cycle on the cardio machine. Heavy flywheels support speed, stability, and consistency across your workout. Foam Grip Handle with heart rate- FitPro Spin Bike comes with heart rate sensor to help you measure your heart rate during a heavy workout session. The Handle grip is smooth and made with Foam for easy grip. Belt driven and noise reduction cover- High quality and good toughness belt driven, superior rubber and polyurethane core wire. Streamline wind speed principle. LCD monitor-The LCD monitor can track your speed,distance,time,calories,distance and heart rate. It can help you understand your exercise situation. Fitting & Adjustments- Tailor your riding experience to your individual height. Use the four-way adjustable seat that can be fitted to your individual leg length. Resistance- Increase resistance or come to a complete stop in a flash with the friction resistance knob. Use the resistance knob to increase and decrease resistance applied to the flywheel. Maximum User Weight- 120 kgs	Number	2.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8470	**TABLE TENNIS** Foldable, 19 to 22 mm chipboard table top, with adjustable feet and 4 brakes small wheels, ITTF certified, suitable for indoor. The model is equipped with the Lock Click System (LCS) safety system with adjustable net height and tension. The table should have leg levellers. Weight: 90kg Box dimensions: 1.63 x 1.475 x 0.17 m Table with 1 tabletop side folded: L 1.52 m x H 1.725 m x W 50 cm with legs Table folded with tabletops side by side: L 1.52 m x H 1.725 m x W 60 cm with legs The model should have 2 years warranty.	Number	1.00		0.00
8480	**BILLIARDS TABLE** Size: 8FT X 4 FT, 21 Balls Material: Made by Shesham wood legs Malaysian saal wood cushion german seasoned wood frame & without joints cushion and legs for long life durability nd rebounding speed extra for life time Color Option- Black , Brown, Cherry, Mahagani, Gold, Silver you can choose any color in any model. Single piece cushion & legs.	Number	1.00		0.00
	Total Quoted Cost for Sub Head-VII (Furniture Works) including all taxes but excluding GST (Rs.), A7				**0.00**
	SUB HEAD-VIII :- SIGNAGE WORKS				
8490	Supplying & fixing of retro reflective sign board of size 1800 mm x 1200 mm. The board made of High intensity prismatic grade type IV retro reflective sheeting of 3M /Avery Denison or equivalent make approved by I.R.C. / M.O.S.T. with message and graphics to be overlay film of same make duly plotter cut, letters written (both side) in white colour, to be pasted on 3mm thick ACP sheet of make Alstone / Alstrong / Eurobond / Alucobond or equivalent. Frame made of 38mm dia pipe & 2nos. 63mm diavertical posts, 3 Mtr. high, all made of 304 series (Jindal or equivalent) stainless steel. Pipe fixed on ground including necessary excavation and sign board fixed with in ground in 600 mm depth with all excavation & cement aggregate concrete 1 : 2 : 4 {1 cement : 2 coarse sand : 4 graded stone 20 mm nominal size) as per direction of Unit Incharge.	Each	1.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8500	Supplying & fixing of retro reflective sign board of size 900 mm x 600 mm. The board made of High intensity prismatic grade type IV retro reflective sheeting of 3M /Avery Denison or equivalent make approved by I.R.C. / M.O.S.T. with message and graphics to be overlay film of same make duly plotter cut, letters written (both side) in white colour, to be pasted on 3mm thick ACP sheet of make Alstone / Alstrong / Eurobond / Alucobond or equivalent. Frame made of 38mm dia pipe & 2nos. 63mm diavertical posts, 1.80 Mtr. high, all made of 304 series (Jindal or equivalent) stainless steel. The pipe shall be standing on hard concrete surface with the help of SS holdfast/ Hilti or equallent flush anchor (Fastners) of as per reuired size and numbers and thickness and nut bolts on 02 Nos.5 mm thick 200mm x 200 mm size SS plate welded with 63mm dia SS pipe as per direction of Unit Incharge.	Each	2.00		0.00
8510	Supplying & fixing of retro reflective sign plates of required size. The plate made of High intensity prismatic grade type IV retro reflective sheeting of 3M / Avery Denison or equivalent make approved by I.R.C. / M.O.S.T. with message and graphics to be overlay film/High intensity prismatic grade type IV retro reflective sheeting of 3M / Avery Denison or equivalent make approved by I.R.C. / M.O.S.T Reflective tape of same make duly plotter cut, of approved color, letters (both side) in white colour, to be pasted on 3mm thick ACP sheet of make Alstone / Alstrong / Eurobond / Alucobond or equivalent etc. as per drawings. The sign boards shall fixeed on wall/ roof duly fixed with rawls plugs stainless steel srew/ double side tape 3M make/ SS chain of required size of required nos of holes, wherever required complete as per direction of Unit Incharge	Square Feet	100.00		0.00
8520	Supplying & fixing of retro reflective sign plates of required size. The plate made of High intensity prismatic grade type IV retro reflective sheeting of 3M / Avery Denison or equivalent make approved by I.R.C. / M.O.S.T. with message and graphics to be overlay film/High intensity prismatic grade type IV retro reflective sheeting of 3M / Avery Denison or equivalent make approved by I.R.C. / M.O.S.T Reflective tape of same make duly plotter cut, of approved color, letters (single side) in white colour, to be pasted on 3mm thick ACP sheet of make Alstone / Alstrong / Eurobond / Alucobond or equivalent etc. as per drawings. The sign boards shall fixeed on wall/ roof duly fixed with rawls plugs stainless steel srew/ double side tape 3M make/ SS chain of required size of required nos of holes, wherever required complete as per direction of Unit Incharge	Square Feet	300.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8530	Supply and fixing of 20 gauge Stainless Steel brass coating plates with water jet cutting of grade 304 etching (engraved)signage plate of required size and letters duly bordred . Engraved portion painted of as per required colour/ approved colour (DUCO) of approved brand and filling with required matt/ mirror finish polish on base and border with shining polish of required shade and colour and duly fixed with required nos of rawls plugs stainless steel srew/ double side tape of 3M make/ nut bolt/ spacer required nos of holes, wherever required complete as per direction of Unit Incharge. (make Jindal or Equivalent)	Square Inch	10,000.00		0.00
8540	Supply and fixing of Powder coated Aluminum Panel for directory of size 900mm x 750mm with partition of required Nos supported on aluminum channel 2 nos backiside with ACP sheet .Matter will Be digital print, matter covered with transprent polycarbonate sheet 0.5 mm wherever required completeand duly fixed with required nos of rawls plugs stainless steel srew/ spacer required nos of holes, wherever required complete as per direction of Unit Incharge	Number	2.00		0.00
8550	Supply and fixing of Aluminium Silver powder coated signage of reqired size complete with message. Matter will be digital print written single sides, matter covered with transparent polycarbonate sheet 0.5mm. and duly fixed with required nos of rawls plugs stainless steel srew/ double side tape of 3M make/ screw required nos of holes, wherever required complete as per direction of Unit Incharge	Square Inch	2,000.00		0.00
8560	Supply and fixing of Amuminium Silver powder coated signage two plates (vertical type) of reqired size complete with message. Matter will be digital print written both sides, matter covered with transparent polycarbonate sheet 0.5mm. and duly fixed with required nos of rawls plugs stainless steel srew/ double side tape of 3M make/ screw required nos of holes, wherever required complete as per direction of Unit Incharge	Square Inch	1,000.00		0.00
8570	Providing and fixing 800 mm dia Convex Mirror made of PC front and ABS/metal back supported on Nut & Bolts suppuroted on 75 mm dia 1 No post 1.50 long The pipe shall be standing on hard concrete surface with the help of SS holdfast/ Hilti or equallent flush anchor (Fastners) of as per reuired size and numbers and thickness and nut bolts on 01 Nos. 5 mm thick 200mm x 200 mm size SS plate welded with 75mm dia SS pipe as per direction of Unit Incharge.	Number	2.00		0.00
8580	Supplying & fixing of flexible polythene spring post pedestal 200mm dia and hight 600 mm and to be bolts size 8mm dia 11cm long with two rounds of special soft high reflective tape . For spring post fixing firstly clean the surface, grout as per requirment & filled with epoxy & nut & bolts. as per direction of Unit Incharge.	Number	4.00		0.00
8590	Providing & fixing ABS Interlocking chain of required size as per direction of Unit Incharge.	Running Feet	50.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8600	Provinding/Laying 2.5 mm thick road marking strips (Retro reflecting) Road marking paints with applied thermo plastic compound with reflectorized glass beads on bituminous surface, providing and laying of hot applied thermo plastic compound 2.5 mm thick including reflectorising glass beads @ 250gm per sq. mtr. area thickness of 2.5 mm is exclusive of surface applied glass beats as per IRC – 35. The finished surface should be level, uniform and free from streaks and holes as per relevant clauses of section 800 in addition where arrows or letters are to be provided thermo plastic compound may be hand sprayed. The colour of the compound shall be white or yellow (IS Colour No. 356) as specified in the drawings or directed by the Unit Incharge. 15cm widths on bituminous surface/ Concreete, complete all as specified.	Square Metre	100.00		0.00
8610	Supply and installation of Raised pavement marker(RPM) with polycarbonate lens electronically welded with the RPM body. Marker shall be scratch proof and abrasion resistant microprismatic polycarbonate lens with polycarbonate Reflective panels with dual prismatic cubes capable of providing total internal reflection. Dimensions: Dimensions of the marker is Height: 15.88 ,Width: 101.6 ,Length: 89.2 .The marker conforms to ASTM D4280 and is in accordance with MOSRTH Circular Ref No. RW/NH 33023/10/97-DO III Dated 11th june 1997. Markers shall be fixed with adhesives and no nails shall be used to affix the marker and shall be marked with manufacturers name, complete all as specified. Make 3M/ Avery Dennison C-8 Series/Simsonite or equivalent.	Number	50.00		0.00
8620	Providing and fixing rubberised car parking stopper of size 500mm 80 mm 100mm. clean the surface, grout as per requirment & filled with epoxy & nut & bolts. as per direction of Unit Incharge.	Number	6.00		0.00
8630	Providing & fixing of emergency sign boards single side of required size made of Photo luminescent film having glow power of 4 hours with message and graphics to be screen printing / vinyl cut film of 3M / Avery Denison / LG / Oracle or equivalent make to be pasted on 3mm thick Sun Board sheet all complete and duly fixed with required numbers of rawls plugs stainless steel srew/ double side tape of 3M make required nos of holes, wherever required complete as per direction of Unit Incharge	Square Inch	8,000.00		0.00
8640	Supply & Fixing Key ring holder stand of size 900mm x 600mm. Front door covered with transparent acyrlic shhet and locking arrangment. Fixed with required numbers of rawls plugs stainless steel srew as per direction of Unit Incharge.	Each	4.00		0.00
8650	Supplying and fixing of 18 gauge Stainless Steel Key Rings 1.245 mm thick (18 gauge) Stainless Steel plates of grade 304 etching (engraved)signage plate of Size 50mm x 38mm of and letters duly bordred as per sample approved and all as per sample. Engraved portion painted of as per required colour/ approved colour (DUCO) of approved brand written bth sides and filling with required matt/ mirror finish polish on base and border with shining polish of required shade and colour as per direction of Unit Incharge	Number	50.00		0.00

	Name of Bidder:				
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8660	Supply & placing of Stainless Steel 304 series Dustbin of size 300 x 175 as per direction of Unit Incharge.	Number	50.00		0.00
8670	Supply & placing of Stainless Steel 304 series Dustbin with foot operated of size 356 mm x 584 mm with plastic bucket as per direction of Unit Incharge.	Number	10.00		0.00
8680	Supply & place Road side bin moon (90 LTR PLASTIC) with SS stand as per direction of Unit Incharge. (Make Sheetal / Sintex or equivalent)	Number	6.00		0.00
8690	Supply and fixing of Solar Studs of width 122.5mm, length 132.5 mm height with stump 55.00 mm, stump dia 26.00 mm electronically operated with solar cell LEDS pcs. Battery Nl-cd 1400 AE Main Frame Aluminium, Bottom Frame Aluminium, Reflective.The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Unit Incharge. For Solar stud fixing firstly clean the surface, grout as per requirment & filled with epoxy. Make 3M/ Avery Denson/ Dark eye/ or equivalent.	Number	15.00		0.00
8700	Supply & Fixing yellow and Black Plastic rumble strip made of ABS Material. welded with ABS Plate through ultrasonic welding process Size of the srumble strip is length 500 mm, width 75 mm and 10 MM height at the center.Fixing with required numbers of nails & Filled with epoxy as per direction of Unit Incharge.	Running Meter	20.00		0.00
8710	Provinding and fixing transparent logos/ Letters made out of etching tape 3M sparkle type on the lean glass surface with plain water, scraping glass before fixing film with blade, spray soap solution on glass squeeze excess water and air bubbles. All as directed of approved shape and sizes etc fixed with of required size as required as per direction of Unit Incharge. Make 3M/ Avery Denson or equivalent	Square Metre	30.00		0.00
8720	Supply & Fixing signages for exit of size 375mm x 200mm x 8mm in acrylic sheet LED light with battary backup	Each	10.00		0.00
8730	Supply & fixing of signboard made out of 3mm thick sun board with face fully covered with digital print of approved shade and make. The sign board should be fixing on wall,fixed with four rawls plugs stainless steel srew/ double side tape of 3M make required nos of holes, wherever required complete as per direction of Unit Incharge.	Square Feet	150.00		0.00
	Total Quoted Cost for Sub Head-VIII (Signage Works) including all taxes but excluding GST (Rs.), A8				**0.00**
	SUB HEAD-IX :- ART WORKS				
	Supply & Installation of following Art Work with approved frame & Murals, complete in all respects as directed by EIC				
8740	Tree of Life Painting with Frame 55 x 33	Each	1.00		0.00
8750	Madhubani Painting with Frame 27 x 35	Each	30.00		0.00
8760	Kalighat Painting with Frame 27 x 19	Each	2.00		0.00
8770	Kanta Painting with Frame 61 x 27	Each	1.00		0.00
8780	Madhubani Painting with Frame 8 x 5	Each	1.00		0.00

Name of Bidder:					
Item No.	**Description of Services**	**Unit of Measurement**	**Estimated Quantity**	**Unit Rate (Rs.) including all taxes but excluding GST (To be quoted by the Bidders)**	**Total Amount including all taxes but excluding GST (Rs.)**
A	**B**	**C**	**D**	**E**	**F=D*E**
8790	Tree of Life Gujrat School Painting with Frame 30 x 41	Each	2.00		0.00
8800	Pattachitra Orissa School Painting with Frame 39 x 45	Each	1.00		0.00
8810	Venkatagiri Painting with Frame 70 x 47	Each	1.00		0.00
8820	Mirror Dhokra Work	Each	3.00		0.00
8830	Dhokra Panel 5 x 18	Each	1.00		0.00
8840	Dhokra Mask 88 inch	Each	1.00		0.00
8850	Tribal Figure Dhokra 32 inch	Each	1.00		0.00
8860	Dhokra Small Painting 14 x 15	Each	10.00		0.00
8870	Deer Dhokra 37 inch	Each	1.00		0.00
8880	Murga Dhokra 41 inch	Each	1.00		0.00
8890	Boat with Fisherman Dhokra	Each	1.00		0.00
8900	Marble Figure Black Buddha 26 inch	Each	1.00		0.00
8910	Wooden Ashoka Pillar	Each	3.00		0.00
8920	Wooden Carved pen Stand	Each	10.00		0.00
8930	Antique Brass Planter 16 inch	Each	5.00		0.00
8940	Wooden Tissue Box	Each	10.00		0.00
8950	Wooden Tray Big	Each	3.00		0.00
8960	Brass Buddha 24 inch	Each	1.00		0.00
8970	Brass Hanging Bells	Each	5.00		0.00
8980	Painted Vase 34 inch	Each	5.00		0.00
8990	Elephant Dhokra 16 inch	Each	3.00		0.00
	Total Quoted Cost for Sub Head-IX (Art Works) including all taxes but excluding GST (Rs.), A9				**0.00**
	Total Quoted Contract Cost including all taxes but excluding GST (Rs.), I = A1+A2+A3+A4+A5+A6+A7+A8+A9				**0.00**
	GST Amount Payable Extra on Total Quoted Contract Cost (Rs.) in 'I' above, II				
	Total Quoted Contract Cost including all taxes & GST (Rs.), III = I+II				**0.00**
	GST Rates Considered By Bidder In Estimated Contract Price			**IGST :**	
				CGST :	
				SGST :	
				SAC Code:	

Note: Comparison of techno-commercially acceptable offers will be done on Total quoted contract cost including all taxes & GST, i.e. '**III**' in above

(END OF SECTION–IX)

CONFIDENTIALITY AND NON- DISCLOSURE AGREEMENT

This confidentiality and non-disclosure agreement is executed on..... ' 20__ between

M/s.....

AND

OIL INDIA LIMITED (hereinafter referred to as OIL), a Government of India Enterprise having its Corporate Office at Plot No. 19, Sector 16A, Noida, UP - 201301, India which expression, unless the context otherwise requires, shall include its successors and assigns acting through its duly authorized representatives;

WHEREAS, OIL and M/s _____ have entered into a contract for "**CONSTRUCTION OF TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT**". M/s _____ will have access to certain proprietary and confidential information in due course of time as and when required to be used during the course of time for execution of jobs to be carried out under the project, hence the confidentiality agreement is executed on the terms and condition set henceforth.

As used herein "Confidential Information" means all plans, specifications, manuals, numerical results, general conclusions, design reports, studies, cost estimates, and all other materials, information and data developed by, or in the possession a party and which is directly or indirectly made available to the other party in any form or which is directly or indirectly made available to the other party during the performance of the services. Accordingly, each party is willing to allow the other party to have access to such information, under the following terms and conditions:

1. Each party agrees that it will maintain in confidence and will not disclose to any third party, without the other party's prior written permission, any confidential information that is disclosed to it directly or indirectly. Each party further agrees that it will limit access to Confidential Information to only those employees of their company who actually need to know such Confidential Information for carrying out the above indicated purpose of this agreement.

2. Each party agrees that:
   a) It will not use any of their Confidential Information for any purpose other than as necessary to perform its services;
   b) It will promptly return to the other party all documents provided by such party which contain Confidential Information (including all copies thereof) and
   c) Based on the study result of this dataset, no technical paper or presentation will be published/ shared in any forum/ technical seminar without prior consent of OIL. Upon written request, except that each party shall be entitled to retain one copy of such information for archival purposes only.

3. Each party agrees that it will inform each of its employees who receives or has access to any Confidential Information of the provisions of this Agreement.

4. The foregoing obligations of each party shall not apply to:
   a) Information which, at the time of disclosure, is in the public domain as evidenced by printed publication or otherwise;
   b) Information which, after disclosure, becomes part of the public domain by publication or otherwise through no act or failure to act of each party;
   c) Information which each party can show was in its possession prior to the time of disclosure and was not acquired directly or indirectly from the other party;

Or

d) Information which is received by each party subsequent to the time of disclosure from a third party who has the right to disclose such information and who did not acquire the same directly or indirectly from each party.

Disclosures made to each party in connection with this Agreement shall not be deemed to be within the foregoing exceptions merely because they are embraced by more general information in the public domain or in the possession of each party.

5. All Confidential Information disclosed by a party pursuant to or in connection with this Agreement shall at all times remain the property of that party.

6. This Agreement shall be construed and the rights of the parties shall be determined in accordance with the laws of India.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in duplicate by their duly authorized representatives, effective as of 20__.

M/s.....

By: _____ Witness: _____

Title: _____ Title: _____

Date: _____ Date: _____

OIL INDIA LIMITED

By: _____ Witness: _____

Title: _____ Title: _____

Date: _____ Date: _____

(END OF SECTION–X)

PROFORMA-I

FORMAT OF UNDERTAKING BY BIDDERS TOWARDS SUBMISSION OF AUTHENTIC INFORMATION/DOCUMENTS

(To be typed on the letter head of the bidder)

Ref. No_____ Date _____

Sub: Undertaking of authenticity of information/documents submitted
Ref: Your tender No. CLI9636P22 Dated 14.02.2022

To,
The GM (C&P)
Oil India Limited
Plot No. 19, Sector-16 A Noida

Sir,

With reference to our quotation against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, OIL has right to reject our bid at any stage including forfeiture of our EMD and/or PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,

For (*type name of the firm here*)

Signature of Authorised Signatory

Name :

Designation :

Phone No.

Place :

Date :

(Affix Seal of the Organization here, if applicable)

(END OF PROFORMA-I)

PROFORMA-II

BID FORM

To
M/s. Oil India Limited,
Plot No. 19, Sector-16 A, NOIDA

Sub: TENDER No. CLI9636P22

Gentlemen,

Having examined the General Terms & Conditions, Special Conditions of Contract, Scope of Work & Other Conditions of Contract and Schedule of Rates including all attachments thereto, the receipt of which is hereby duly acknowledged, we the undersigned offer to perform the work/services in conformity with the said conditions of Contract and Terms of Reference for the sum of _____ **"NOT TO BE QUOTED HERE WHILE SUBMITTING ALONG WITH UN-PRICED TECHNO-COMMERCIAL (TECHNICAL) BID"** (*Total Bid Amount in words and figures*) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to commence the work as per the terms & conditions set out in the subject tender.

We agree to abide by this Bid for a period of 120 days from the original date fixed for Technical Bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof in your notification of award shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this _____ day of _____ 2022.

Authorised Person's Signature: _____

Name: _____

Designation: _____

Seal of the Bidder:

(END OF PROFORMA-II)

PROFORMA-III

FORMAT FOR LINE OF CREDIT FROM SCHEDULED COMMERCIAL BANK

CONFIRMATION FROM THE BANK FOR THE AVAILABILITY OF UNUTILIZED LINE OF CREDIT

(To be submitted on Issuing Bank's letter head)

We ..... (Name of bank) having our registered office at ..... hereby confirm the company M/s ..... (Bidder) having registered office at ..... is having account with our bank. Presently the credit limits of the company are as under:

Item	INR
Sanctioned Line of Credit	
Utilized Line of Credit	
Balance Line of Credit	

We further confirm that we are scheduled commercial bank having Net Worth more than INR 100 Crore.

Authorized Signatory of Bank

(END OF PROFORMA-III)

PROFORMA-IV

DECLARATION BY BIDDER REGARDING CONCURRENT COMMITMENT

I/We ---------- age------- son of---------- ------
do hereby solemnly affirm and declare as follows for and on behalf of the Firm

LIST OF EXISTING COMMITMENT AND ONGOING WORKS

Sr. No.	Name of Works	Client Name & Address	Work Order Value (INR)	Work executed till date of submission of bid. Work done value. (INR)	Assessed value of commitments to be executed in next 12 months from the date of expiry of the Original Bid validity date. (INR)
(1)	(2)	(3)	(4)	(5)	(6)
	Total of Column No (6)				
	It is certified that the above particulars furnished are true and correct. If any information given is found to be misleading at the time of evaluation of the tender or at a later date, OIL will have the authority to take necessary action as per provision of the Contract and as per laid down procedure of the Company (OIL).				

Note:-

i) This declaration shall be made on letter head of Chartered Accountant duly Signed & Sealed and Stamp by the Bidder (AUTHORISED SIGNATORY HAVING POWER OF ATTORNEY) & to be Notarised.

ii) The Concurrent Financial Commitment shall have to be for all Segments of Company's business operation, which contribute to the Turnover of the Company.

Note: Accuracy level of assessed commitments as per total of column 6 above should be within +/- 10%

(END OF PROFORMA-IV)

PROFORMA-V

FORMAT OF UNDERTAKING BY BIDDERS FOR DECLARING PERCENTAGE OF LOCAL CONTENT

(To be submitted on Bidder's letter head)

To,
M/s. Oil India Limited,
Plot No. 19, Sector-16 A, NOIDA

Sub: PURCHASE PREFERENCE POLICY (LINKED WITH LOCAL CONTENT) (PP-LC):

Dear Madam / Sir,

I/We _____ (Name of the bidder) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. _____ % as per Clause No. 2.5 & 4.4 (b) of the policy vide Letter No. FP20013/2/2017-FP-PNG dated 17th November, 2020 of MoPNG to bid against Tender No. **CLI9636P22**.

The percentage of local content in the bid is _____%.

Yours faithfully,

For (type name of the firm here)

Signature of Authorized Signatory

Name:

Designation:

Phone No.

Place:

Date:

(Affix Seal of the Organization here)

(END OF PROFORMA-V)

PROFORMA-VI

FORMAT FOR CHARTERED ACCOUNTANT/STATUTORY AUDITOR CERTIFICATE FOR FINANCIAL CAPABILITY OF THE BIDDER

(To be issued by practising Chartered Accountants' / Statutory Auditor's firm on their letter head)

Following financial data has been extracted from Audited Financial Statement of M/s..... (Name of the bidder) and certify the following:

A. ANNUAL TURNOVER OF LAST 3 AUDITED FINANCIAL YEARS

Year	Amount (Currency)
Year 1:	
Year 2:	
Year 3:	

B. FINANCIAL DATA FOR LAST AUDITED FINANCIAL YEAR

Description	Financial Year
	Amount (Currency)
1. Current Assets	
2. Current Liabilities	
3. Working Capital	
4. Net Worth	
5. Debt – Equity Ratio	
6. Bid Capacity	

Name of Audit Firm:
Firm Registration Number:
Date:

[Signature of Chartered Accountant]
Name:
Seal:
Membership no.
UDIN:_____

1. Bid Capacity should be strictly as per BEC-BRC Clause 2.2.4 and the Commitments for the next 12 months from the date of expiry of bid validity should be considered as per the declaration made in **Proforma-IV**. This certificate is to be submitted on the letter head of Chartered Accountant.

2. Any Financial Data except for the commitments as referred in BEC-BRC Clause 2.2.4 should be obtained from the Audited Financial Statements.

(END OF PROFORMA-VI)

PROFORMA-VII

PROFORMA FOR UNDERTAKING / AFFIDAVIT IN TERMS OF NOTE-II UNDER CLAUSE 2.3 OF BEC/BRC OF TENDER NO. CLI9636P22

I _____ the authorized signatory(s) of _____ (Company or Firm name with address) do hereby solemnly affirm and declare/ undertake as under:

The balance sheet/Financial Statements for the financial year _____ have actually not been audited as on the Original Bid Closing Date.

Yours faithfully,

For (type name of the firm here)

Signature of Authorized Signatory

Name:

Designation:

Phone No.

Place:

Date:

(Affix Seal of the Organization here, if applicable)

Note: Bidders to take note that this certificate is to be issued only considering the time required for preparation of Financial Statements i.e. if the last date of preceding financial/accounting year falls within the preceding six months reckoned from the Original Bid Closing Date.

(END OF PROFORMA-VII)

PROFORMA-VIII

PROFORMA FOR CERTIFICATE FROM THIRD PARTY INSPECTION AGENCY

(to be submitted on official letter head of the Third Party Inspection Agency)

TO
M/s OIL INDIA LIMITED
Plot No. 19, Sector-16A
Noida, UP - 21301

Madam / Sir,

SUB: OIL's IFB No. CLI9636P22

M/s _____ having registered office at _____ intend to participate in the above referred tender of OIL INDIA LIMITED.

The tender conditions stipulate that the bidder shall submit documents pertaining to Bid Evaluation Criteria (BEC), duly verified and certified by designated independent Third Party Inspection Agency.

In this regard this is to certify that copies of documents pertaining to Bid Evaluation Criteria (BEC) submitted to us by the bidder have been verified and certified by us with originals and found to be genuine and authentic. We have signed and stamped on the copies of all the verified and certified documents having ____ nos. pages.

Note: In the event of any requirement, OIL reserves the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL.

Thanking you,

Authorised Person's Signature: _____

Name: _____

(END OF PROFORMA-VIII)

PROFORMA-IX

STATEMENT OF NON-COMPLIANCE (IF ANY)
(TO CLAUSES OTHER THAN THOSE IN BEC-BRC)

(Only exceptions/deviations to be rendered)

1.0 The Bidder shall furnish detailed statement of **exceptions/deviations,** if any, to the Tender stipulations, terms and conditions in respect of each Section of Bid Document other than BEC-BRC in the following format:

Section No.	Clause No. (Page No.)	Non-Compliance	Remarks

Signature of Authorised Signatory: _____

Name of Authorised Signatory: _____

Name of Bidder: _____

NOTE:

OIL INDIA LIMITED expects the bidders to fully accept the terms and conditions of the bid document. However, should the bidders still envisage some exceptions/deviations to the terms and conditions of the bid document, other than those in BEC-BRC, the same should be indicated as per above format and submit along with their bids. No deviation will be accepted in the clauses covered under BEC-BRC. If the "**Statement of Non-Compliance**" in the above Proforma is left blank (or not submitted along with the Bid), then it would be constructed that the bidder has not taken any exception/deviation to the Tender requirements.

(END OF PROFORMA-IX)

PROFORMA-X

PROFORMA LETTER OF AUTHORISATION FOR ATTENDING BID OPENING

(to be submitted on Bidder's official letter head)

To
Chief General Manager (C&P)
Oil India Limited
Plot No. 19, Sector-16 A,
Noida, U.P.

Sir,

Sub: **OIL's TENDER No. CLI9636P22**

I / We _____ confirm that Mr./ Ms. _____ (Name and address) as authorised to represent us during bid opening on our behalf with you against Tender Invitation No. **CLI9636P22** for **CONSTRUCTION OF TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT.**

Yours Faithfully,

Authorised Person's Signature: _____

Name: _____

Signature of Bidder: _____

Name: _____

Date: _____

(END OF PROFORMA-X)

PROFORMA-XI

PROFORMA LETTER OF AUTHORITY

(to be submitted on Bidder's official letter head)

To
Chief General Manager (C&P)
OIL INDIA LIMITED
Plot No. 19, Sector-16 A,
Noida, U.P.

Dear Sir,

SUB: OIL TENDER No. CLI9636P22

We_____of_____
Confirm that Mr./Ms. _____
(Name and Address) is authorised to represent us to Bid, negotiate and conclude the agreement on our behalf with you against Tender Invitation No. **CLI9636P22** for **CONSTRUCTION OF TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT** for any commercial / Legal purpose etc.

We confirm that we shall be bound by all and whatsoever our said representative shall commit.

Authorised Person's Signature: _____

Name: _____

Yours faithfully,

Signature : _____

Name & Designation _____

For & on behalf of _____

NOTE: This letter of authority shall be on printed letter head of the bidder, and shall be signed by a person competent and having the power of attorney (Power of attorney shall be annexed) to bind such Bidder.

(END OF PROFORMA-XI)

PROFORMA-XII

[TO BE FILLED-UP / SUBMITTED BY THE VENDOR ON ITS LETTER HEAD FOR E-REMITTANCE]

Name:

FULL Address:

Phone Number:
Mobile Number:
E-mail address:
Fax Number:
Bank Account Number (in which the Bidder wants remittance against invoices):
Bank Name:
Branch:
Address of the Bank:
Bank Code:
IFSC/RTGS Code of the Bank:
NEFT Code of the Bank:
PAN Number:
GST Registration Number:
GeM Seller ID:

_____
Signature of Bidder with Official Seal

(END OF PROFORMA-XII)

PROFORMA-XIII

FORM OF DECLARATION FOR BID SECURITY

To,
M/s. Oil India Limited
Plot No. 19, Sector-16 A,
Noida, U.P.

Sub: Declaration for Bid Security

Tender No: CLI9636P22 for CONSTRUCTION OF TRAINING CENTER CUM HOLIDAY HOME AT BRITONIA, PORVORIM, GOA INCLUDING ALL AMENITIES, OTHER ANCILLARY SERVICES COMPLETE IN ALL RESPECT.

Dear Madam/Sir,
After examining / reviewing provisions of above referred tender documents (including all corrigendum/ Addenda), we M/s. ..... (Name of Bidder) have submitted our offer / bid no.....

We, M/s. .....(Name of Bidder) hereby understand that, according to your conditions, we are submitting this Declaration for Bid Security.

We understand that we will be put on watch list/holiday/banning list (as per policies of OIL INDIA in this regard), if we are in breach of our obligation(s) as per following:

(a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or

(b) having been notified of the acceptance of our Bid by the OIL INDIA LIMITED during the period of bid validity:
   (i) fail or refuse to execute the Contract, if required, or
   (ii) fail or refuse to furnish the Contract Performance Security, in accordance provisions of tender document.
   (iii) Fail or refuse to accept 'arithmetical corrections' as per provision of tender document.

(c) having indulged in corrupt/ fraudulent/ collusive/ coercive practice as per procedure.

Place:
Date:

[Signature of Authorized Signatory of Bidder]
Name:
Designation:
Seal:

(END OF PROFORMA-XIII)

PROFORMA-XIV

FORM OF PERFORMANCE BANK GUARANTEE

To:
M/s. Oil India Limited,
Plot No. 19, Sector-16 A,
Noida, U.P. - 201301

WHEREAS _____ (Name and address of Contractor) (hereinafter called "Contractor") had undertaken, in pursuance of Contract No. _____ to execute (Name of Contract and Brief Description of the Work) _____ (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee as security for compliance with Contractor's obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are Guarantors on behalf of the Contractor, up to a total of (Amount of Guarantee in figures) _____ (in words _____), such amount being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of guarantee sum as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or the work to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way cease us from any liability under this guarantee, and we hereby waive notice of such change, addition or modification.

This guarantee is valid until the _____day of _____

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:
BANK FAX NO:
BANK EMAIL ID:
BANK TELEPHONE NO.:
IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

Notwithstanding anything contained herein:

a) Our liability under this Bank Guarantee shall be restricted up to Rs. .....

b) This guarantee shall be valid till .....

c) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before ..... (*Date of Expiry of BG PLUS one year claim period*).

d) At the end of the claim period that is on or after ..... (*Date of Expiry of the Bank Guarantee Plus Minimum of 1 year claim period shall be stipulated*) all your rights under this Guarantee shall stand extinguished and we shall be discharged from all our liabilities under this Guarantee irrespective of receipt of original Bank Guarantee duly discharged, by Bank.

SIGNATURE AND SEAL OF THE GUARANTORS _____
Designation _____
Name of Bank _____
Address _____

Witness _____
Address _____
Date _____
Place _____

(END OF PROFORMA-XIV)

PROFORMA-XV

PROFORMA OF BANK GUARANTEE TOWARDS PURCHASE PREFERENCE – LOCAL CONTENT

Ref. No. _____ Bank Guarantee No. _____
Dated _____

To,
Oil India Limited
Plot No. 19, Sector16A
Noida, UP - 201301
India

Dear Madam / Sirs,

1. In consideration of _____ (hereinafter referred to as OIL, which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and assignees) having entered into a CONTRACT No. _____ dated _____ (hereinafter called 'the CONTRACT' which expression shall include all the amendments thereto) with M/s _____ having its registered/head office at _____ (hereinafter referred to as the 'CONTRACTOR') which expression shall, unless repugnant to the context or meaning thereof include all its successors, administrators, executors and assignees) and OIL having agreed that the CONTRACTOR shall furnish to OIL a Bank guarantee for India Rupees _____ for the faithful fulfillment of conditions pertaining to Local Content in accordance with the value mentioned in the certificate of Local Content submitted by the contractor for claiming purchase preference under the Purchase Preference Policy (linked with Local Content).

2. We (name of the bank) _____ registered under the laws of _____ having head/registered office at _____ (hereinafter referred to as "the Bank", which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and permitted assignees) do hereby guarantee and undertake to pay to OIL immediately on first demand in writing any/all money to the extent of Indian Rs. (in figures) _____ (Indian Rupees (in words) _____) without any demur, reservation, contest or protest and/or without any reference to the CONTRACTOR. Any such demand made by OIL on the Bank by serving a written notice shall be conclusive and binding, without any proof, on the bank as regards the amount due and payable, notwithstanding any dispute(s) pending before any Court, Tribunal, Arbitrator or any other authority and/or any other matter or thin whatsoever, as liability under these presents being absolute and unequivocal. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable until it is discharged by OIL in writing. This guarantee shall not be determined, discharged or affected by the liquidation, winding up, dissolution or insolvency of the CONTRACTOR and shall remain valid, binding and operating against the bank.

3. The Bank also agrees that OIL at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the CONTRACTOR and notwithstanding any security or other guarantee that OIL may have in relation to the CONTRACTOR's liabilities.

4. The Bank further agrees the OIL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said CONTRACT or to extend time of performance by the said

CONTRACTOR(s) from time to time or to postpone for any time or from time to time exercise of any of the powers vested in OIL against the said CONTRACTOR(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relived from our liability by reason of any such variation, or extension being granted to the said CONTRACTOR(s) or for any forbearance, act or omission on the part of OIL or any indulgence by OIL to the said CONTRACTOR(s) or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

5. The Bank further agrees that the Guarantee herein contained shall remain in full force during the period that is taken for the performance of the CONTRACT and all dues of OIL under or by virtue of this CONTRACT have been fully paid and its claim satisfied or discharged or till OIL discharges this guarantee in writing, whichever is earlier.

6. This Guarantee shall not be discharged by any change in our constitution, in the constitution of OIL or that of the CONTRACTOR.

7. The Bank confirms that this guarantee has been issued with observance of appropriate laws of the country of issue.

8. The Bank also agrees that this guarantee shall be governed and construed in accordance with Indian Laws and subject to the exclusive jurisdiction of Indian Courts of the place from where the purchase CONTRACT has been placed.

9. Notwithstanding anything contained herein above, out liability under this Guarantee is limited to Indian Rs. (in figures) _____ (Indian Rupees) (in words) _____) and our guarantee shall remain in force until _____ (indicate the date of expiry of bank guarantee).

Any claim under this Guarantee must be received by us before the expiry of this Bank Guarantee. If no such claim has been received by us by the said date, the rights of OIL under this Guarantee will cease. However, if such a claim has been received by us within the said date, all the rights of OIL under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

In witness whereof, the Bank through its authorized officer has set its hand and stamp on this _____ date of _____ 20___ at _____.

WITNESS NO.1

_____
(Signature)
Full name and official address
(in legible letters)
Stamp

_____
(Signature)
Full name, designation and address
(in legible letters)
With Bank

WITNESS NO.2

_____
(Signature)
Full name and official address
(in legible letters)
Stamp

Attorney as per power of
Attorney No. _____
Dated _____

(END OF PROFORMA-XV)

PROFORMA-XVI

SAMPLE FORM OF AGREEMENT

THIS AGGREEMENT is made on the …….. day of ……. 2020, between (Name of Company) _____ of (Mailing address of Company) _____, hereinafter called "the Company", of the one part and (Name of Contractor) _____ (hereinafter called "the Contractor") of the other part.

WHEREAS the Company is desirous that certain works should be executed viz. (Brief description of works) _____ and has, by Letter of Award dated (Date of Letter of Acceptance) _____, accepted a Bid by the Contractor for the execution, completion and maintenance of such works.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   a) This form of Agreement,
   b) The Letter of Award
   c) Integrity Pact,
   d) Confidentiality and Non-Disclosure Agreement,
   e) Schedule of Rates,
   f) Scope of Work & Special Conditions of Contract and,
   g) General Conditions of Contract

3. The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies they shall take precedence in the order set out above.

4. In consideration of the payment to be made by the Company to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Company to execute, complete and maintain the works in conformity in all respects with the provisions of the contract.

5. The Company hereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the works the Contract price at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have set their respective hands and seals to this Agreement on the day, year first written above.

SIGNED, SEALED AND DELIVERED.

By the said Name_____

On behalf of the Contractor
in the presence of:

(END OF PROFORMA-XVI)

PROFORMA-XVII

TECHNICAL EVALUATION CHECKLIST FOR BEC-BRC

Bidder's Name _____

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
1		The bid shall conform generally to the specifications and terms and conditions given in the Bid Documents. Bids will be rejected in case services offered do not conform to the required parameters stipulated in the technical specifications. Not-withstanding the general conformity of the bid to the stipulated specifications, the following mandatory requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected. All the documents related to BEC/BRC must be submitted along with the Un-Priced Techno-Commercial Bid.			
1.0	**BASIC ELIGIBILITY CRITERIA**:				
2	**1.1**	**The bidder must be incorporated/constituted in India and must maintain more than 20% local content (LC) for the offered services to be eligible to bid against this tender**. Regarding calculation of local content and submission of documents during bidding & execution of contracts, provision of Purchase preference policy linked with Local Content (PP-LC) notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17.11.2020 by-MoPNG (including subsequent amendments thereof, if any) shall be applicable.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		If such local content is not maintained during execution of contract, OIL reserves the right to invoke the Performance Securities submitted by the bidding and supporting companies, in addition to resorting to other options as may be deemed appropriate. Whether or not the bidders want to avail PP-LC benefit against this tender, it is mandatory for them to meet the following at the bidding stage: (a) The bidder must provide the **percentage (%) of local content** in their bid, without which the bid shall be summarily rejected being non-compliant. (b) The Bidder shall submit an undertaking, from their authorised signatory having the Power of Attorney, along with the bid specifying the LC Percentage and such undertaking shall become part of the contract, if awarded [Format enclosed as **Proforma-V**]. (c) The aforesaid undertaking of the bidder shall also be supported by a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) giving the percentage of local content. (d) Bidder to submit a copy of their Certificate of Incorporation/ registration in India.			
2.0	**TECHNICAL CRITERIA:**				

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
3	**2.1**	**Technical Requirements**: The bidder should have experience of having successfully executed at least one (01) SIMILAR WORK of minimum value **Rs. 11,55,76,000.00 (Rupees Eleven Crore Fifty-Five Lakh Seventy-Six Thousand only)** for any Central /State Govt. Organization or Central/State Public Sector Units (PSU) or Autonomous bodies or Public Listed Company or Private Limited Company in previous 7(seven) years reckoned from the original bid closing date.			
4	**Notes to Clause 2.1 above**	**A.** SIMILAR WORK means Construction of Multi-Storied (Minimum G+2) RCC Framed Structure of Residential / Non-residential buildings including services like Electrification, Interior work, Plumbing & Sanitary work, Water Supply, Drainage, Road/Approach works. Annual Maintenance contracts for civil / electrical works will not be considered for the purpose of consideration of SIMILAR WORK. **B.** For proof of work experience of SIMILAR WORK the bidder must submit copies of contract document or work order documents issued by Central /State Govt. Organization or Central/State Public Sector Units (PSU) or Autonomous bodies or Public Listed Company or Private Limited Company showing details of work along with Completion Certificates or payment certificates along with the Bid. **C.** If the prospective bidder is executing SIMILAR WORK which is still running and the contract value / quantity executed prior to original bid closing date is equal to or more than the minimum prescribed value in the BEC/BRC, such experience will also be taken into consideration provided that the bidder has submitted satisfactory service execution certificate issued by end user. **D.** SIMILAR WORK executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC/BRC.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		E. Bids from Consortium and Joint Venture (JV) are not permitted against this tender. **F.** In case the quantum (value) of experience as per the Job Completion Certificate(s) submitted along with the bid are in currencies other than INR, the bidder shall have to convert the figures in equivalent INR considering the prevailing conversion rate on the date of completion of the job as per the Job Completion Certificate(s). A CA Certificate (with Valid UDIN) is to be submitted by the bidder regarding converted figures in equivalent INR. Else, the quantum of experience shall be evaluated by considering the BC selling rate declared by State Bank of India (on the date of completion of the job as per the Job Completion Certificate(s)) for conversion to INR.			
5	**2.2**	Bidder shall submit a Certificate of Site Visit failing which his bid will be liable to be rejected.			
6	**2.3**	**Financial Requirements**: **2.2.1** Annual Financial Turnover of the bidder during any of preceding three financial / accounting years from the original bid closing date should be at least **Rs. 5,77,88,000.00 (Rupees Five Crore Seventy-Seven Lakh Eighty-Eight Thousand only)** **2.2.2** Net worth of bidder should not be less than **Rs. 1,73,37,000.00 (Rupees One Crore Seventy-Three Lakh Thirty-Seven Thousand only)** for preceding financial/ accounting year. **Note**: Net worth shall mean: "Share capital + Reserves created out of profits and securities Premium - account (excluding re-valuation reserves) – deferred expenditure - Miscellaneous Expenditure to the extent not written off and carried forward Loss - Reserves created out of write back of depreciation and amalgamation".			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		2.2.3 Working Capital Requirement: The Working Capital of the Bidder must be at least **Rs. 1,73,37,000.00 (Rupees One Crore Seventy-Three Lakh Thirty-Seven Thousand only** as per the immediate preceding audited financial result to be considered from the original Bid Closing Date (BCD). In case the Working Capital is short the bidder can supplement the same through line of credit from a scheduled commercial bank having Net Worth more than INR 100 Crore as per enclosed format (**Proforma-III**). In addition to above the bidder should submit a financial resource/cash flow plan for execution of this contract. Working Capital shall mean "Current Assets minus Current liabilities" as per latest year's audited consolidated annual Financial Statements. **2.2.4 Bid Capacity:** The bidding capacity of the contractor should be equal to or more than **Rs. 11,55,76,000.00 (Rupees Eleven Crore Fifty-Five Lakh Seventy-Six Thousand only).** The bidding capacity shall be worked out by the following formula:			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		Bidding Capacity = [A x 1.5] - B Where, A = Maximum annual turnover in any one of the preceding three financial years B = Commitments in next twelve months from the date of expiry of the bid validity as per **Proforma-IV**. **2.2.5 Debt Equity Ratio:** Debt equity ratio of the bidder should not be more than 2:1 as per immediate preceding audited financial year result. Debt equity ratio shall mean long term Borrowings/ Net-worth.			
7	**Notes to Clause 2.3 above**	I. For proof of Annual Turnover, Net worth, Working Capital, Bid Capacity & Debt-Equity Ratio any one of the following documents/ photocopies must be submitted along with the bid:- (i) Audited Balance Sheet along with Profit & Loss account. OR			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		(ii) A certificate issued by a practicing Chartered / Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover, Net worth, Working Capital, Bid Capacity & Debt-Equity Ratio as per format prescribed in **Proforma-III**. II. Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth, Bid Capacity, Debt to Equity Ratio etc. of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that 'the balance sheet/Financial Statements for the financial year _____ has actually not been audited so far' as per format prescribed in **Proforma-VII**. III. In case the bidder is a Central Govt. organization / PSU /State Govt. organization / Semi-State Govt. Organization or any other Central / State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidences for the same.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		IV. Mention of UDIN (Unique Document Identification Number) is mandatory for all Certificates including audited financial statement/audited report issued by Chartered Accountant in Practice w.e.f. February 1, 2019.			
8	**2.4**	While submitting his bid, bidder will have to provide categorical confirmation to below requirements; otherwise his bid will be rejected. In the event of award, the contractor (if having a CC/OD facility with any bank) shall open a project specific CC/OD account with a bank with whom it has 10% or more of aggregate exposure (sanctioned fund based and non-fund based credit facilities) to the banking system, located in the vicinity where the project is executed. In case the contractor is not having a CC/OD facility with any bank, they may open a current account with full operating facilities as per RBI guidelines. The contractor shall deposit an amount equal to 10% of the annualised contract value within 15 days from the date of issue of LOA. All payments against the contract shall be remitted to the project specific account. Any withdrawal from this account shall be only after the first payment against the contract is made by OIL. At any point of time, the minimum balance after first remittance by OIL against invoice from the contractor shall remain 5% of the annualised contract value.			
3.0	**COMMERCIAL CRITERIA:**				
9	**3.1**	The bids are to be submitted in **single stage under 2 (two) bid system** i.e. Un-priced Techno-Commercial Bid and Price Bid together. Only the Price Bid should contain the quoted price.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
10	**3.2**	The price quoted by the successful bidder must be firm during the performance of the contract and not subject to variation on any account except as mentioned in the bid document. Any bid submitted with adjustable price quotation other than the above will be treated as non-responsive and rejected.			
11	**3.3**	Bid Security is not applicable against this tender. However, bidders shall submit along with their bid a signed "Bid Securing Declaration" (**Proforma-XIII**) accepting that, if they withdraw or modify their bids during the period of validity; or if they are awarded the contract and they fail to sign the contract; or if they fail to submit performance security before the deadline defined in the NIT; they will be suspended for the period of two years. This suspension of two years shall be automatic without conducting any enquiry.			
12	**3.4**	Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable. Bid made by parties who have not been allowed to participate against the tender will be rejected.			
13	**3.5**	Any bid received in the form of Physical document/Fax/E-mail will not be accepted.			
14	**3.6**	Bids shall be typed or written in indelible ink. The bidder or his authorized representative shall sign the bid digitally, failing which the bid will be rejected.			
15	**3.7**	The bid and all attached documents should be digitally signed by the bidder using **Digital Certificate Class III [Organization] along with Encryption Certificate** as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India before bid is uploaded. Digital Signature Certificates having "**Organization Name**" field other than **Bidder's Name** are not acceptable.			
16	**3.8**	Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by bidder, in which case such corrections shall be initiated by the persons(s) signing (digitally)			

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			Yes	No	
		the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.			
17	**3.9**	Any bid containing false statement will be rejected and action will be taken by Company as per Bid Document.			
18	**3.10**	Bidders must quote clearly and strictly in accordance with the price schedule outlined in Bidding Format attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal; otherwise the bid will be rejected. All other techno-commercial documents to be submitted with Techno-Commercial Bid as per tender requirement in "**Technical Attachments**" area under "**RFx Information**" tab.			
19	**3.11**	Bidder must accept and comply with the following provisions as given in the Tender Document in toto, failing which offer will be rejected: (i) Firm price (ii) EMD / Bid Bond (iii) Period of validity of Bid (iv) Price Schedule (v) Performance Bank Guarantee / Security deposit (vi) Delivery / Completion Schedule (vii) Scope of work			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		(viii) Guarantee of material / work (ix) Liquidated Damages clause (x) Tax liabilities (xi) Arbitration / Resolution of Dispute Clause (xii) Force Majeure (xiii) Applicable Laws (xiv) Specifications (xv) Integrity Pact (xvi) Any other condition specifically mentioned in the tender documents elsewhere that non-compliance of the clause lead to rejection of the bid.			
20	**3.12**	There should not be any indication of price in the Un-priced Techno-Commercial Bid. A bid will be straightway rejected if this is given in the Un-priced Techno-Commercial Bid.			
21	**3.13**	The Integrity Pact is applicable against this tender. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide "Section-VI- Integrity Pact" of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid.			

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			Yes	No	
		Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.			
22	**3.14**	Bid received with validity of offer less than 120 (one hundred twenty) days from the original bid closing date will be rejected.			
4.0	**GENERAL:**				
23	**4.1**	In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw / modify the deviation when / as advised by company. The loading so done by the company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BEC/BRC.			
24	**4.2**	To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be will be evaluated based on the submission. However, mere submission of such clarification shall not make the offer responsive, unless company is satisfied with the substantial responsiveness of the offer.			
25	**4.3**	If any of the clauses in the BRC contradict with other clauses of bidding document elsewhere, the clauses in the BRC shall prevail.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
26	**4.4**	Bidder(s) must note that requisite information(s)/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise Bids shall be rejected.			
27	**4.5**	The originals of such documents [furnished by bidder(s)] shall have to be produced by bidder(s) to OIL as and when asked for.			
28	**5.0**	Bidders are required to quote for all the items as per Bidding Format, otherwise the offer of the bidder will be straightway rejected. Offer should be inclusive of any Tax, Duty, etc., as applicable.			
29	**6.0**	If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.			
30	**7.0**	The quantities shown against each item in the Bidding Format shall be considered for the purpose of Bid Evaluation. It is, however, to be clearly understood that the assumptions made in respect of the quantities of various items in the price bidding format are only for the purpose of evaluation of the bid and the Contractor will be paid on the basis of the actual consumption.			
31	**8.0**	Price Bids of only techno-commercially qualified bidders will be evaluated on overall lowest cost basis (L-1 offer) i.e. considering total quoted price for all items inclusive of all liabilities including statutory liabilities as per Bidding Format.			
32	**9.1**	Price Bid uploaded without giving any of the details of the taxes (Including rates and amounts) will be considered as inclusive of all taxes including GST.			

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			Yes	No	
33	**9.2**	When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by OIL on the Purchase Order/Contracts will be binding on the bidder.			
34	**10.0**	**Discount**: Bidders are advised not to indicate any separate discount. Discount if any, should be merged with the quoted price. Discount of any type indicated separately will not be taken into account of evaluation purposes. However, in the event such offer without considering discount is found to be successful, OIL shall avail such discount at the time of award of contract.			
35	**11.0**	Based on the evaluation of techno-commercially qualified bidders whose bids have been found to be substantially responsive, the job will be awarded to the techno-commercially qualified L-1 bidder. A substantially responsive bid is one that meets the terms and conditions of the Tender and / or the acceptance of which bid will not result in indeterminate liability on OIL.			
36	**12.0**	In case of identical overall lowest offered rate by more than 1 (one) techno-commercially qualified bidder, OIL reserves the right to select the successful bidder by draw of lot between the parties offering the same overall lowest price.			
37	**13.0**	Purchase Preferences allowed as per Government Guidelines in Vogue and PPP [Public Procurement policy] for Micro and Small Enterprises is not applicable for this tender (being works contract tender).			
38	**14.0**	**Purchase Preference Policy (Linked with Local Content) (PP-LC)**: **(a)** Purchase Preference Policy- Linked with Local Content (PP-LC) as notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17th November, 2020 of Ministry of Petroleum and Natural Gas (MoPNG) shall be applicable in this tender. Bidders to check the provisions of the Notification for			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		their eligibility to bid and seek benefits for Purchase preference, accordingly. Purchase preference will be applicable as per the Notification(s) and any amendment thereof. **(b)** Bidders seeking benefits, under Purchase Preference Policy (linked with Local Content) (PP-LC) shall have to comply with all the provisions of the notification no. FP- 20013/2/2017-FP-PNG dated 17th November, 2020 or subsequent amendments, if any. **(c)** The work to be carried out against this tender is non-divisible. **(d)** (i) In case participating Class-I local supplier quote price within price band of L1+20%, such Class-I local supplier shall be considered for award of contract subject to matching their price with natural L1 bidder in a situation where L1 price is from a Class-II local supplier as defined in the policy. (ii) In case of more than one such Class-I local supplier are found to be within the price band of L1+20%, opportunity for price matching with natural L1 bidder shall be given on ascending order of inter-se ranking of price (L2, L3, …) and the lowest eligible Class-I local supplier consenting to match their price with the natural L1 bidder shall be considered for			

<table>
<tr><th>Sl. No.</th><th>Clause No. of BEC/BRC</th><th>Description</th><th colspan="2">Compliance</th><th>Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance</th></tr>
<tr><td></td><td></td><td></td><td>Yes</td><td>No</td><td></td></tr>
<tr><td></td><td></td><td>award of contract in a situation where L1 price is from a Class-II local supplier as defined in the policy.</td><td></td><td></td><td></td></tr>
<tr><td>39</td><td>15.0 (Third Party Inspection)</td><td>15.1 Oil India Limited (OIL) has engaged the following 09 (Nine) Independent Inspection Agencies to verify and certify various documents required against BEC/BRC of thetender:
<table>
<tr><th>Sl. No.</th><th>Name of Independent Inspection Agency</th><th>Contact E-mail ID</th></tr>
<tr><td>i.</td><td>M/s. RINA India Pvt. Ltd.</td><td>c. ssd@rina.org
d. Andrea.Vattuone@rina.org</td></tr>
<tr><td>ii.</td><td>M/s. Dr. Amin ControllersPvt. Ltd.</td><td>c. rkjain@rcaindia.net
d. info@rcaindia.net</td></tr>
<tr><td>iii.</td><td>M/s. Germanischer LlyodIndustrial Services GmbH (DNV GL- Oil & Gas)</td><td>a. mangesh.gaonkar@dnvgl.com</td></tr>
<tr><td>iv.</td><td>M/s. TÜV SÜD South AsiaPvt. Ltd.</td><td>e. Jaimin.Bhatt@tuv-sud.in
f. sanjaykumar.singh@tuv-sud.in
g. Pankaj.Narkhede@tuv-sud.in
h. Ajit.Yadav@tuv-sud.in</td></tr>
<tr><td>v.</td><td>M/s. IRCLASS Systems and Solutions Private Limited</td><td>f. abhishek.singh@irclass.org
g. pradeep.bansal@irclass.org
h. Asim.Hajwani@irclass.org
i. Amit.Ketkar@irclass.org
j. industrial_services@irclass.org</td></tr>
</table></td><td></td><td></td><td></td></tr>
</table>

Sl. No.	Clause No. of BEC/BRC	Description				Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
						Yes	No	
			vi.	M/s. Gulf Llyods Industrial Services (India) Pvt. Ltd.	e. contact@gulflloyds.com f. bbhavsar@gulfllyods.com g. inspection@gulflloyds.com h. gulflloyds.india@gmail.com			
			vii.	M/s. TUV India Private Limited	c. salim@tuv-nord.com d. delhi@tuv_nord.com			
			viii.	M/s. TÜV Rheinland (India)Pvt. Ltd.	e. Shailesh.Deotale@ind.tuv.com f. ravi.kumar@ind.tuv.com g. rupeshkumar.singh@ind.tuv.com h. Neeraj.Chaturvedi@ind.tuv.com			
			ix.	M/s. Bureau Veritas (India)Private Limited	l. udit.chopra@bureauveritas.com m. vishal.sapale@bureauveritas.com n. dinesh.sukhramani@bureauveritas.com o. p.sridhar@bureauveritas.com p. hariprasad.jhawar@bureauveritas.com q. amit.shaw@bureauveritas.com r. business.support@bureauveritas.com s. labhanshu.sharma@bureauveritas.com t. pramodkumar.yadav@bureauveritas.com u. sonal.lad@bureauveritas.com v. bvindia.corporate@in.bureauveritas.com			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		15.2 The Bidders have to get verified and certified the various documents required against BEC/BRC of the tender by any one of the above Independent Inspection Agenciesand submit the duly certified Inspection Certificate as per **Proforma-VIII** by the Inspection Agencies along with the Technical Bid of the Tender. All Charges of the Third- Party Independent Inspection Agencies towards verification of bidder's documents and certification thereof shall be borne by the respective bidders and payments on account of above inspection, verification and certification shall be made directly by the Bidder to theInspection Agency(s). OIL will not be responsible for any payment dispute betweenBidders and Third Party Inspection Agencies. **15.3** As mentioned above, Bidder(s) have to submit the verified documents along with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. **However, in case a bidder submits its bid along with all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening**. Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verifiedcopies/verification certificate within 07 (Seven) days of bid opening at its own risk and responsibility. **15.4** The methodology of inspection/ verification of documents is broadly as under but not limited			

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			Yes	No	
		to: (d) It is obligatory on the part of the interested Bidders, who choose to participate against the tender, to understand the tender requirements in entirety and the requisite documents sought for in support of the Bid Evaluation Criteria/Bid Rejection Criteria (BEC/BRC) mentioned in the tender in particular. The Bidder must produce all the appropriate documents before any of the OIL's empanelled third party certifying agencies for verification/certification. Neither OIL nor the third party certifying agency shall be held accountable in any manner regarding the choice of documents by the bidder for verification. Therefore, getting the appropriate documents inspected/verified by the agency in support of BEC/BRC clauses is the sole responsibility of the Bidder. ` (e) The prospective bidder shall contact any of the empaneled inspection agencies.The agency shall go through the Tender Document, especially the requirements of BEC/BRC and list the documents to be verified. They shall depute their qualified/competent inspector to the Bidder's premises to check the original documents and certify the copies which the bidder shall submit along with their bids. OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification of documents by OIL's empaneled third party agency shall not automatically make the bidder eligible for award of contract. (f) Verification of documents (but not limited to) are normally categorized as under: ➢ **General Requirement:**			

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			Yes	No	
		• Check Bidder's PAN Card • Check Bidder's GST Certificate • Check ITR of company • Check Bidder's Certificate of Incorporation – Domestic Bidder. ➢ **Additional Documents: (If applicable against the tender)** • Joint Ventures Agreements – To cross-check with JV Partners • Consortium Agreements – To cross-check with Consortium Partners • Holding/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary Company –To check the Share Holding pattern ➢ **Technical Criteria** • To check Experience Proof- Completion Certificates, Reference contact verification, Original Work Order/Contract Copy and any other document(s), if called for vide BEC/BRC of the Tender.			

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder to indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		➢ **Financial Criteria** • Check and verify Audited Balance Sheet/CA certificate • To check the Line of Credit, if incorporated in the tender. **Note: If any documents LOI/LOA/Contracts etc. are submitted towards BEC/BRC experience criteria issued by Oil India Limited, such documents need not be verified by TPI agency.**			
40	**16.0 (OTHER CONFIRMATIONS FROM BIDDER)**	While submitting bid, bidder will have to provide categorical confirmation to the requirements mentioned below; otherwise bid will be rejected: **16.1** The successful Bidder shall open a Project Specific Account (for details Ref. Clause 2.4 (Financial Requirements above)) wherein all receipts and payments in respect of the Contract are to be routed through this account only. **16.2** The RA bills of the contractor will be processed when the monthly bank account statement is submitted to OIL along with the bill and it is established that the withdrawn money has been utilized only for the project work. Along with each RA bill the Contractor will have to submit the proof of payments being made to its sub-vendors and sub-contractors. **16.3** If during the course of the project execution, it is established that the project progress is getting affected due to non-payment Construction Contractor to its sub-vendors and sub-contractors than OIL will have the right to make direct payments to these sub-vendors and			

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			Yes	No	
		sub-contractors from Construction Contractor RA bill final payable amount (after effecting statutory deductions as applicable) at total and risk and cost of Construction Contractor. **16.4** The bidder will not be able to use this account for entering into any type of mortgage/loan/factoring arrangement with other financial institutions during the course of the contract execution with OIL without the written consent of OIL.			
41	**17.0**	**COMPLIANCE OF THE COMPETITION ACT, 2002**: The bidder shall strictly comply with the provisions of the Competition Act, 2002, more particularly, Section-3 of the Act. Any violation the provisions of the Act shall attract penal action under the Act.			

(END OF PROFORMA-XVII)

- END OF TENDER -