

OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan, Pin – 786602
Dist.-Dibrugarh, Assam

INVITATION FOR BID
DOMESTIC COMPETITIVE BIDDING

OIL INDIA LIMITED (OIL) invites Bids through its E-Procurement Portal "<https://etender.srm.oilindia.in/irj/portal>" against (i) IFB No. CDI4011P17 for "Improvement of existing Bituminous surfacing(SDBC) from Loc. HNE near Makum Railway Crossing to Habeda OCS, about 4.2 KM length including supply of all materials and machineries in Makum area." (ii) IFB No. CDI4012P17 for "Providing and fixing sandwiched insulated roofing and composite panel wall cladding in the existing (operational) Central Workshop inside industrial area including dismantling of existing asbestos sheets, modifications as and where necessary and supply of all materials at Duliajan." & (iii) IFB No. CDI4014P17 for "Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement." The details of IFBs and procedures for applying & participation can be viewed using "Guest Login" provided in the E-Procurement portal and also in OIL's web site www.oil-india.com. The link to OIL's E-Procurement portal has also been provided through OIL's web site. All corrigenda, addenda, amendments, time extension, clarifications etc. to the tender will be hosted on the website and in the e-tender portal only and no separate notification shall be issued in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep themselves updated.

OIL INDIA LIMITED
(A GOVT. OF INDIA ENTERPRISE)
P.O.DULIAJAN-786602, ASSAM
E-TENDR NOTICE

OIL INDIA LIMITED (OIL) invites Bids under Composite bid System from established Civil Engineering firms / contractors through its E-Procurement portal "https://etender.srm.oilindia.in/irj_/portal" for the following works.

| IFB No. | SHORT DESCRIPTION OF SERVICE | BID SECURITY | COST OF BID DOCUMENT |
|---|--|--------------|----------------------|
| CDI4014P17 | Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement. | ₹ 55,500/- | ₹ 1000/- |
| Period of Sale of Bid Doc. for above work: 11-03-2017, 07:00 AM to 06-04-2017, 03:30 PM. | | | |
| Bid Closing / Opening Date & Time for all the above works: 13-04-2017 11.00/14.00 Hrs | | | |
| <p>Bidder shall require User ID and Password for online submission of Bid. Vendors having user ID & password can purchase bid documents on-line through OIL's electronic Payment Gateway. Tender fee: Only payment made through online payment gateway on or before the last date of sale of bid document shall be acceptable and no other instrument (cash/ DD/ Cheques/Cashier Cheque, etc.) shall be acceptable.</p> <p>New Vendors who do not have User ID & password shall request OIL for the issue of the same well in advance and OIL will take up to 5 working days to issue the same. Therefore bidder should not delay in making request till the last moment in their own interest. In case of delay because of late request by the bidders, OIL shall not be responsible for non-submission of Bid in absence of user ID and Password. Alternatively, User ID and Password may be generated online by the bidders by using the link for supplier enlistment given in OIL's e-tender portal and can purchase bid documents subsequently in the similar manner.</p> | | | |
| EXEMPTION OF TENDER FEE: Central Govt. Departments and Central Public Sector Undertakings (PSU) are exempted from payment of tender fee. Application for exemption of Tender Fee must reach the office of GM-Contracts, Contracts Department, Oil India Limited, Duliajan-786602(Assam) within the bid selling period. | | | |
| No physical Bid documents will be issued. The details of IFB can be viewed using "Guest Login" provided in the E-Procurement portal and also in OIL's web site www.oil-india.com . The link to OIL's E-Procurement portal has also been provided through OIL's web site www.oil-india.com . | | | |
| All corrigenda, addenda, amendments, time extension, clarifications etc. to the tender will be hosted on the OIL's website and in the e-tender portal only and no separate notification shall be issued in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep them updated. | | | |

Date: 09-03-2017

DGM- Contracts (P)
for RESIDENT CHIEF EXECUTIVE

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts Department, Duliajan

OIL INDIA LIMITED a premier Public Sector Enterprise of Govt. of India engaged in drilling and exploration activities for hydrocarbon invites ON-LINE BIDS from experienced and established firms / contractors meeting the requisite criteria for the following mentioned work under **SINGLE STAGE Composite Bid System** through its e-Procurement site:

DESCRIPTION OF WORK/ SERVICE: Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement.

LOCATION OF WORK: Main Industrial area, Duliajan.

CONTRACT PERIOD: 70 (Seventy) Weeks.

BID CLOSING/ OPENING DATE & TIME: 13-04-2017(11:00 HRS/14:00 HRS)

BID SECURITY DEPOSIT: ₹ 55,500/- (Rupees Fifty Five Thousand Five Hundred Only).

- a) Bid Security deposited vide Bank Guarantee/LC No. _____
dated _____ of _____

(Original hard copy of (a) should reach the office of GM-CONTRACTS before Bid opening date and time, otherwise Bid will be rejected. A scanned copy of this document should also be uploaded along with the Un-priced bid documents.

b) Bidders to confirm that in the event of the award of Contract he/she/they will submit Performance Security Deposit @ 2.5% of the total contract price within two weeks of issue of LOI/LOA and this will not earn any interest. Immediately after deposit of Performance security, successful bidder shall have to sign the formal contract Agreement.

2.0 SEALED ENVELOPES containing the Bid Security Deposit (EMD) shall be marked with the above Tender Number and description of work and addressed to

**GM-CONTRACTS
CONTRACTS DEPARTMENT
OIL INDIA LIMITED
Duliajan – 786602
Assam.**

2.1 The bidders shall pay the requisite Bid security against the individual IFBs through the online payment gateway. Alternatively, the bidders may deposit the requisite BID SECURITY in the form of Bank Guarantee/LC from a Nationalized /

Scheduled Bank in favour of M/s Oil India Limited and payable at DULIAJAN. **DD/Cheques/ Cashier Cheque etc. will not be acceptable.** This Bid Security 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 below. **Bids without Bid Security in the manner specified above will be summarily rejected.** Bid should be submitted on-line through OIL's e-Tendering Portal up to 11:00 hrs (IST) (Server Time) on the date as mentioned and will be opened on the same day at 14:00 hrs (IST) at Office of the GM-Contracts in presence of authorized representative of the bidder. **If the bid security is submitted in the form of BG / LC, the same should be dropped in the tender box placed at the office of the GM-Contracts on or before 1:30 p.m. of the schedule date of opening of tender.**

Exemption from submission of bid security:

- a. Central Govt. Department & Public Sector Undertaking Companies are exempted from submission of bid security.
- b. **OIL registered 'A' class bidders are exempted from depositing the bid security against this tender considering they submit revised "One Time Security Deposit" in line with OIL's notification no.: CONT/CIV/1296/2016 dated 25.08.2016, on or before 13:30 Hrs. of Bid Closing/Opening date of this tender.**

2.2 THE PHYSICAL BID SECURITY IS TO BE SUBMITTED ALONGWITH A COVERING LETTER MENTIONING THE e-TENDER NO AND THE BIDDER'S NAME AND ADDRESS IN A DULY SEALED ENVELOPE ADDRESSED TO – GM – CONTRACTS, OIL INDIA LIMITED, CONTRACTS DEPARTMENT, DULIAJAN – 786602

2.3 If the bidders deposit the requisite Bid security in the form of Bank Guarantee, then the Bank Guarantee should be valid for 30 days beyond the required bid validity period.

3.0 However, if the above mentioned closing / opening day of the tender happens to be non-working day due to Bandh / Strike or any other reason, the bids will be received and opened on the following working day at the same time except on Saturdays.

4.0 The rates shall be quoted per unit as specified in the "Price Bidding Format" attached just below the "Tendering text". Bidder should note that no pricing information is furnished in the "c-Folder" (Technical Bid) otherwise the bid will be rejected.

4.1 All other techno-commercial documents other than price details to be submitted with un-priced bid as per tender requirement placed in the 'un-priced' bid folder.

4.2 The bid and all uploaded documents must be digitally signed using "Class 3" digital certificate [e-commerce application (Certificate with personal verification and Organization name)] 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.

4.3 The authenticity of above digital signature shall be verified through authorized CA after bid opening. If the digital signature used for signing is not of "Class -3" with Organization's name, the bid will be rejected.

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

4.5 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 bid validity period will lead to forfeiture of his/her/their Bid Security in full and debarment from participation in future tenders, at the sole discretion of the Company and the period of debarment will be decided as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.

(b) Once a withdrawal letter is received from any bidder, the offer will be treated as withdrawn and no further claim / correspondence will be entertained in this regard.

7.0

a) The Bid must be valid for 90 (Ninety) days from the date of opening of the tender.

b) In case of extension of Bid Opening Date, Bid validity must be extended suitably by the bidder, as and when advised by OIL.

c) The amount of Bid Security shall be as specified in the NIT.

d) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for minimum 120 days (One Hundred Twenty) from the date of bid opening.

e) In case of extension of Bid Opening Date, Bid Security validity must be extended suitably by the bidder, as and when advised by OIL.

f) The bidders must upload the Integrity Pact, digitally signed by the authorized signatory (who is authorized to sign the bid) along with the Technical Bid.

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

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

10.0 Before submission of bids, the bidder is advised to inspect the work site with permission from GM -Civil or his representative, to assess the nature and extent of work and the conditions under which it will be carried out. He may also seek such clarification from this office as are deemed necessary.

11.0 The bidder should offer their overall rate only as a percentage of Company's internally estimated cost within the limit of at Par to +10% on the Company's internal estimated contract cost. The bids with overall rates quoted below at par and above (+10%) of Company's internal estimate will be rejected outright.

12.0 The bidders are required to furnish the composition and status of ownership of the firm in whose name bid documents have been purchased/issued along with one or more of the following documentary evidences (which are applicable to the bidder) in support of the same and scanned copies of the same should be uploaded along with the Un priced bid documents.

12.1 In case of Sole Proprietorship Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, business and residential address, E-mail and telephone numbers of the owner and copies of Service Tax and Central Excise Registration Certificate.

12.2 In case of HUF, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form, Family Arrangement indicating therein the name, residential address, E-mail and telephone numbers of the owners in general and Karta in particular and copies of Service Tax and Central Excise Registration Certificate.

12.3 In case of Partnership Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the partners(including the Managing Partner), registered partnership agreement/deed and copies of Service Tax and Central Excise Registration Certificate.

12.4 In case of Co-Operative Societies, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from Registrar of Co-Operative Societies and copies of Service Tax and Central Excise Registration Certificate.

12.5 In case of Societies registered under the Societies Registration Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from the Registrar of the state and copies Service Tax and Central Excise Registration Certificate.

12.6 In case of Joint Stock Companies registered under the Indian Companies Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, Certificate of Incorporation from the Registrar of Companies, Memorandum and Articles and copies of Service Tax and Central Excise Registration Certificate.

12.7 In case of Trusts registered under the Indian Trust Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Trustee or persons who are at the helm of affairs, registration certificate from the Registrar of the state, Trust Deed and copies Service Tax and Central Excise Registration Certificate.

NOTE: Point no. 12.1 to 12.7 is not applicable for contractors who are already registered with OIL INDIA LIMITED.

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

14.0 SECURITY DEPOSIT:

The successful bidder shall furnish a Performance Security Deposit in the form of Bank Guarantee/LC as specified above before signing the formal contract. The Security Deposit will be refunded to the Contractor after satisfactory completion of the work, but a part or whole of which shall be used by the Company in realization of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason. This Security Money shall not earn any interest.

15.0 OIL INDIA LIMITED reserves the right to curtail / enhance the scope of the work stated above or cancel, if required.

16.0 The amount of retention money shall be released after 6 (six) months from the date of completion certified by the concerned department.

17.0 The work shall have to be started within seven days from the date of work order.

18.0 Time Schedule : The time allowed for completing the work will be reckoned from the date of issue of work order. Time is the essence of the Contract and failure on part of the contractor to complete the work within the stipulated time, shall entitle the Company to impose liquidated damages and / or penalty from the contractor as per terms of the Contract.

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

20.0 BACKING OUT BY BIDDER: In case any bidder withdraws their bid within the bid validity period, the Bid security will be forfeited and be debarred from further tendering at the sole discretion of the Company and the period of debarment will not be less than 2 (Two) years.

21.0 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 OIL's banning policy dated 6th Jan 2017 available at OIL's website.

22.0 FURNISHING FRAUDULENT INFORMATION/DOCUMENT: If it is found at any time that, a Bidder / Contractor has / had furnished fraudulent documents / information, the Bid Security / Performance Security shall be forfeited and the bidder / contractor shall be dealt as per OIL's banning policy dated 6th Jan 2017 available at OIL's website, besides legal action.

23.0 Bidder(s) must also furnish the followings:

- a) NAME OF FIRM :
- b) DETAIL POSTAL ADDRESS :
- c) MOBILE / TELEPHONE NO :
- d) E-MAIL ADDRESS :
- e) FAX NO (If available) :
- f) CONTACT PERSON :
- g) VENDOR CODE (If available) :

24.0 The tender will be governed by :

- a) Covering Letter.
- b) Part - I - General Terms and Conditions for Works Contract. (GCC)
- c) Part - II - Schedule of Work, Unit and Quantity (SOQ)
- d) Part - III -Particular Specification, Special Terms, Conditions & Instructions of Contract (SCC)
- e) Part- IV - SCPME
- f) Part- V-Safety Measures
- g) Part- VI –Integrity Pact
- h) Bid Rejection Criteria & Bid Evaluation Criteria (BRC/BEC).

i) Special Note:

Please note that all tender forms and supporting documents are to be submitted on-line 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 at following address:

**GM Contracts,
Contracts Department,
Oil India Limited,
Duliajan- 786602, Assam**

- a. ORIGINAL BID SECURITY (**Only in case of Bidder(s) submitting Bid Security in the form of Bank Guarantee/LC**).

A scanned copy of Bid Security should also be uploaded along with the Unpriced Techno-Commercial Bid documents.

- b. 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/LC)** must be received at OIL's GM (Contracts) office at Duliajan on or before the scheduled date & time specified in the NIT, failing which the bid shall 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.

25.0 The tender is invited under SINGLE STAGE-Composite Bid System. The bidder has to submit both the "TECHNICAL" 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 rates shall be quoted per unit as specified in the "Price Bidding Format" attached just below the "Tendering text" 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.

26.0 In Technical Bid opening, only Technical RFX (Technical-Folder) will be opened. Therefore, the bidder should ensure that Technical bid is uploaded in the Technical - Folder link (Technical RFX link) under Un-priced Bid Tab Page only. No price should be given in above Technical RFX. 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 "Class 3" digital signature certificate with Organization's Name (*e-commerce application*) 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.

27.0 The Integrity Pact is applicable against this tender:

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide "Part-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 technical bid) duly signed (digitally) by the same signatory who sign the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. 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 Rajiv Mathur, IPS (Retd.), Former Director, IB, Govt. of India, E-Mail ID: rajivmathur23@gmail.com and Shri Satyananda Mishra, IAS (Retd.) Former Chief Information Commissioner of India & Ex-Secretary, DOPT, GOI E-Mail ID: satyanandamishra@hotmail.com have been appointed as Independent External Monitors).

28.0 SCREEN SHOTS:

On "EDIT" Mode- The following screen will appear. Bidders are advised to upload "Un-priced Techno-Commercial Bid" and "Priced Bid" in the places as indicated below:

Note :

* The "Techno-Commercial Unpriced Bid" shall contain all techno-commercial details **except the prices**.

** The "Price bid" must contain the price schedule and the bidder's commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Price Bid. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Attachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and click on OK to save the File.

29.0 OIL now looks forward to your active participation in the IFB.

GM-CONTRACTS
For RESIDENT CHIEF EXECUTIVE

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts Department,
Duliajan, DISTRICT: DIBRUGARH
ASSAM, PIN: 786602
Works Contract

DESCRIPTION OF WORK/SERVICES: - Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement.

GENERAL CONDITIONS OF CONTRACT (GCC)

MEMORANDUM OF AGREEMENT made this _____ day of _____ Between OIL INDIA LIMITED a Company incorporated under the Companies Act 1956 and having its Registered Office at Duliajan in the District of Dibrugarh, Assam (hereinafter called Company) of the one part and Shri/Smti _____ and Shri/Smti _____ carrying on business as partners /proprietor under the firm name and style of M/s. _____ with the main Office at _____ in the District of _____ aforesaid (hereinafter called 'Contractor') on the other part.

WITNESSETH:

1. a) The contractor hereby agrees to carry out the work set down in the Schedule of work which forms part-II of this Contract in accordance with the 1968 General Conditions of Contract of Oil India Limited and General Specifications read in conjunction with any drawings and Particular Specifications & instructions which forms Part-III of the contract utilizing any materials/services as offered by the Company as per Part-IV of the contract at _____ .

b) In this Contract all words and expressions shall have the same meaning as are respectively assigned to them in the 1968 General Conditions of Contract of Oil India Limited which the Contractor has perused and is fully conversant with before entering into this Contract.

c) The clauses of this contract and of the specifications set out hereunder shall be paramount and in the event of anything herein contained being inconsistent with any term or terms of the 1968 General Conditions of Contract of Oil India Limited, the said term or terms of the 1968 General conditions of Contract to the extent of such inconsistency, and no further, shall not be binding on the parties hereto.

2. The contractor shall provide all labour, supervision and transport and such specified materials described in part-II of the Contract including tools and plants as necessary for the work and shall be responsible for all royalties and other levies and his rates shall include for these. The work executed and materials supplied shall be to the satisfaction of the Company's Engineer and Contractor's rates shall include for all Contractor

incidental and contingent work which although not specifically mentioned in this contract are necessary for its completion in a sound and workman like manner.

3. The Company's Engineer shall have power to:

a) Reduce the rates at which payments shall be made if the quality of work although acceptable is not up to the required standard set forth in the OIL Standard Specifications which have been perused and fully understood by the Contractor.

b) Order the Contractor to remove any inferior material from the site and to demolish or rectify any work of inferior workmanship, failing which the Company's Engineer may arrange for any such work to be demolished or rectified by any other means at the Contractor's expenses.

c) Order the Contractor to remove or replace any workman who he (The Engineer) considers incompetent or unsuitable; the Engineer's opinion as to the competence and suitability of any workman engaged by the Contractor shall be final and binding on the Contractor.

d) Issue to the Contractor from time to time during the progress of the work such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

e) Order deviations in Part II and III of this Contract. All such deviation orders shall be in writing and shall show the financial effect, if any, of such deviation and whether any extra time is to be allowed. The rates to be applied for such Deviation Order shall be the same for those appearing in Company's Schedule of Rate in force on the date of issue of such Deviation Order, to which the contractor has no objection.

4. The Contractor shall have no claim against the company in respect of any work which may be withdrawn but only for work actually completed under this contract. The contractor shall have no objection to carry out work in excess of the quantities stipulated in Part-II. During the actual execution of the contract, if any, additional items (deviation items) are required, which are not covered in the tender, payment of such items shall be made at the current OIL schedule of rate. In case of positive variation in quantity of any items for the quantity mentioned in the schedule of work during the actual execution of work, the contractor will have to carry out the positive varied quantity at the contract rate, or internally estimated rate whichever is lower.

5. The Company reserves the right to cancel this Contract at any time upon full payment of work done and the value of the materials collected by the contractor for permanent incorporation in the work under this contract particularly for execution of this contract up to the date of cancellation of the Contract. The valuation of the work done and the materials collected shall be estimated by the company's Engineer in presence of the contractor. The Contractor shall have no claim to any further payment whatsoever. The valuation would be carried out exparte if Contractor fails to turn up despite reasonable notice which will be binding on the Contractor.

6. The Contractor hereby undertakes to indemnify the Company against all claims which may arise under the under noted Acts:-

- I. The Mines Act.
- II. The Minimum Wages Act, 1948.
- III. The Workman's Compensation Act, 1923.
- IV. The Payment of wages Act, 1963.
- V. The Payment of Bonus Act, 1965.
- VI. The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under.
- VII. Employees' Pension Scheme, 1995.
- VIII. Inter-State Migrant (Regulation of Employment and Condition of Service) Act. 1979.
- IX. The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- X. VAT Act.
- XI. Service Tax Act.

or any other Acts or Statute not here in above specifically mentioned having bearing over engagement of workers directly or indirectly for execution of work. The Contractor shall not make the Company liable to reimburse the Contractor for the statutory increase in the wage rates of the Contract Labour appointed by the Contractor. Such Statutory increase in the wage rates of Contract Labour shall be borne by the contractor.

7. The Contractor shall clear away all rubbish and surplus material from the site on completion of work and shall leave the site clean and tidy.

8. The Contractor must complete the work within 70 weeks of the written order to commence work. During the currency of the job, the work progress must be commensurate with the time elapsed. In the event of any delay on the contractor's part, he/she will be liable to pay to the company liquidated damages at the rate of 1/2% (Half percent) per week of the contract price of the item(s) delayed in completion and the maximum value of the liquidated damage will be 7.5% of the contract price of the item(s) delayed provided the item(s) delayed are not critical for commissioning and final utilization of the work. If, however, the item(s) delayed in completion are critical for commissioning and final utilisation of the work then the contractor will be liable to pay liquidated damages by way of penalty at the rate of 1/2% (Half percent) per week of delay of the total contract cost subject to a maximum of 7.5% of total contract cost.

The Chief Engineer's certificate as to the criticality or otherwise of an item shall be final.

The payment of liquidated damages/penalty may be reduced or waived at the sole discretion of the Company whose decision in this regard will be final.

In the event of there being undue delay in execution of the Contract, the Company reserves the right to cancel the Contract and / or levy such additional damages as it deems fit based on the actual loss suffered by the company attributable to such delay. The company's decision in this regard shall be final.

9. In order to promote, safeguard and facilitate the general operational economic in the interest of the Company during the continuance of this contract the Contractor hereby agrees and undertakes not to take any direct or indirect interest and or support,

Contractor

- 3

Company

assist, maintain or help any person or persons engaged in antisocial activities, demonstration, riots, or in any agitation prejudicial to the Company's interest and any such even taking shape or form at any place of the Company's works or and its neighbourhood.

10. The tendered all-inclusive Price (i.e. the Contract price) is ` _____ **(Not to be filled up by bidder while submitting the offer in c-Folder. This figure will be filled up by OIL at the time of award of the contract to the successful bidder.)**
(_____ only.)

but the Company shall pay the Contract or only for actual work done at the all inclusive rates set down in the Schedule of work part II of this Contract.

On account payment may be made, not oftener than monthly, up to the amount of 92.5% of the value of work done. Final payment will be made only after satisfactory completion of the work. Such final payment shall be based on the work actually done allowing for deviations and any deductions and the measurement shall be checked and certified correct by the Company's Engineer before any such final payment is made.

11. The contractor employing 20 (twenty) or more workmen on any day preceding 12 months shall be required to obtain requisite licence at his cost from the appropriate Licensing Officer before undertaking any Contract work. The Contractor shall also observe the rules & regulations framed under the Contract Labour (Regulation & Abolition) Act.

12. Wages shall be paid by the Contractor to the workmen directly without any intervention of any Jamadars or Thekadars and that the Contractor shall ensure that no amount by way of commission or otherwise be deducted/ recovered by the Jamadar from the wages of the workmen.

13. The Company for any reason whatsoever and of which the company shall be sole judge may terminate this Contract with a 24 hours notice in writing to the Contractor and in the event of Company's so doing the clause 5 here of shall prevail and the accounts between the parties will be in accordance therewith finalised.

14. The Contractor will not be allowed to construct any structure (for storage / housing purpose) with thatch, bamboo or any other inflammable materials within any company's fenced area.

15. The Contractor shall ensure that all men engaged by him/her are provided with appropriate protective clothing and safety wear in accordance with regulation 89(a) and 89(b) in the Oil mines Regulations 1984. The Company's representative shall not allow/accept those men who are not provided with the same.

16. All Statutory taxes levied by the Central and State Government or any other competent authority from time to time will be borne by Contractor and the amount of the contract specified in the contract is inclusive of all tax liabilities.

17. The Contractor shall deploy local persons in all works.

18. The Contractor shall not engage minor labour below 18(eighteen) years of age under any circumstances.

19. The Contractor and his/her workmen shall strictly observe the rules and regulations as per Mines Act. (Latest editions).

20. **Special Conditions:**

a) The amount of retention money shall be released after 6(six) months from the date of issue of completion certificate from concerned department.

b) The contractor will be required to allow OIL Officials to inspect the work site and documents in respect of the workers' payment.

c) Contractor(s) whosoever is liable to be covered under the P.F. Act and contract cost is inclusive of P.F., must ensure strict compliance of provisions of Provident Fund and Miscellaneous Provisions Act, 1952 in addition to the various Acts mentioned elsewhere in this contract. Any contractor found violating these provisions will render themselves disqualified from any future tendering. As per terms of the contract, if applicable, the Contractor must deposit Provident Fund Contribution (covering Employee's & Employer's share) with the competent authority monthly under their direct code. The Contractor shall be required to submit documentary evidence of deposit of P.F. Contribution to the Company. In case of failure to provide such documentary evidence, the Company reserves the right to withhold the amount equivalent to applicable P.F. Contribution.

d) In case P.F. is not included in the contract cost and later on required to be deposited by the Contractor, the same will be reimbursed on production of documentary evidence of depositing the same to the authority concerned. 12% P.F. will be applicable on the wage component of the contract cost. The following points are incorporated in the contract based on Contractor's declaration at the time of submission of offer against this contract.

(i) 12% P.F. is included / not included in the contract cost.

(ii) Wage component of the contract cost is: 22.26 %.

e) As per Service Tax Act, the contractors are required to furnish service Tax Invoices Containing the following details:

(i) Name, address and registration No of the contractor

(ii) Name and address of the service recipient i.e. OIL

(iii) Description and value of taxable services and the service Tax payable thereon

Note: In absence of Service Tax invoices, Service Tax will not be reimbursed and the consequences of the same shall entirely rest upon the Contractors

The Contractor shall have to submit Invoice of Service Tax as per the following Format:
Format of Invoice (As per Rule 4A (1) of the Service Tax Rule's 1994)

TAX INVOICE

Name of the Service Provider.....

Address of the Service Provider.....

Service Tax Regn. No of the service provider.....

Name & address of the Service Receiver

Oil India Limited, Duliajan, Assam

Invoice Serial No.....

Invoice Date.....

| Particulars | Amount (Rs) |
|---|-------------|
| Description of the service provided or agreed to be provided (e.g. AMC Bill against Contract No.....for the period.....) | A |
| Add service Tax 15 % on (A) above (In case of taxable value of service is not 100 %, than specify the value of taxable service and apply 15 % of the qualifying amount) (e.g. if the value of service is only 40%, than service tax should be calculated at 15 % on 40% of the value declared at (A) above.) | B |
| Total amount (Including service Tax) (A + B) | C |
| Less: Service Tax Payable by Oil India Limited under reverse charge | D |
| Net Bill Amount | E |

Signature of Proprietor/partner

21. ARBITRATION:

Any dispute under this contract will be settled through Arbitration as per Indian Arbitration and Conciliation Act, 1996.

Place of Arbitration: Duliajan, Dibrugarh, Assam.

22. FORCE MAJEURE:

Force Majeure (exemption) Clause of the International Chamber of Commerce (ICC Publication No. 421) is hereby incorporated in this contract.

23. I.B. VERIFICATION REPORT AND SECURITY REVIEW:

Contractor will be required to submit the verification report to ascertain character and antecedents from the Civil Administration towards the persons engaged under this contract to the Head of the user Department before engagement.

24. In case of any doubt or dispute as to the interpretation of any clause herein contained, the decision of the Company's Engineer shall be final and binding on the contractor.

25. SET OFF CLAUSE:-

"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 Oil India Limited and set off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of a sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited)."

26.0 FURNISHING FRAUDULENT INFORMATION/DOCUMENT:

If it is found that a Bidder/Contractor has furnished fraudulent document/information, the Bid Security/ Performance Security shall be forfeited and the party shall be debarred as per the OIL's Banning Policy dated 6th Jan 2017 available at OIL's website.

27.0 LIQUIDATED DAMAGES FOR DELAY IN MOBILISATION AND/ OR COMPLETION OF WORKS AND SERVICES

27.1 In normal case of works /service contracts, liquidated damages will be applicable @ 0.5% of the contract value per week or part thereof, for delay in contract mobilization /completion date subject to a maximum ceiling of 7.5% of contract value .

IN WITNESS whereof the parties hereunto set their hands seals the day and year first written above:-

SIGNED & DELIVERED FOR AND
ON BEHALF OF

(Signature of Contractor or his legal Attorney)

By the hand of

It's Partner/Legal Attorney

(Full Name of Signatory)

(Seal of Contractor's Firm)

And in presence of

(Signature of witness)

Date: _____

(Full Name of Signatory)

Address:

(Signature of Acceptor)

SIGNED & DELIVERED FOR & ON
BEHALF OF OIL INDIA LIMITED

Designation _____

Date_____

Part-II SOQ

OIL INDIA LIMITED
(A Govt. of India Enterprise)
Duliajan, Assam
WORKS CONTRACT

E-Tender No.: CDI4014P17

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|--------|
| | Group A SEC-A | | | | |
| 10 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.8.1) | 264.69 | Cum | INR. | 146.57 |
| 20 | 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. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.25) | 264.69 | Cum | INR. | 93.91 |
| 30 | :Supplying and filling in plinth with sand under floors including, watering, ramming consolidating and dressing complete. (Ref from CPWD SOR 2012 Item No.: 2.27) | 92.07 | Cum | INR. | 897.21 |
| 40 | Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.28.1) | 559.70 | Sqm | INR. | 10.48 |
| 50 | Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyrifos/ Lindane emulsifiable concentrate of 20% (Ref from CPWD SOR 2012 Item No:2.34.1) | 76.73 | L | INR. | 208.39 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|----------|
| 60 | Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor : With Chlorpyrifos/Lindane E.C. 20% with 1% concentration (Ref from CPWD SOR 2012 Item No:2.35.3.1) | 153.45 | Sqm | INR. | 98.90 |
| 70 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No: 4.1.5) | 27.74 | Cum | INR. | 3,708.41 |
| 80 | :Centering shuttering including struttings, propping etc. and removal of form work for: Foundations, footings, bases for columns. (Ref from CPWD SOR 2012 Item No: 4.3.1) | 34.38 | Sqm | INR | 187.04 |
| 90 | Providing & Laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size). (Ref from CPWD SOR 2012 Item No: 4.11) | 268.79 | Sqm | INR. | 211.17 |
| 100 | Extra for mixing water proofing material in cement concrete work @ 1 kg per 50 kg of cement.(Rate: Per kg of water proofing materials mixed @ 1 kg per 50 kg of cement) (Ref from CPWD SOR 2012 Item No:4.12) | 86.01 | Kg | INR. | 39.62 |
| 110 | Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth. (Ref from CPWD SOR 2012 Item No:4.17) | 54.80 | Sqm | INR. | 367.46 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|----------|
| 120 | Providing & Laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level : 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No:5.1.2) | 32.76 | Cum | INR. | 3,676.60 |
| 130 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No:5.2.2) | 16.18 | Cum | INR. | 4,394.86 |
| 140 | Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 5.3) | 76.37 | Cum | INR. | 4,672.05 |
| 150 | Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete. (Ref from CPWD SOR 2012 Item No:5.9.1) | 38.67 | Sqm | INR. | 187.04 |
| 160 | Centering and shuttering including strutting, propping etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform. (Ref from CPWD SOR 2012 Item No:5.9.3) | 357.05 | Sqm | INR. | 348.76 |
| 170 | Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers. (Ref from CPWD SOR 2012 Item No:5.9.5) | 252.65 | Sqm | INR. | 293.90 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|----------|-----|-------|-----------|
| 180 | Centering and shuttering including strutting, propping etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts. (Ref from CPWD SOR 2012 Item No:5.9.6) | 209.04 | Sqm | INR. | 409.73 |
| 190 | Centering and shuttering including strutting, propping etc and removal of form for: Stairs, (excluding landings) except spiral-staircases. (Ref from CPWD SOR 2012 Item No:5.9.7) | 30.42 | Sqm | INR. | 365.68 |
| 200 | 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 (Ref from CPWD SOR 2012 Item No:5.9.16.1) | 246.70 | M | INR. | 111.45 |
| 210 | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars. (Ref from CPWD SOR 2012 Item No:5.22.6) | 22937.40 | Kg | INR. | 69.76 |
| 220 | Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand) (Ref from CPWD SOR 2012 Item No:6.1.1) | 23.20 | Cum | INR. | 5,145.42 |
| 230 | Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : (Ref from CPWD SOR 2012 Item No:6.4.1) | 123.57 | Cum | INR. | 5,772.55 |
| 240 | Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand) (Ref from CPWD SOR 2012 Item No:6.13.2) | 52.14 | Sqm | INR. | 675.58 |
| 250 | Providing Wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :Second class teak wood (Ref from CPWD SOR 2012 Item No:9.1.1) | 0.93 | Cum | INR. | 96,170.97 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|----------|
| 260 | Providing & Fixing 35mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B) including ISI marked black enameled M.S. butt hinges with necessary screws as per directions of Engineer-in-Charge and panelling with panels of:12mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination) grade - 1 medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823 Grade -1, Type II marked: (Ref from CPWD SOR 2012 Item No:9.6.3) | 18.06 | Sqm | INR. | 2,669.62 |
| 270 | 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineerin-charge. (For W.C. and bathroom door | 6.72 | Sqm | INR. | 2,769.36 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|------|-------|----------|
| | shutter). (Ref from CPWD SOR 2012 Item No: 9.118.1) | | | | |
| 280 | Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete : 150x125x27x5 mm (Ref from CPWD SOR 2012 Item No:9.73.1) | 45.00 | Each | INR. | 365.63 |
| 290 | Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete : 250x10 mm (Ref from CPWD SOR 2012 Item No:9.74.1) | 60.00 | Each | INR. | 314.58 |
| 300 | Providing & Fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete. (Ref from CPWD SOR 2012 Item No: 9.82) | 15.00 | Each | INR. | 82.26 |
| 310 | Providing & Fixing IS : 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete. (Ref from CPWD SOR 2012 Item No:9.84) | 9.00 | Each | INR. | 1,100.25 |
| 320 | Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete. (Ref from CPWD SOR 2012 Item No: 9.103) | 12.00 | Each | INR. | 791.38 |
| 330 | Providing & Fixing M.S. fan clamp type I or II of 16mm dia. M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete. (Ref from CPWD SOR 2012 Item No:10.17) | 16.00 | Each | INR. | 119.13 |
| 340 | Providing & Fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and stair case railing including applying a priming coat of approved steel primer. E.R.W. tubes. (Ref from CPWD SOR 2012 Item No:10.26.2) | 589.85 | Kg | INR. | 123.22 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|--------|
| 350 | 52mm thick cement concrete flooring with concrete hardener topping under layer 40mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6mm nominal size) by volume. Hardening compound is mixed @ 2 litre per 50kg of cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete. (Ref from CPWD SOR 2012 Item No:11.4) | 262.95 | Sqm | INR. | 324.69 |
| 360 | Cement plaster skirting (up to 30cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.18mm thick. (Ref from CPWD SOR 2012 Item No:11.6.1) | 67.26 | Sqm | INR. | 179.20 |
| 370 | Providing & Fixing 1st quality ceramic glazed wall 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 12mm 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. (Ref from CPWD SOR 2012 Item No:11.36) | 126.99 | Sqm | INR. | 732.51 |
| 380 | Providing and laying Ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown laid on 20mm thick bed of cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete. (Ref from CPWD 2012 Item No:11.38) | 48.72 | Sqm | INR. | 765.52 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|---------|-----|-------|--------|
| 390 | 12mm cement plaster of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.1.1) | 1015.42 | Sqm | INR. | 100.89 |
| 400 | 15mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.2.1) | 620.07 | Sqm | INR. | 115.83 |
| 410 | 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. (Ref from CPWD SOR 2012 Item No:13.83.2) | 1003.11 | Sqm | INR. | 68.87 |
| 420 | Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade : New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm). (Ref from CPWD SOR 2012 Item No: 13.47.1) | 632.38 | Sqm | INR. | 90.16 |
| 430 | Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture (Ref from CPWD SOR 2012 Item No:13.48.3) | 66.77 | Kg | INR. | 78.90 |
| 440 | Varnishing with varnish of approved brand and manufacture : Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish (Ref from CPWD SOR 2012 Item No:13.67.1) | 165.72 | Sqm | INR. | 90.33 |
| 450 | Providing & applying white cement based putty of average thickness 1mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Ref from CPWD SOR 2012 Item No:13.80) | 1585.56 | Sqm | INR. | 85.23 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|------|-------|--------|
| 460 | 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. (Ref from CPWD SOR 2012 Item No:10.25.2) | 2113.61 | Kg | INR. | 87.30 |
| 470 | Providing & fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS :5382 leaving 10 mm gap for thermal expansion, (i) Single socketed pipes-110 mm dia. (Ref from CPWD 2012 Item No:12.41.2) | 42.00 | M | INR. | 231.87 |
| 480 | Providing & fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.-Bend 87.5°-110 mm Bend (Ref from CPWD 2012 Item No:12.42.5.2) | 52.00 | Each | INR. | 175.89 |
| 490 | Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. Flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete. (Ref from CPWD 2012 Item No: 9.43). | 69.80 | M | INR. | 455.84 |
| 500 | Providing & Fixing curtain rods of 1.25mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete:5mm dia (Ref from CPWD 2012 Item No:9.46.3) | 69.80 | M | INR. | 467.72 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|------|-------|----------|
| 510 | Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 5.5 mm thick glass panes. (Ref from CPWD SOR 2012 Item No: 10.30.2) | 32.75 | Sqm | INR. | 937.63 |
| 520 | Providing and fixing bright finished brass window latch with necessary screws etc. complete : 300x16x5 mm (Ref from CPWD SOR 2012 Item No: 9.75.1) | 88.00 | Each | INR. | 224.81 |
| 530 | Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete. (Ref from CPWD SOR 2012 Item No: 9.93) | 88.00 | Each | INR. | 127.26 |
| 540 | Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid. (Ref from CPWD SOR 2012 Item No: 17.3.1) | 4.00 | Each | INR. | 4,730.25 |
| 550 | Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern. (Ref from CPWD SOR 2012 Item No: 17.4.1) | 3.00 | Each | INR. | 3,187.72 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|------|------|-------|----------|
| 560 | Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. / PVC flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required : Single squatting plate with 5 litre P.V.C. automatic flushing cistern. (Ref from CPWD SOR 2012 Item No: 17.6.1) | 1.00 | Each | INR. | 3,955.34 |
| 570 | Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked (Ref from CPWD SOR 2012 Item No: 17.7.9) | 4.00 | Each | INR. | 2,801.81 |
| 580 | Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan. (Ref from CPWD SOR 2012 Item No: 17.22) | 4.00 | Each | INR. | 105.35 |
| 590 | Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. 40 mm dia. (Ref from CPWD SOR 2012 Item No: 17.28.2.2) | 4.00 | Each | INR. | 75.76 |
| 600 | Providing and fixing 100 mm sand cast Iron grating for gully trap. (Ref from CPWD SOR 2012 Item No: 17.29) | 4.00 | Each | INR. | 27.57 |
| 610 | Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design. (Ref from CPWD SOR 2012 Item No: 17.30) | 4.00 | Each | INR. | 38.66 |
| 620 | 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 : Circular shape | 4.00 | Each | INR. | 819.57 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|------|-------|--------|
| | 450 mm dia. (Ref from CPWD SOR 2012 Item No: 17.32.1) | | | | |
| 630 | Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete. (Ref from CPWD SOR 2012 Item No: 17.33) | 4.00 | Each | INR. | 382.44 |
| 640 | Providing and fixing toilet paper holder : C.P. brass (Ref from CPWD SOR 2012 Item No: 17.34.1) | 4.00 | Each | INR. | 281.24 |
| 650 | Providing and fixing soil, waste and vent pipes : 100 mm dia Sand cast iron S&S pipe as per IS: 1729 (Ref from CPWD SOR 2012 Item No: 17.35.1.1) | 16.80 | M | INR. | 822.93 |
| 660 | Providing and fixing soil, waste and vent pipes : 75 mm diameter : Sand cast iron S&S pipe as per IS: 1729 (Ref from CPWD SOR 2012 Item No: 17.35.2.1) | 8.40 | M | INR. | 735.85 |
| 670 | Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. 100 mm dia: Sand cast iron S&S as per IS - 3989 (Ref from CPWD SOR 2012 Item No: 17.38.1.2) | 6.00 | Each | INR. | 395.89 |
| 680 | Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms. (Ref from CPWD SOR 2012 Item No: 17.71) | 4.00 | Each | INR. | 201.84 |
| 690 | Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour. 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms. (Ref from CPWD SOR 2012 Item No: 17.73.2) | 4.00 | Each | INR. | 465.31 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|------|-------|--------|
| 700 | Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80 OC, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge. Concealed work, including cutting chases and making good the wall etc. 1620 (20 mm OD) pipe. (Ref from CPWD SOR 2012 Item No: 18.2.2) | 80.00 | M | INR. | 381.71 |
| 710 | Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes, U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work. PN - 16 Pipe, 20 mm OD (SDR - 7.4). (Ref from CPWD SOR 2012 Item No: 18.6.2) | 100.00 | M | INR. | 135.32 |
| 720 | Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms. 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.50.1) | 12.00 | Each | INR. | 461.06 |
| 730 | Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.52.1) | 8.00 | Each | INR. | 478.03 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|------|-------|--------|
| 740 | Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.53.1) | 12.00 | Each | INR. | 503.59 |
| 750 | Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms (Ref from CPWD SOR 2012 Item No: 18.64) | 4.00 | Each | INR. | 126.36 |
| 760 | Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms. (Ref from CPWD SOR 2012 Item No: 18.65) | 4.00 | Each | INR. | 169.34 |
| 770 | Laying Brick Flat Soling (75mm thick) including grading the base and spreading 25mm thick sand bed at bottom and grouting soling with cement mortar (prop. 1:3) and carrying all materials from a distance of upto 30.00m. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 47.33) | 192.15 | Sqm | INR. | 442.51 |
| 780 | Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : 13.43.1 Water thinnable cement primer. (Ref from CPWD SOR 2012 Item No:13.43.1) | 1585.56 | Sqm | INR. | 30.88 |
| | Group A SEC-B | | | | |
| 10 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.8.1) | 95.62 | Cum | INR | 146.57 |
| 20 | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding | 95.62 | Cum | INR | 93.91 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|----------|
| | 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.25) | | | | |
| 30 | :Supplying and filling in plinth with sand under floors including, watering, ramming consolidating and dressing complete. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No.: 2.27 Composit item) | 29.61 | Cum | INR | 897.21 |
| 40 | Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.All kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.28.1) | 315.00 | Sqm | INR. | 10.48 |
| 50 | Supplying chemical emulsion in sealed containers including delivery as specified.Chlorpyriphos/ Lindane emulsifiable concentrate of 20% (Ref from CPWD SOR 2012 Item No:2.34.1) | 24.68 | L | INR | 208.39 |
| 60 | Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor : With Chlorpyriphos/Lindane E.C. 20% with 1% concentration (Ref from CPWD SOR 2012 Item No:2.35.3.1) | 49.35 | Sqm | INR | 98.90 |
| 70 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No: 4.1.5) | 9.41 | Cum | INR | 3,708.41 |
| 80 | :Centering shuttering including struttings, propping etc. and removal of form work for: Foundations, footings, bases for columns. | 15.64 | Sqm | INR | 187.04 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|----------|
| | (Ref from CPWD SOR 2012 Item No: 4.3.1) | | | | |
| 90 | Providing & Laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size). (Ref from CPWD SOR 2012 Item No: 4.11) | 90.41 | Sqm | INR | 211.17 |
| 100 | Extra for mixing water proofing material in cement concrete work @ 1 kg per 50 kg of cement.(Rate: Per kg of water proofing materials mixed @ 1 kg per 50 kg of cement) (Ref from CPWD SOR 2012 Item No:4.12) | 28.93 | Kg | INR | 39.62 |
| 110 | Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth. (Ref from CPWD SOR 2012 Item No:4.17) | 40.78 | Sqm | INR | 367.46 |
| 120 | Providing & Laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level : 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No:5.1.2) | 18.36 | Cum | INR | 3,676.60 |
| 130 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No:5.2.2) | 4.86 | Cum | INR | 4,394.86 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|-----|-------|----------|
| 140 | Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 5.3) | 24.45 | Cum | INR | 4,672.05 |
| 150 | Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete. (Ref from CPWD SOR 2012 Item No:5.9.1) | 36.00 | Sqm | INR | 187.04 |
| 160 | Centering and shuttering including strutting, propping etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform. (Ref from CPWD SOR 2012 Item No:5.9.3) | 97.36 | Sqm | INR | 348.76 |
| 170 | Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers. (Ref from CPWD SOR 2012 Item No:5.9.5) | 121.85 | Sqm | INR | 293.90 |
| 180 | Centering and shuttering including strutting, propping etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts. (Ref from CPWD SOR 2012 Item No:5.9.6) | 88.90 | Sqm | INR | 409.73 |
| 190 | Centering and shuttering including strutting, propping etc and removal or form tor: Stairs, (excluding landings) except spiral-staircases. (Ref from CPWD SOR 2012 Item No:5.9.7) | 12.78 | Sqm | INR | 365.68 |
| 200 | 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 (Ref from CPWD SOR 2012 Item No:5.9.16.1) | 73.75 | M | INR | 111.45 |
| 210 | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo- | 5017.81 | Kg | INR | 69.76 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|-----------|
| | Mechanically Treated bars. (Ref from CPWD SOR 2012 Item No:5.22.6) | | | | |
| 220 | Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand) (Ref from CPWD SOR 2012 Item No:6.1.1) | 7.74 | Cum | INR | 5,145.42 |
| 230 | Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : (Ref from CPWD SOR 2012 Item No:6.4.1) | 42.05 | Cum | INR | 5,772.55 |
| 240 | Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand) (Ref from CPWD SOR 2012 Item No:6.13.2) | 1.14 | Sqm | INR | 675.58 |
| 250 | Providing Wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :Second class teak wood (Ref from CPWD SOR 2012 Item No:9.1.1) | 0.41 | Cum | INR | 96,170.97 |
| 260 | Providing & Fixing 35mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B) including ISI marked black enameled M.S. butt hinges with necessary screws as per directions of Engineer-in-Charge and panelling with panels of:12mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination) grade - 1 medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823 Grade -1, Type II marked: (Ref from CPWD SOR 2012 Item No:9.6.3) | 9.35 | Sqm | INR | 2,669.62 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|------|-------|----------|
| 270 | 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter). (Ref from CPWD SOR 2012 Item No: 9.118.1) | 1.89 | Sqm | INR | 2,769.36 |
| 280 | Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete : 150x125x27x5 mm (Ref from CPWD SOR 2012 Item No:9.73.1) | 15.00 | Each | INR | 365.63 |
| 290 | Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete : 250x10 mm (Ref from CPWD SOR 2012 Item No:9.74.1) | 20.00 | Each | INR | 314.58 |
| 300 | Providing & Fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete. (Ref from CPWD SOR 2012 Item No: 9.82) | 5.00 | Each | INR | 82.26 |
| 310 | Providing & Fixing IS : 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with | 3.00 | Each | INR | 1,100.25 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|------|-------|--------|
| | double speed adjustment with necessary accessories and screws etc. complete. (Ref from CPWD SOR 2012 Item No:9.84) | | | | |
| 320 | Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete. (Ref from CPWD SOR 2012 Item No: 9.103) | 4.00 | Each | INR | 791.38 |
| 330 | Providing & Fixing M.S. fan clamp type I or II of 16mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete. (Ref from CPWD SOR 2012 Item No:10.17) | 7.00 | Each | INR | 119.13 |
| 340 | Providing & Fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and stair case railing including applying a priming coat of approved steel primer. E.R.W. tubes. (Ref from CPWD SOR 2012 Item No:10.26.2) | 294.93 | Kg | INR | 123.22 |
| 350 | 52mm thick cement concrete flooring with concrete hardener topping under layer 40mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6mm nominal size) by volume. Hardening compound is mixed @ 2 litre per 50kg of cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete. (Ref from CPWD SOR 2012 Item No:11.4) | 50.70 | Sqm | INR | 324.69 |
| 360 | Cement plaster skirting (up to 30cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.18mm thick. | 23.01 | Sqm | INR | 179.20 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|--------|
| | (Ref from CPWD SOR 2012 Item No:11.6.1) | | | | |
| 370 | Providing & Fixing 1st quality ceramic glazed wall 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 12mm 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. (Ref from CPWD SOR 2012 Item No:11.36) | 16.80 | Sqm | INR | 732.51 |
| 380 | Providing and laying Ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown laid on 20mm thick bed of cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete. (Ref from CPWD 2012 Item No:11.38) | 3.75 | Sqm | INR | 765.52 |
| 390 | 12mm cement plaster of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.1.1) | 304.75 | Sqm | INR | 100.89 |
| 400 | 15mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.2.1) | 198.66 | Sqm | INR | 115.83 |
| 410 | 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. (Ref from CPWD SOR 2012 Item No:13.83.2) | 301.62 | Sqm | INR | 68.87 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|--------|
| 420 | Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade : New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm). (Ref from CPWD SOR 2012 Item No: 13.47.1) | 201.79 | Sqm | INR | 90.16 |
| 430 | Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture (Ref from CPWD SOR 2012 Item No:13.48.3) | 20.19 | Kg | INR | 78.90 |
| 440 | Varnishing with varnish of approved brand and manufacture : Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish (Ref from CPWD SOR 2012 Item No:13.67.1) | 73.47 | Sqm | INR | 90.33 |
| 450 | Providing & applying white cement based putty of average thickness 1mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Ref from CPWD SOR 2012 Item No:13.80) | 301.62 | Sqm | INR | 85.23 |
| 460 | 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. (Ref from CPWD SOR 2012 Item No:10.25.2) | 261.45 | Kg | INR | 87.30 |
| 470 | Providing & fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS :5382 leaving 10 mm gap for thermal expansion, (i) Single socketed pipes-110 mm dia. (Ref from CPWD 2012 Item No:12.41.2) | 21.60 | M | INR | 231.87 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|------|-------|--------|
| 480 | Providing & fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.-Bend 87.5°-110 mm Bend (Ref from CPWD 2012 Item No:12.42.5.2) | 16.00 | Each | INR | 175.89 |
| 490 | Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. Flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete. (Ref from CPWD 2012 Item No: 9.43). | 11.75 | M | INR | 455.84 |
| 500 | Providing & Fixing curtain rods of 1.25mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete:5mm dia (Ref from CPWD 2012 Item No:9.46.3) | 11.75 | M | INR | 467.72 |
| 510 | Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 5.5 mm thick glass panes. (Ref from CPWD SOR 2012 Item No: 10.30.2) | 9.15 | Sqm | INR | 937.63 |
| 520 | Providing and fixing bright finished brass window latch with necessary screws etc. complete : 300x16x5 mm (Ref from CPWD SOR 2012 Item No: 9.75.1) | 20.00 | Each | INR | 224.81 |
| 530 | Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete. (Ref from CPWD SOR 2012 Item No: 9.93) | 20.00 | Each | INR | 127.26 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|------|------|-------|----------|
| 540 | Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid. (Ref from CPWD SOR 2012 Item No: 17.3.1) | 1.00 | Each | INR | 4,730.25 |
| 550 | Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern. (Ref from CPWD SOR 2012 Item No: 17.4.1) | 1.00 | Each | INR | 3,187.72 |
| 560 | Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked (Ref from CPWD SOR 2012 Item No: 17.7.9) | 1.00 | Each | INR | 2,801.81 |
| 570 | Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan. (Ref from CPWD SOR 2012 Item No: 17.22) | 1.00 | Each | INR | 105.35 |
| 580 | Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. 40 mm dia (Ref from CPWD SOR 2012 Item No: 17.28.2.2) | 1.00 | Each | INR | 75.76 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|------|------|-------|--------|
| 590 | Providing and fixing 100 mm sand cast Iron grating for gully trap. (Ref from CPWD SOR 2012 Item No: 17.29) | 1.00 | Each | INR | 27.57 |
| 600 | Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design. (Ref from CPWD SOR 2012 Item No: 17.30) | 1.00 | Each | INR | 38.66 |
| 610 | 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 : Circular shape 450 mm dia (Ref from CPWD SOR 2012 Item No: 17.32.1) | 1.00 | Each | INR | 819.57 |
| 620 | Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete. (Ref from CPWD SOR 2012 Item No: 17.33) | 1.00 | Each | INR | 382.44 |
| 630 | Providing and fixing toilet paper holder : C.P. brass (Ref from CPWD SOR 2012 Item No: 17.34.1) | 1.00 | Each | INR | 281.24 |
| 640 | Providing and fixing soil, waste and vent pipes : 100 mm dia Sand cast iron S&S pipe as per IS: 1729 (Ref from CPWD SOR 2012 Item No: 17.35.1.1) | 4.20 | M | INR | 822.93 |
| 650 | Providing and fixing soil, waste and vent pipes : 75 mm diameter : Sand cast iron S&S pipe as per IS: 1729 (Ref from CPWD SOR 2012 Item No: 17.35.2.1) | 4.20 | M | INR | 735.85 |
| 660 | Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. 100 mm dia: Sand cast iron S&S as per IS - 3989 (Ref from CPWD SOR 2012 Item No: 17.38.1.2) | 3.00 | Each | INR | 395.89 |
| 670 | Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms. | 1.00 | Each | INR | 201.84 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|------|-------|--------|
| | (Ref from CPWD SOR 2012 Item No: 17.71) | | | | |
| 680 | Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour. 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms. (Ref from CPWD SOR 2012 Item No: 17.73.2) | 1.00 | Each | INR | 465.31 |
| 690 | Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80 OC, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge. Concealed work, including cutting chases and making good the wall etc. 1620 (20 mm OD) pipe. (Ref from CPWD SOR 2012 Item No: 18.2.2) | 20.00 | M | INR | 381.71 |
| 700 | Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes, U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work. PN - 16 Pipe, 20 mm OD (SDR - 7.4). (Ref from CPWD SOR 2012 Item No: 18.6.2) | 100.00 | M | INR | 135.32 |
| 710 | Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than | 2.00 | Each | INR | 461.06 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|------|-------|--------|
| | 810 gms. 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.50.1) | | | | |
| 720 | Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.52.1) | 1.00 | Each | INR | 478.03 |
| 730 | Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore. (Ref from CPWD SOR 2012 Item No: 18.53.1) | 2.00 | Each | INR | 503.59 |
| 740 | Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms (Ref from CPWD SOR 2012 Item No: 18.64) | 1.00 | Each | INR | 126.36 |
| 750 | Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms. (Ref from CPWD SOR 2012 Item No: 18.65) | 1.00 | Each | INR | 169.34 |
| 760 | Laying Brick Flat Soling (75mm thick) including grading the base and spreading 25mm thick sand bed at bottom and grouting soling with cement mortar (prop. 1:3) and carrying all materials from a distance of upto 30.00m. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 47.33) | 50.70 | Sqm | INR | 442.51 |
| 770 | Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : 13.43.1 Water thinnable cement primer. (Ref from CPWD SOR 2012 Item No:13.43.1) | 301.62 | Sqm | INR | 30.88 |
| | Group A SEC-C | | | | |
| 10 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm | 543.52 | M3 | INR. | 146.57 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|--------|
| | on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.8.1) | | | | |
| 20 | 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. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No.: 2.25) | 271.76 | M3 | INR. | 93.91 |
| 30 | Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No.: 2.28.1) | 250.00 | M2 | INR. | 10.48 |
| 40 | Collecting / excavating sand, soil, silt, ordinary earth from any source, load into lorries, transport it to distant place of work including procuring earth and laying in layer of 150mm thickness and dry ramming, profile properly made for taking measurement, including all measurable lead upto 30m and lift as required. (The contractor shall be responsible for all formalities of supply of earth such as purchase of land including royalties, monopoly / other statutory taxes as required from any distance.) (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 41.7.2) | 105.30 | M3 | INR. | 287.24 |
| 50 | :Supplying and filling in plinth with sand under floors including, watering, ramming consolidating and dressing complete. (Ref from CPWD SOR 2012 Item No.: 2.27) | 17.02 | M3 | INR. | 897.21 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|----------|
| 60 | Providing & Laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level: 1:3:6 (1 Cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (Ref from CPWD 2012 Item No:4.1.5) | 8.72 | M3 | INR. | 3,708.41 |
| 70 | :Centering shuttering including struttings, propping etc. and removal of form work for: Foundations, footings, bases for columns. (Ref from CPWD SOR 2012 Item No: 4.3.1) | 24.00 | Sqm | INR. | 187.04 |
| 80 | Providing & Laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size). (Ref from CPWD SOR 2012 Item No: 4.11) | 6.58 | M2 | INR. | 211.17 |
| 90 | Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth. (Ref from CPWD SOR 2012 Item No:4.17) | 37.80 | Sqm | INR. | 367.46 |
| 100 | Providing & Laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level : 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD 2012 Item No:5.1.2) | 13.62 | M3 | INR. | 3,676.60 |
| 110 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD Item No:5.2.2) | 2.04 | M3 | INR. | 4,394.86 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|-----|-------|----------|
| 120 | Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete. (Ref from CPWD 2012 Item NO:5.9.1) | 50.41 | M2 | INR. | 187.04 |
| 130 | Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers. (Ref from CPWD Item NO:5.9.5) | 7.28 | M2 | INR. | 293.90 |
| 140 | Centering and shuttering including strutting, propping etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts. (Ref from CPWD 2012 Item No:5.9.6) | 30.72 | M2 | INR. | 409.73 |
| 150 | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars. (Ref from CPWD 2012 Item No:5.22.6) | 1061.93 | KG | INR. | 69.76 |
| 160 | Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand) (Ref from CPWD 2012 Item No:6.1.1) | 21.56 | M3 | INR. | 5,145.42 |
| 170 | Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand) (Ref from CPWD Item NO:6.4.1) | 10.21 | M3 | INR. | 5,772.55 |
| 180 | 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. (Ref from CPWD SOR 2012 Item No:10.25.2) | 652.32 | KG | INR. | 87.30 |
| 190 | Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 5.5 mm thick glass panes. (Ref from CPWD | 3.39 | M2 | INR. | 937.63 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|-----------|
| | SOR 2012 Item No: 10.30.2) | | | | |
| 200 | Providing Wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :Second class teak wood (Ref from CPWD SOR 2012 Item No:9.1.1) | 0.76 | M3 | INR. | 96,170.97 |
| 210 | Providing & fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:30mm thick including ISI marked Stainless Steel butt hinges with necessary screws. (Ref from CPWD 2012 Item No:9.21.2) | 16.17 | M2 | INR. | 1,573.52 |
| 220 | Providing & Erecting corrugated G.S. sheet roofing including vertical/curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required-0.63 mm thick with zinc coating not less than 275gm/m2 (Ref from CPWD Item No:12.1.3) | 54.60 | M2 | INR. | 702.96 |
| 230 | Providing & Fixing insulating board ceiling of approved quality with necessary nails etc. complete (framework to be paid separately):flame retardant face insulating board- 12 mm thick (ref from CPWD Item No:12.24.1.1) | 22.25 | M2 | INR. | 569.54 |
| 240 | 12mm cement plaster of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD 2012 Item No:13.1.1) | 119.20 | M2 | INR. | 100.89 |
| 250 | 15mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 | 107.55 | M2 | INR. | 115.83 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|--------|
| | cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.2.1) | | | | |
| 260 | 15mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :1:4 (1 cement : 4 fine sand) (Ref from CPWD 2012 Item No:13.8.2) | 104.48 | M2 | INR. | 136.36 |
| 270 | Providing & Fixing 1st quality ceramic glazed wall 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 12mm 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. (Ref from CPWD 2012 Item No:11.36) | 113.17 | M2 | INR. | 732.51 |
| 280 | Providing and laying Ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown laid on 20mm thick bed of cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete. (Ref from CPWD 2012 Item No:11.38) | 51.30 | M2 | INR. | 765.52 |
| 290 | Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade: New work (two or more coats) over and including priming coat with cement primer (Ref from CPWD 2012 Item No:13.41.1) | 88.80 | M2 | INR. | 74.75 |
| 300 | Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm). (ref from CPWD 2012 Item No:13.44.1) | 88.80 | M2 | INR. | 50.38 |
| 310 | Applying priming coat: With ready mixed pink or Grey primer of approved brand and | 47.16 | M2 | INR. | 28.97 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|--------|
| | manufacture on wood work (hard and soft wood) (Ref from CPWD 2012 Item No:13.50.1) | | | | |
| 320 | Applying priming coat: With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works (Ref from CPWD 2012 Item No:13.50.3) | 6.79 | M2 | INR. | 23.20 |
| 330 | Painting with oil type wood preservative of approved brand and manufacture: New work (two or more coats) (Ref from CPWD 2012 Item No:13.57.1) | 47.16 | M2 | INR. | 20.96 |
| 340 | 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. (Ref from CPWD 2012 Item No:13.62.1) | 53.95 | M2 | INR. | 88.31 |
| 350 | Providing & Laying Brick Flat Soling (75mm thick) including grading the base and spreading 25mm thick sand bed at bottom and grouting soling with cement mortar (prop. 1:3) and carrying all materials from a distance of upto 30.00m. (Ref from CPWD 2012 Item No:47.33) | 89.54 | M2 | INR. | 442.51 |
| 360 | 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 @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration. (Ref from CPWD 2012 Item No:2.35.1.1) | 28.39 | M | INR. | 13.22 |
| 370 | Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20% (Ref from CPWD 2012 Item No:2.34.1) | 5.00 | L | INR. | 208.39 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|----------|
| 380 | Providing & Fixing water closet squatting pan (Indian type W.C. pan) with 100mm Sand Cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required: White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.(Ref from CPWD 2012 Item No:17.1.1) | 5.00 | EA | INR. | 3,321.87 |
| 390 | Providing & Fixing wash basin with C.I. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Surgeon type wash basin of size 660x460mm with single 15mm CP. brass pillar taps with elbow operated levers ISI marked. (Ref from CPWD 2012 Item No:17.7.9) | 2.00 | EA | INR. | 2,801.81 |
| 400 | Providing & Fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete. 10 litre capacity - White (Ref from CPWD 2012 Item No:17.18.1) | 5.00 | EA | INR. | 932.31 |
| 410 | Providing & fixing P.V.C. waste pipe for sink or wash basin including PVC. waste fittings complete. Flexible pipe: 32mm dia. (Ref from CPWD 2012 Item No:17.28.2.1) | 2.00 | EA | INR. | 73.18 |
| 420 | Providing & Fixing 600x450mm beveled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. (Ref from CPWD 2012 Item No:17.31) | 1.00 | EA | INR. | 755.41 |
| 430 | Providing & Fixing bright finished brass parliamentary hinges with necessary screws etc. complete: 150x125x27x5mm (Ref from CPWD 2012 Item No:9.73.1) | 33.00 | EA | INR. | 365.63 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|--------|
| 440 | Providing & Fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10mm (Ref from CPWD Item No:9.74.1) | 22.00 | EA | INR. | 314.58 |
| 450 | Providing & Fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10mm (Ref from CPWD Item No:9.81.1) | 22.00 | EA | INR. | 190.07 |
| 460 | :Providing & Fixing G.I. inlet connection for flush pipe connecting with W.C. pan.(Ref from CPWD 2012 Item No:17.22) | 5.00 | EA | INR. | 105.35 |
| 470 | :Providing & Fixing 100mm sand cast Iron grating for gully trap. (Ref from CPWD 2012 Item No:17.29) | 7.00 | EA | INR. | 27.57 |
| 480 | :Providing & Fixing in position 25mm diameter mosquito proof coupling of approved municipal design. (Ref from CPWD 2012 Item No:17.30) | 2.00 | EA | INR. | 38.66 |
| 490 | Providing & Fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40mm long screws, rawl plugs etc., complete.(Ref from CPWD 2012 Item No:17.33) | 5.00 | EA | INR. | 382.44 |
| 500 | Providing & Fixing soil, waste and vent pipes: 100mm dia. Sand cast iron S&S pipe as per IS: 1729. (Ref from CPWD Item No:17.35.1.1) | 30.00 | M | INR. | 822.93 |
| 510 | Providing & Fixing soil, waste and vent pipes: 75mm diameter: Sand cast iron S&S pipe as per IS: 1729. (Ref from CPWD 2012 Item No:17.35.2.1) | 20.00 | M | INR. | 735.85 |
| 520 | Providing & Fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete 100mm:Sand cast iron S&S as per IS - 3989 (Ref from CPWD 2012 Item No:17.38.1.2) | 10.00 | EA | INR. | 395.89 |
| 530 | Providing & Fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials | 2.00 | EA | INR. | 201.84 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|--------|
| | with snap fittings of approved quality and colour, weighing not less than 105 gms. (Ref from CPWD 2012 Item No:17.71) | | | | |
| 540 | Providing & Fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour. 600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gms (Ref from CPWD Item No:17.73.2) | 5.00 | EA | INR. | 465.31 |
| 550 | Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : 20mm dia. nominal bore. (Ref from CPWD 2012 Item No:18.11.2) | 30.00 | M | INR. | 281.63 |
| 560 | 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 40mm nominal bore (Ref from CPWD 2012 Item No:18.13.1) | 20.00 | EA | INR. | 310.83 |
| 570 | Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) : 15mm nominal bore (Ref from CPWD 2012 Item NO:18.46.1) | 20.00 | EA | INR. | 134.04 |
| 580 | Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms. 15mm nominal bore. (Ref from CPWD 2012 Item No:18.50.1) | 12.00 | EA | INR. | 461.06 |
| 590 | Providing & Fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.15mm nominal bore. (Ref from CPWD 2012 Item No:18.52.1) | 7.00 | EA | INR. | 478.03 |
| 600 | Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to | 10.00 | EA | INR. | 503.59 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|----------|
| | IS:893115mm nominal bore (Ref from CPWD 2012 Item No:18.53.1) | | | | |
| 610 | Providing & Fixing PTMT swivelling shower, 15mm nominal bore, weighing not less than 40gms. (Ref from CPWD 2012 Item No:18.64) | 5.00 | EA | INR. | 126.36 |
| 620 | Providing & Fixing PTMT Soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms. (Ref from CPWD 2012 Item No:18.65) | 7.00 | EA | INR. | 169.34 |
| 630 | Providing & Fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required: Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern. (Ref from CPWD 2012 Item No:17.4.2) | 1.00 | EA | INR. | 5,214.39 |
| 640 | Providing & Fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required: Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern. (Ref from CPWD 2012 Item No:17.4.3) | 1.00 | EA | INR. | 6,981.85 |
| | Group A SEC-D | | | | |
| 10 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and | 231.38 | Cum | INR. | 146.57 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|-----|-------|----------|
| | ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.8.1) | | | | |
| 20 | :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. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.25) | 231.38 | cum | INR. | 93.91 |
| 30 | :Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.28.1) | 1500.00 | sqm | INR. | 10.48 |
| 40 | :Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.31) | 1500.00 | sqm | INR. | 5.40 |
| 50 | :Providing & laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level: 1:3:6 (1 Cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 4.1.5) | 11.88 | cum | INR. | 3,708.41 |
| 60 | :Centering shuttering including struttings, propping etc. and removal of form work for: Foundations, footings, bases for columns. (Ref from CPWD SOR 2012 Item No: 4.3.1) | 34.75 | sqm | INR. | 187.04 |
| 70 | :Providing & laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level : 1:1.5:3 (1 cement: 1.5 coarse | 38.49 | cum | INR. | 3,676.60 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|---------|-----|-------|----------|
| | sand : 3 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 5.1.2) | | | | |
| 80 | :Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 5.2.2) | 10.05 | cum | INR. | 4,394.86 |
| 90 | :Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size). (Ref from CPWD SOR 2012 Item No: 5.3) | 7.69 | cum | INR. | 4,672.05 |
| 100 | Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete. (Ref from CPWD SOR 2012 Item No: 5.9.1) | 132.05 | sqm | INR. | 187.04 |
| 110 | Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers. (Ref from CPWD SOR 2012 Item No: 5.9.5) | 148.67 | sqm | INR. | 293.90 |
| 120 | Centering and shuttering including strutting, propping etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts. (Ref from CPWD SOR 2012 Item No: 5.9.6) | 133.92 | sqm | INR. | 409.73 |
| 130 | :Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars. (Ref from CPWD | 6194.01 | kg | INR. | 69.76 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|---------|-----|-------|----------|
| | SOR 2012 Item No: 5.22.6) | | | | |
| 140 | :Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand) (Ref from CPWD SOR 2012 Item No: 6.1.1) | 43.47 | cum | INR. | 5,145.42 |
| 150 | Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : (Ref from CPWD SOR 2012 Item No:6.4.1) | 69.55 | cum | INR. | 5,772.55 |
| 160 | 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. (Ref from CPWD SOR 2012 Item No:10.25.2) | 2779.00 | Kg | INR. | 87.30 |
| 170 | :15mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No: 13.2.1) | 306.00 | sqm | INR. | 115.83 |
| 180 | Providing & Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand) :Flush / Ruled / Struck or weathered pointing. (Ref from CPWD SOR 2012 Item No: 13.31.1) | 306.00 | sqm | INR. | 77.43 |
| 190 | Finishing walls with water proofing cement paint of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm) (Ref from CPWD SOR 2012 Item No: 13.44.1) | 306.00 | sqm | INR. | 50.38 |
| 200 | :Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge. In cement mortar (Ref from CPWD SOR 2012 Item No: 15.7.4) | 57.96 | cum | INR. | 634.99 |
| 210 | Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable | 8.75 | Cum | INR. | 1,097.11 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|--------|
| | material within 50 metres lead as per direction of Engineer-in-Charge. (Ref from CPWD SOR 2012 Item No: 15.3) | | | | |
| 220 | Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia. 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately) (Ref from CPWD SOR 2012 Item No: 16.53) | 89.00 | m | INR. | 301.69 |
| | Group A SEC-E | | | | |
| 10 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. In all kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.8.1) | 65.25 | Cum | INR | 146.57 |
| 20 | 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. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.25) | 65.25 | Cum | INR | 93.91 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|----------|
| 30 | Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil. (Ref. OIL schedule W.E.F. from 04.10.2014 of Item No. 2.28.1) | 53.46 | Sqm | INR | 10.48 |
| 40 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No: 4.1.5) | 5.19 | Cum | INR. | 3,708.41 |
| 50 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto floor five level excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) (Ref from CPWD SOR 2012 Item No:5.2.2) | 2.07 | Cum | INR | 4,394.86 |
| 60 | Centering and shuttering including strutting, propping etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts. (Ref from CPWD SOR 2012 Item No:5.9.6) | 5.62 | Sqm | INR | 409.73 |
| 70 | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars. (Ref from CPWD SOR 2012 Item No:5.22.6) | 156.30 | Kg | INR | 69.76 |
| 80 | 12mm cement plaster of mix:1:4 (1 cement : 4 fine sand) (Ref from CPWD SOR 2012 Item No:13.1.1) | 45.66 | Sqm | INR | 100.89 |
| 90 | Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : (Ref from CPWD SOR 2012 Item No:6.4.1) | 9.78 | Cum | INR | 5,772.55 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|---------|
| | Group B SEC-A | | | | |
| 10 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in surface/recessed using medium grade ISI approved 25mm size PVC conduit & accessories, suitable GI box as required.(Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)). Concealed Point wiring includes laying of PVC conduit in the roof/Wall also. Make of cable: Havells/Finolex/L&T/Polycab or any BIS approved make; Make of PVC Casing Capping: AKG/Presto Plast or any BIS approved make. | 79.00 | P | INR | 1259.31 |
| 20 | Wiring for light plug point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 25mm size PVC conduit & accessories, etc as required.(Colour codes – Phase –R/Y/B; Neutral – Black & Earth- Green)).Concealed wiring includes laying of PVC conduit in the roof/Wall also.Make of cable: Havells/Finolex/L&T/Polycab or any BIS approved make; Make of PVC Casing Capping: AKG/Presto Plast or or any BIS approved make. | 175.00 | M | INR | 189.12 |
| 30 | Wiring for circuit/ sub main from MCB DB to desired Switch Board with 3 nos Single core 2.5 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 25mm size PVC conduit & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth-Green)).Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also. Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make,Make of PVC conduit : AKG/PLaza/Richa or or any BIS approved make | 360.00 | M | INR | 238.82 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|--------|
| 40 | Wiring for circuit/ sub main/Power wiring from MCB DB to desired Switch Board/power point with 3 nos Single core 4 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 25mm size PVC Conduit & accessories, (Colour codes : Phase – R/Y/B; Neutral –Black & Earth- Green). Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make ,Make of PVC conduit : AKG/PLaza/Richa or any BIS approved make. | 160.00 | M | INR | 301.01 |
| 50 | Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 3 nos Single core 10 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 32mm size PVC conduit & accessories, (Colour codes: Phases - R, Y, B; Neutral –Black & 2 Nos Earth- Green)).Concealed sub main wiring includes laying of PVC conduit in the roof/Wall also. Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make, Make of PVC conduit : AKG/PLaza/Richa or any BIS approved make. | 150.00 | M | INR | 697.15 |
| 60 | Modular type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal. Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate.The configurations for the relevant plate are defined as under: | 12.00 | NO | INR | 218.85 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|--------|
| | <p>A- Number of Rows: 1.</p> <p>B- Number of openings:3.</p> <p>C- Size of opening.: 1M Internal connection of wire is included in the item.Make: Legrand/L&T/MK/Scheider/Crabtree/Indo Asian-Elvira.</p> | | | | |
| 70 | <p>Modular type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal.Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate.</p> <p>The configurations for the relevant plate are defined as under:</p> <p>A- Number of Rows: 1</p> <p>B- Number of openings:8</p> <p>C- Size of opening.1M Make of Modular item: Legrand/L&T/MK /Scheider/ Crabtree?Indo Asian- Elvira.</p> | 12.00 | NO | INR | 387.27 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|--------|
| 80 | <p>Supplying and fixing suitable size GI box with modular plate and cover in front on recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable</p> <p>for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.Make of Modular item: Legrand/L&T/MK /Schneider/Crabtree/Indo Asian-Elvira.</p> | 35.00 | NO | INR | 359.30 |
| 90 | <p>Supplying and fixing 4 module GI box with modular plate and cover in front on recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16</p> <p>amps modular switch, connection etc. as required.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&3.The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets</p> | 8.00 | NO | INR | 491.71 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|---------|
| | shall be as per IS:1293.Make of Modular item ::Legrand/L&T/MK/Scheider/Crabtree/Indo Asian-Elvira . | | | | |
| 100 | Supply, installation and fixing of 6 A Modular switch in the existing modular boxes.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007 Make of Modular switch :Legrand/L&T/MK/Scheider/Crabtree/Indo Asian-Elvira. | 79.00 | NO | INR | 85.76 |
| 110 | Supplying and fixing 3 pin, 5 amp ceiling rose of BIS marked.Make:Richa/Presto Plast/Anchor or any BIS marked ceiling rose | 4.00 | NO | INR | 52.99 |
| 120 | Supply, installation and wiring of 1 Module step Fan Regulator 100W.Electronic Fan regulator step type (Capacitor Type) with minimum 4 steps(5 position) flush mounting type to IS:11037/1984(Reaffirm 2005) suitable for electric ceiling fan of voltage 230V, AC,50 Hz having wattage up to 100 Watts Max. The capacitor used shall be of standard make. Make:Legrand/L&T/Crabtree/Schneider/Indo Asian-Elvira . | 13.00 | NO | INR | 358.71 |
| 130 | Supply ,Installation and commissioning of 1400 mm sweep ceiling fan without modular step regulator, including wiring the down rods of standard length (upto 30 cm) with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable.Fan shall have double bearing with minimum air delivery shall be 230 CMM. Minimum Power input shall be 60 W .Make of fan: Havell/Crompton Greaves/Bajaj/Orient. | 13.00 | NO | INR | 2829.91 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|---------|
| 140 | Supply ,Installation and commissioning of 300 mm sweep, 900±10% PM heavy duty metallic exhaust fan in the existing opening, including making the hole to suit the size of the above fan, making good to the damage, connection using 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable, testing, commissioning etc. as required. Minimum power input shall be 50 W.Pre-lubricated double ball bearing for maintenance free running and conforming to IS 2312-1967 with latest amendment.Make of fan: Havells/Crompton Greaves/Bajaj/Orient | 5.00 | NO | INR | 4468.69 |
| 150 | Supply,Installation, testing and commissioning of high performance suspended mounting, LM-79 certified luminaire & LM-80 certified LED with alumimium extruded channel & white powder coating fitting. Fitting shall be with high translucent diffuser & white optics reflector for glare free light distribution with 40 +/-10% w system wattage, system efficacy >85 lm/W.THD <10% and PF is >0.9. Colour temperature shall be in between 5500 to 6500 K. The driver shall be external type and minimum burning hours shall be 40000 Hrs.The fitting shall be complete with all accessories etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 75 cm length, painting and wiring the down rods and connection with 1.5 sq. mm FR PVC insulated,copper conductor, single core cable and earthing etc. as required. Make: Philips /Crompton /GE/Bajaj/Havells/Surya/Syska/HPL. For rooms. | 24.00 | NO | INR | 7891.61 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|---------|
| 160 | Supply, Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 4ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1800 Lumen with max.20 +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours. The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%. Make: Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL . For Balcony, Stairs, Dressing Room. | 29.00 | NO | INR | 1111.20 |
| 170 | Supply, Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 2ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1800 Lumen with max.20 +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours. The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%. Make: Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL . For Toilets. | 8.00 | NO | INR | 948.59 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|------|-----|-------|----------|
| 180 | Supplying, installation and fixing of 16 way as outgoing with double door , single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface , complete with 100 A tinned 12 way copper busbar, 12 way neutral busbar, 12 way earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required.DB shall have following as incomer :63 A RCBO, sensitivity 100mA -1 nos.Outgoings are 10 A MCB ,C curve-6 nos,20 A MCB,C curve- 6 nos.Make of RCBO, MCBs and box shall be of same make and shall be Schneider/ Siemens/Indo Asian/Legrand. DB shall be similar to Legrand cat no- 6077 13 | 5.00 | NO | INR | 11691.52 |
| 190 | <p>SHORT TEXT: 160 A, 8 W, VTPN MCCB DB</p> <p>Detailed description:</p> <p>Supply of 3 Phase, 8 WAY, vertical TPN MCCB DB, as per the following specifications:</p> <p>A. Incoming:</p> <p>a. 160 A Thermal adjustable MCCB: 1 no</p> <p>b. Rating: 4 pole, 160 A, 25kA, 50Hz, 415VAC</p> <p>c. Protection: Thermal and Magnetic Protection</p> <p>d. Make & Model : Legrand, Cat no 4200 57 or equivalent</p> <p>B. Outgoing Feeders:</p> <p>a. 63 A TP C curve MCB: 4nos</p> <p>b. 63 A SP C curve MCB: 12 nos</p> <p>c. All outgoing MCBs shall be 'C' curve,</p> | 1.00 | NO | INR | 39389.81 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|-------|-----|-------|--------|
| | <p>240v AC, 10kA breaking capacity, with DMC housing, suitable for class-II tropicalisation (as per IEC) & approved by ISI or IEC. MCBs shall have integrated label holder, biconnect upper & lower terminals & air channels for low temperature rise.</p> <p>C. Bus bar: 250 A, Tinned Copper</p> <p>D. Constructional details of DB:</p> <p>DB shall be as per IS-8623 with latest amendment. DB shall have external earth terminal & mounting holes. Cable ties & wire leads for wiring incomer MCCB to respective phase & neutral buses shall be supplied and wired with single core 35 sqmm stranded copper cable with tinned copper lugs. Enclosure shall be IP-43& IK-09 with double door. DB shall have detachable cable entry gland plate on top and bottom side for keeping spare length of cables. All wires inside DB shall have ferrules for identification of circuit number. All unused openings shall be fitted with Blanking Plates. The DB shall be provided with 250 amp tinned copper bus bar for phase & neutral. Neutral & Earth bar shall be 8 way each & suitable for termination of wires with pin type cable lugs</p> <p>(MAKE & Model No: Legrand, Cat no. 6079 14 or Equivalent Schneider/Siemens/Indo Asian/ABB/L&T</p> | | | | |
| 200 | Supplying and fixing metal box of 200 mm X 250 mm X 100 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required. | 11.00 | NO | INR | 281.36 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|-------|-----|-------|---------|
| 210 | Supplying and fixing metal box of 150 mm X 150 mm X 60 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required. | 24.00 | NO | INR | 179.34 |
| 220 | Supplying and fixing of Mild steel hexagonal/Round fan box with 12mm Rod ,18G in the fan position. Make: Richa/Anchor/AKG or or any BIS approved make | 13.00 | NO | INR | 213.19 |
| 230 | Earthing with G.I. earth pipe 3 metre long, 100 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.Make of pipe:Jindal/Tata(DSR 5.2, 2014) | 3.00 | EA | INR | 5110.47 |
| 240 | Supplying and laying of 25mmx5 mm GI strap for earth electrode & DB/panel earthing including supply of all hardwares required for connection. The GI strap should be hot dip galvanised with galvanisation thickness of minimum 80 micron and confirm to IS. All hardwares to be galvanised and of minimum 12mm diameter.G.I strip shall be burried below ground as strip earth electrode,including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm) | 45.00 | M | INR | 125.81 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|--------|
| 250 | <p>Cable, 4C x 50 mm², 1100V, PVCA Alu.</p> <p>Size: 4Cx50 mm²</p> <p>Voltage Grade: 1100V</p> <p>Colour: Black</p> <p>Conductor Material: Stranded compact circular/shaped Aluminium</p> <p>Shape: Complete round on outer side</p> <p>Insulation: PVC</p> <p>Filler & Inner Sheath: Unvulcanized rubber/ Thermoplastic materials/ Proofed tape (for inner sheath only).</p> <p>Outer Sheath: PVC</p> <p>Armour: Galvanised Steel Tape/Wire</p> <p>Applicable Standard: IS-1554 (part-1)-1988 (with latest amendments if any)</p> <p>Marking: a) Manufacture's name, voltage grade, length (in metres), size of cable, year of manufacture shall be printed, indented or embossed on the sheath of the cable throughout the length. The distance between any two consecutive printings, indentations or embossings shall be not more than 1 m.</p> <p>Make: Any brand with valid BIS manufacturing license & type test certificates.</p> | 300.00 | M | INR | 586.00 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|---|--------|-----|-------|-------|
| 260 | <p>Cable, 1C x 25 mm², 1100V, PVC Alu.(Earthing)</p> <p>Size: 1Cx25 mm²</p> <p>Voltage Grade: 1100V</p> <p>Colour: Black</p> <p>Conductor Material: Stranded compact circular Aluminium</p> <p>Shape: Complete round on outer side</p> <p>Insulation: PVC</p> <p>Sheath: PVC</p> <p>Min Length: 500Mtr</p> <p>Applicable Standard: IS-1554 (part-1)-1988 (with latest amendments if any)</p> <p>Marking: a) Manufacture's name, voltage grade, length (in metres), size of cable, year of manufacture shall be printed, indented or embossed on the sheath of the cable throughout the length. The distance between any two consecutive printings, indentations or embossings shall be not more than 1 m.</p> <p>Make: Any brand with valid BIS manufacturing license & type test certificates.</p> | 300.00 | M | INR | 80.00 |

| SI no | Description of Work | Qty | UOM | Curr. | Rate |
|-------|--|--------|-----|-------|--------|
| 270 | <p>Making of cable trench in the soil as per following details.</p> <p>The trench will be made in soil along the route decided in consultation with OIL. The trench will be 750mm deep, 400mm wide. The trench bottom will be filled with 75mm thick layer of clean sand and levelled to give flat bedding for cable. The cable shall be laid on this sand bed. After laying the cable in the trench the trench will be filled with another layer of clean sand of thickness 75mm. This sand layer will be leveled and complete trench length covered with A-Class bricks. The bricks will be placed perpendicular to the cable route closely without any gap. The trench will then filled with soil and the soil surface shall be dressed properly.</p> | 250.00 | M | INR | 233.00 |

- Bidder must include all liabilities including statutory liabilities in their quoted rates (excluding PF and service tax).

Note: The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & Service Tax.

**OIL INDIA LIMITED
(A Govt. of India Enterprise)
DULIAJAN (ASSAM)
WORKS CONTRACT**

PARTICULAR SPECIFICATIONS AND INSTRUCTIONS:

DESCRIPTION OF WORK/SERVICES: Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement.

1. SCOPE OF CIVIL WORK :

1.1. GENERAL :

All materials used in the work shall conform to the latest revision of the relevant Indian Standard Specifications to the extent practicable. Where no such specifications exist they shall be of the best quality available in the market. Wherever ISI certified materials and products are available these alone shall be used. All materials shall be stored at site in accordance with IS-4082-1996.

Unless specially provided for in the contract the tendered rates shall include the cost of carriage, transport, loading, unloading and stacking as directed for all materials required on the work. Where a tender provides a rate for transport of materials, it includes for all loading, unloading and stacking on the site in such position and manner as directed. Any materials found not conforming to specification must be removed from site within 48 hours.

1.2. SITE CLEARANCE :

Before the earthwork is started, the area coming under cutting and/refilling shall be cleared of shrubs, vegetation, grass, uprooting of tree stumps and such others, and rubbish removed upto a distance of 50 metres outside the periphery of the area under clearance. The rate of such site clearance is included in the rate of earthwork.

1.3. STORAGE :

Materials shall be transported, handled and stored at site carefully to the approval of Engineer so as to prevent any damage of any kind to be kept at his own risk and cost.

Cement shall be stored in a weather proof shed, the floor of which shall be raised 300 mm clear from the ground and 600 mm away from the wall all round in order to protect from rain and moisture. Empty cement bag shall be returned to the Company in good condition.

1.4. CEMENT CONCRETE/ REINFRCED CEMENT CONCRETE WORK :

All C.C. work in 1:3:6 proportions shall be done with 18 mm graded down broken stone. Broken stone shall be properly screened before use. All reinforced cement concrete work to be done in prop. 1:1.5:3 unless otherwise specified -- 18mm down to

12 mm graded down broken stone as per related drawings and instructions of site Engineer to be followed in case of any discrepancies. Proper vibration to be done as per IS recommendation. Floor panelling to be done in the line of expansion joint as directed by Engineer In-charge.

a) Fine Aggregate - Fine aggregate shall be hard, durable, clean and free from adherent coating and organic matter. It shall not contain harmful impurities such as pyrites, coal, lignite, mica, shale or similar laminated material, clay, alkali, soft fragments, sea shells and organic impurities in such quality as to affect the strength or durability of the concrete. Fine aggregate to be used for reinforced concrete shall not contain any material liable to attack the steel reinforcement. Fine aggregate which is chemically reactive with alkalis of cement is harmful as cracking of concrete may take place.

b) Coarse Aggregate - Coarse aggregate shall be obtained from natural sources such as stone, gravel, etc crushed or un-crushed or a continuation thereof from approved quarries. This shall consist of coarse material most of which is retained on 4.75mm sieve. Aggregate shall be hard, strong, dense, durable, clean and free from veins and adherent coatings. It shall be free from soft, feeble, thin, elongated or laminated pieces and shall be roughly cubical in shape. It shall be clear and free from dirt and any other deleterious matter.

c) Reinforcement bars - The following types of steel for reinforcement shall be used in reinforced concrete construction and these shall conform to Indian Standards or as revised from time to time mentioned against each

a. Mild steel and medium tensile steel bars and hard drawn steel wire – IS: 432.

b. HYSD bars – IS: 1786.

Bending & Placing steel reinforcement in position- Bending shall be carried out as per relevant IS specification and direction of the Engineer-in-charge. All reinforcement bars shall be accurately placed in position with spacing and cover as shown in the drawing or as specified and firmly held so during the placing and vibrating and setting of concrete. Bars shall be thoroughly cleared of rust, seals, grease, oil and any other foreign matter before placing them in position. The overlap jointing shall be staggered. The bars shall be fixed with 22G binding wire. Precast cover blocks 1:2 (1 cement: 2sand) cement mortar 40 mm square and necessary thickness shall be used to keep the reinforcement bars in proper position. For this block, no extra payment to be made. Wire required for binding shall not be measured separately. Tack welding shall also be permitted in lieu of building with steel wire.

d) Proportioning of mix - Proportioning shall be done by volume. Boxes of suitable size shall be used for measuring sand and aggregates. The size of the boxes (internal) shall be 35 x 25cm and 40cm deep. The unit of measurement for cement shall be a bag of cement weighting 50 Kg and this shall be taken as 0.035 cubic metres. While measuring the aggregate and sand the boxes shall be filled without shaking, ramming or hammering. The proportioning of sand shall be on the basis of its dry volume and in case of damp sand; allowances for bulk age shall be made.

e) Mixing - Mixing of reinforced cement concrete shall, as a rule be done in a mechanical mixer. However, the Engineer-in-charge may permit hand mixing in

specific cases where in his opinion it is not practicable to resort to mechanical mixing, either on account of the quality of cement concrete required is small or for any other reason. In such cases, it should be ensured that the inferior quality of concrete produced by hand mixing will not adversely affect the structure.

f) Consistency - The quantity of water to be used for each batch containing 50 Kg of cement, to give the required consistency shall not be more than 34 litres for 1:3:6, mix 32 litres for 1:2:4 mix, 30 litres for 1:1.5:3 mix and 27 litres for 1:1:2 mix. In case of vibrated concrete, the above quantity shall be suitably reduced. The quantity of water shall be regulated by carrying out regular Slump Test.

g) Placing of concrete - Before placing the concrete the sub-base/form work shall be cleared of all injurious or foreign matter, watered and well consolidated. Formwork shall be clean and free from all foreign material. It is necessary that the time between mixing and placing of concrete does not exceed the initial setting process. Mixed concrete that has been left standing shall not be used after the initial set has commenced the addition of water (or cement) to make such a mixture more workable shall not be allowed. In foundation trenches or such other situations, the entire concrete used in the work shall be laid gently (not thrown) in layers not exceeding 15cm. The concrete so deposited shall be thoroughly vibrated by means of mechanical vibrators till dense concrete is obtained.

h) Curing - Concrete shall be carefully protected during first stage of hardening from harmful effects or excessive heat, drying winds, rain or running water and shock. After the concrete has begun to harden i.e. about 1 to 2 hours after its laying it shall be protected from quick drying with moist gunny bags or any other material approved by the Engineer-in-charge. After 24 hours of laying of concrete the surface shall be cured by flooding water upto 25mm depth or by covering with wet adsorbent materials. The curing shall be done for a minimum period of 7 days from the date of pouring of concrete, unless otherwise specified.

i) Finishing - In case of roof slabs the top surface shall be finished even and smooth with wooden trowel, before the concrete beings to set. The surface of RCC slab on which the cement concrete or mosaic floor is to be laid shall be roughened with brushes while the concrete is green. This shall be done carefully without disturbing the concrete. Before laying the floor, the laitance shall be removed, the surface of slab hacked and a coat of cement slurry at 2.75 Kg of cement per square metre shall be applied, so as to get a good bond between RCC and concrete floor. The exposed surface which is to receive plaster or where it is to be joined with brick masonry wall shall be properly roughened immediately after the removal of form work, taking care to remove the laitance completely without disturbing the concrete. Before the surface is plastered, it shall be cleaned and wetted so as to give good bond between concrete and plaster.

1.5. FORM WORK :

The formwork shall be rigid and so corrected as to retain the shape and dimensions of the member being cast. Form work for concrete shall be seasoned timber/steel or other approved materials as per directions of the Engineer. It shall be sufficiently tightened to prevent loss of cement slurry and all holes and joints shall be caulked

with putty. It shall have sufficient strength and rigidity to withstand the load of concrete, and vibrations, movement of men, materials and plants and any other incidental loads without excessive deflection beyond permissible limits. The formwork shall be so constructed as to be removable in sections by inscribing or otherwise loosening – them without hammering or levering with force. Only wedges, clamps bolts or screws etc shall be used in preference to nails or spikes. All side pieces shall be easily removable without disturbing the bottom pieces. Where however, use of nails and spikes become unavoidable, these shall be left projecting so that they can easily be withdrawn.

Surface treatment for shuttering - Forms shall be cleaned of all dust, wood shavings, dirt and other matter by washing with water. This process is facilitated by providing draining holes in the shuttering. The surface shall then be coated with soap solution applied before concreting is done. Soap solution for the purpose shall be prepared by dissolving yellow soap in water to get consistency of paint. Alternatively coats of raw linseed oil/refined pale paraffin mineral oil or form oil of approved manufacture may be applied. In case steel shuttering is used, soap solution or raw linseed oil shall be applied after thoroughly cleaning the surface. Care shall be taken that such approved composition is kept out of contact with the reinforcement.

In normal circumstances (temperature not below 15 degree C) and where ordinary Portland cement is used form may generally be removed after the expiry of the following periods.

- a. Vertical form work to columns, walls, beams = (16-24) hours.
- b. Slabs side (props left under): 3 days.
- c. Beam soffits (props. left under): 7 days.
- d. Removal of props under slabs.
 - i. Spanning up to 4.5 m: 7 days.
 - ii. Spanning over 4.5 m: 14 days.
- e. Removal of props under beams and arches:
 - i. Spanning up to 6 m: 14 days.
 - ii. Spanning above 6 m: 21 days.

In no circumstances shall forms be struck until the concrete reaches strength of at least twice the stress to which concrete may be subjected at the time of removal of form work. All form works shall be removed without such shock or vibration as would damage the concrete. Form work for long span deep beams to be supported by MS props or Bhaluka Bamboo props as required based on the design for the formwork to take care the massive load of the green concrete.

1.6. BRICKWORK :

- a) All bricks shall be of 75 class designation quality locally available as approved by the Site Engineer.
- b) Bricks shall be of size as specified in the item of work or of nominal size where no particular size is mentioned.

c) Bricks shall be well burnt, sound, hard with sharp edges of uniform size and shape free from cracks, stones or particles of lime and other defects, shall be kiln burnt and satisfy the following requirement:

- i. They shall give a clear metallic sound when struck.
- ii. They shall be of uniform colour and size.
- iii. They shall not be cracked, stratified or under or over burnt.
- iv. The tolerance in dimensions shall be +/- 12mm in length, 6mm in width and 3 mm in height.
- v. Keys or frogs shall be formed on one of the larger size, except in the case of machine extruded bricks where no frogs are required
- vi. The increase in weight when soaked in water for 24 hours shall not be more than 20% of the dry weight of the bricks.

d) If required by the Site Engineer, necessary test shall be conducted at the contractor's expense to ensure quality. In general, the bricks shall be the best quality locally available.

Bricks used for masonry in cement mortar or composite mortar shall be thoroughly soaked in clean water for at least an hour immediately before use (The absence of bubbling when the soaked brick is immersed in water is the test for thorough soaking). The soaked bricks shall be kept on a platform free from dirt, mud or any foreign element. Bricks shall be laid in English bond unless otherwise specified. Care must be taken that the bricks are perfectly clean and free from lime, moss or dirt of any kind. If necessary they must be scrubbed before use. Half or cut bricks shall be not used except for closures which may be required to complete the bond. It shall be ensured that all horizontal and vertical joints are completely filled with mortars without any void in brickwork. Brickwork shall be raised truly plum (or true to required better whereas specified). All courses shall be laid truly horizontal. Vertical joints shall be truly vertical and those in alternate courses shall be in the same vertical line. The thickness of brick courses shall be uniform. Great care must be taken to masonry in progress of construction damp. When work is left off for the day troughs shall be formed, by means of fillets of mortar 51mm high all round the unfinished work and shall be kept filled with water. Vertical or inclined surfaces must be frequently watered from a rose headed can. Water should not be dashed with violence against new work as this washes out the mortar. Should the work be delayed owing to holidays or for other reason, the contractor must make adequate arrangements for keeping the work wetted, and shall continue to do so for at least ten days or such longer time as directed, after the brickwork has been completed.

a) Brick work in cement mortar with 75 designation brick including racking out joints and curing complete as directed, in sub structure and superstructure in mortar of specified proportion.

b) 115mm thick 75 designation brick nogged wall in cement mortar embedded with protruding M.S. rod 6mm dia. in column including racking out joint and curing complete as directed in super structure above plinth in proportion as specified.

1.7. CEMENT MORTAR :

- i) Must be freshly mixed: Cement mortar will only be mixed in such quantities as can be used up on the work within half an hour of mixing. Mortar which has been mixed longer or which has taken its initial set will on no account be used on the work or remixed with fresh mortar. It must be immediately removed from the site or work.
- ii) Method of mixing: The cement and sand will be mixed dry in the specified proportions, by turning over at least three times on the mixing platform. Only sufficient water will then be added, thorough a rose of a watering can, to produce a workable mixture. The wet mortar will be thoroughly worked or mixed by repeatedly turning over, not less than three times on the mixing board.
- iii) Size of mixing platform and precaution against list : All mixing of mortar must be done on platforms of angle size and workman bringing the material to and from the platform must not be permitted to walk about on it, thereby bringing mud or dirt to the place, where the mortar is being mixed. The platform must be clean and level and all joints closed or filled so that the cement is not washed out.
- iv) Proportion of cement and sand: Where not otherwise specified, cement mortar for plaster will consist of one part of cement to two parts of sand. For mortar for brick or stone masonry work the proportion unless otherwise specified, will be one part of cement to three parts sand.

1.8. WOOD WORK :

The work shall be carried out as per detailed drawings and/or as directed by the Engineer-in-charge. The wooden members of the frame shall be planed smooth and accurate to the full dimensions. Rebates, rounding, mouldings etc as shown in the drawing shall be done before the members are joined into frames. Timber will be 1st class seasoned as approved by the Engineer-in-charge.

Jointing - Jointing in timber frames must be made carefully and accurately. They shall be strong, neat and shall fit without wedging or filling. The joints shall be pinned with hard wood 10 to 15mm dia after the members of the frame are pressed together in a suitable vice-mechanism.

Surface treatment - Woodwork shall be painted, oiled, polished or otherwise treated as specified. All portions of timber abutting against masonry or concrete portion of building shall be coated with boiling coat tar or other type of approved wood preservative or primer, before placing them in final position.

Hold fasts - Hold fasts used for fixing doors and window frame shall be made of 40 x 3mm flat iron long. It shall have a hole on one end for fixing to frame with 10mm dia bolt, at the other end the flat iron shall be split and bent at right angles in the opposite direction. The hold fast shall be tightly fixed to the frame by means of bolts, the bolt hole in frame being plugged suitably and finished neat. The hole fast shall be embedded into masonry by concrete block as described in the item of work.

1.9. DOORS :

- a) The flush door shutters (solid core type) decorative and non-decorative type shall conform to IS: 202 (Part I). The door should be fixed using 4 nos. of hinges 125mm long ensuring that the hinges are not fixed less than 150mm from the edges with 8 nos. parallel sunk fully threaded screws 38mm long, should be used for fixing

the hinges to the flush door after drilling a pilot hole 2.50mm dia. 40mm long. Screws should not be hammered. lock, tower bolts etc. necessary, if any to be paid separately.

b) Door frame (Chowkaths) of doors, windows, other similar works wrought, framed and fixed in position in contact with C.C. or brick masonry walls including supplying, fitting and fixing with M.S. flat hold fast (40mm x 3mm x 250mm) as per design and embedded in cement concrete block in prop 1:2:4 and with two coats of kiricide oiling to the timber faces in contact with C.C. and masonry as directed and specified.

1.10. STEEL DOORS, WINDOWS AND VENTILATORS :

The type, over all sizes, side opening position of steel doors, windows and ventilators shall be specified as per details given in IS: 1038, specification for steel doors, windows and ventilators. Both the fixed and opening frames shall be constructed of sections, which have been cut to length and mitred. The corners of fixed and opening frames shall be electrically flash butt welded to form a solid and true right angle and all frames shall be square and flat.

Side-hung shutter windows – Window shutters shall be hung on projecting type hinges (not less than 65mm and not more than 75mm wide). One leaf of the hinge shall be welded into a slot in the outer frame and the other leaf of the hinge riveted to the opening shutters. Friction hinges may be provided for side-hung shutter windows in which case peg-stay may not be required. In cases where non-friction type hinges are provided, the windows shall be fitted with peg-stays, which shall be either of hot pressed brass, cast brass; aluminium or steel protected against rusting and shall be 300mm long with steel peg and locking bracket. The peg stay shall have three holes to open the side hung casements in three different angles.

Top Hung Ventilators – The steel butt hinges for top hung ventilators shall be riveted to the fixed frame or welded to it after cutting a slot in it. Hinges to the opening frame shall be riveted or welded and cleaned off. Top hung casements shall be provided with a peg stay three holes which when closed shall be held tightly by the locking bracket. The locking bracket shall either be fitted to the fixed frames or to the window.

Glazing of metal doors, windows and ventilators - Doors and windows shall normally be glazed with glazing putty on unless otherwise specified. Putty shall be applied between glass panes and glazing bars. Putty shall be applied over the glass panes, which shall stop 2 to 3 mm from the sight line of the back rebate to enable the painting to be done upto the sight line, to seal the edge of the putty to the glass. The oozed out back putty shall be cleaned and cut to straight line.

1.11. PLASTER WORK :

a) **Preparation of surface** : All putlog holes in brick work and junction between concrete and brick work shall be properly filled in advance. Joints in brick work shall be raked about 10mm and concrete surface hacked to provide grip to the plaster. Projecting burrs of mortar formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coil brush to remove dirt; dust etc. and the surface thoroughly washed with clean water to remove

efflorescence, grease and oil etc. and shall be kept wet for a minimum of six hours before application of plaster.

b) Proportion: The cement plaster shall be in specified proportion of cement and sand.

c) Mixing : The cement and sand should be thoroughly mixed in dry condition. After dry mixing the materials shall be wetted with just sufficient water to bring the mortar to proper consistency of thick paste. Mortar should be used immediately after mixing and arrangements shall be made so that not more than 30 minutes elapse between the cement first coming in contact with the moisture and laying. In all exterior plaster works waterproofing compound to be added to the mortar as per the specification of the manufacturer, if not indicated in the item rate quoted should be inclusive of the same.

d) Placing : Plaster shall be laid over the prepared surface in one coat to the specified thickness and rubbed with "PATAS" and trowel and shall be smooth, free from waviness and trowel marks.

e) Sequence of operations : For external plaster, the plastering operations shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supports of the ceiling resting on the wall or the floor have been removed.

f) Curing : Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used.

1.12. DAMP PROOFING COURSE :

It shall consist of 1:1.5:3 plain cement concrete with approved water proofing materials such as cico, impermo etc. of specified thickness. Edges of DPC shall be straight, even and vertical side shuttering shall consist of wooden or steel forms and shall be strong and properly fixed so that it is not disturbed during compaction and mortar or cement slurry does not leak through. When forms are struck the surface should be smooth without any honeycombing. The surface shall be kept wet for seven days. Before commencing the superstructure work, the top of concrete course shall be dried and cleaned of all materials. Blown type bitumen shall then be applied uniformly on the surface and the side of the concrete coming in contract with flooring on the inside shall also be painted with bitumen.

1.13. WASHABLE DISTEMPER/OIL BOUND DISTEMPER/PLASTIC EMULSION PAINTING:

a) Preparation of surfaces: The surface shall be thoroughly brushed free from dust, dirt, grease, mortar droppings and other foreign matter and sand papered smooth. Thereafter a smooth surface shall be prepared by applying putty, made of plaster of Paris mixed with water on the entire surface including filling up the undulation and then sand papering the same after it is dry.

b) Primer coat : The primer where used as on undecorated surfaces shall be alkali resistance primer or acrylic based cement primer as specified in the item. These shall be of the same manufacture as oil bound distemper/ plastic emulsion paint. If the wall surface plaster has not dried completely alkali resistance primer shall be applied before distempering the walls. But if the distempering is done after the wall surface is dried completely, cement primer shall be applied.

c) Application of distemper/plastic paint coat : For undecorated surfaces, after the primer coat has dried for at least 48 hours, the surface shall be lightly sand papered to make it smooth for receiving the distemper/plastic paint taking care not to rub out the priming coat. All loose particles shall be dusted off after rubbing. Minimum two coats of distemper/plastic paint shall be applied with brushes in horizontal strokes followed immediately by vertical, which together shall constitute one coat. The subsequent coats shall be applied after a time interval of at least 24 hours between consecutive coats to permit of the proper drying of the preceding coat. For decorated surfaces, the distemper/plastic paint shall be applied in two coats or more over the prepared surface in the same manner as for undecorated surfaces.

d) Purchase of paint, varnish or oil : Only the best brands obtainable will be used and should the contract permit the contractor to supply any paint, oil or varnish he shall purchase only such brands as the Site Engineer shall approve of in writing. All purchases must be made direct from the manufacturers or through an agent approved of in writing by the Site Engineer. Should the Site Engineer so direct copies of all indents and receipts for purchase must be submitted for inspection. Paint etc. to be purchased in sealed containers. All paints, oil or varnishes supplied by the contractor must be produced for the inspection of the Site Engineer of the work in the manufacturers sealed and unopened containers. All containers from which the contents have been removed and are not required on the work must be destroyed and no extra payment will be granted for such destruction. Only ready mixed or varnished of the make or brand specified will be permitted to be used exactly as received from the manufacturer without any admixture what so ever unless previously authorised, in writing, by the Site Engineer.

1.14. SYNTHETIC ENAMEL PAINT :

Preparation of surface: The surfaces before painting shall be cleaned of all rust, scale, dirt and other foreign matter sticking to it with wire brushes, steel wool in case of steel surfaces and sand papering in case of wooden surfaces. Thereafter, one coat approved primer paint will be applied on the surface. Synthetic enamel paint (Superior quality as approved) shall be applied – two or more coats to give an even shade.

1.15. FILLING EXCAVATED EARTH IN FOUNDATION TRENCHES AND PLINTH OR UNDER FLOORS :

As soon as the work in foundation has been completed and measured, the sides of foundations shall be cleared of all debris, bricks bats, mortar dropping etc, and filled with earth in layers not exceeding 30cms, each layer shall be adequately watered, rammed and consolidated before the succeeding one is laid. Earth shall be rammed

with iron rammers where feasible, and with the butt ends crowbars where rammer cannot be use.

The plinth shall be similarly filled with earth in layers not exceeding 30cms, adequately watered and consolidated by ramming with iron or wooden rammers. When filling reaches the finished level, the surface shall be flooded with water for at least 24 hours, allowed to dry and then rammed and consolidated, in order to avoid any settlement at a later stage.

Sand filling in plinth : Sand shall be clean and free from dust, organic and other foreign matter. Sand filling shall be done in a manner similar to earth filling in plinth. Concreting of floor shall not be started till the Engineer-in-charge has inspected and approved the filling.

1.16. CERAMIC TILE FLOORING/SKIRTING :

a) Preparing of Plinth Filling : All plinth fillings shall be properly consolidated in layers, watered, rammed and allowed to consolidate to the Site Engineer's satisfaction before any flooring is laid. When the flooring is to be laid over a foundation of sand, broken stone, brick or a combination of sand and broken stone or brick the filling shall be removed to a depth equal to the thickness of the flooring plus such foundation layers.

b) Foundations:

i) **Sub-layer of sand :** After the plinth filling has been prepared as detailed in specification above a sub layer of sand 300mm deep shall be laid watered and brought to an even surface.

ii) **Layer of broken stone or brick:** Over the sand a foundation course of bricks shall be laid and the interstices filled in with sand. The bricks shall be tightly packed and laid so as to break joint.

c) Tile floors:

i) **Foundation and cement floating under tiles :** Over the foundation as in (b) above 2 coats of cement plaster, 1part of cement to 1 part of sand, prepared in a very liquid condition will be floated over it and allowed to set.

ii) **Laying :** After the tiles have been soaked in water for at least two hours and the cement foundation sprinkled with water, laying work may commence and shall start from the centre of the room or area to be tiled, work being continued in both directions so that borders are laid last. A layer of 20mm thick (average) cement mortar: 1:4 (1 cement: 4 sand) (unless otherwise specified) shall be provided as bedding for the tiles. Each tile will be laid in and drawn up in neat cement of honey like consistency at 4.40 Kg of cement per sqm. care being taken to exclude air bubbles. Threads shall be stretched cross the surface, at intervals, parallel to the short sides of the area to be tiled to serve as guide lines. Each tile being gently tapped with a wooden mallet till it is properly bedded. The joints shall be grouted with white cement and matching pigment complete. The surface of the flooring shall be checked frequently with a straight edge so as to obtain a true surface with slope, if required. At position where full tiles cannot be fixed, the tiles shall be cut to size and smoothened to give straight and true joints.

iii) Cleaning : After a small area has been laid all superfluous cement will be wiped off the surface. Stains shall be removed by moistening with hydrochloric acid and rubbing with pumice stone and afterwards washing with warm water.

iv) Curing : The floor shall be kept wet for a minimum of 7 days so that bedding and joints set properly.

1.17. MARBLE STONE FLOOR :

Each stone slab be cut to the required size, the overall dimension of each slab to be laid on floors shall not be less than 1.00 sqm. and fine chisel dressed to give a smooth and even surface on all sides. A layer of 20mm thick (average) cement mortar 1:4 shall be provided as bedding for the marble slab.

Laying – Sub grade shall be cleaned, wetted and mopped. Mortar of the specified mix and thickness shall then be spread on an area sufficient to receive one marble slab. The slab shall be washed clean before laying. It shall be laid on top, pressed, tapped gently to bring it in level with the other slabs. It shall then be lifted and laid aside. Top surface of the mortar shall then be corrected by adding fresh mortar at hollows or depressions. The mortar is then allowed to harden a bit. Over this surface, cement slurry of honey like consistency at 4.4 Kg of cement per square metre. The edges of the slabs already paved shall be buttered with grey or white cement with or without pigment to match the shade of the marble slabs as given in the description of item. The slab shall then be gently placed in position and tapped with wooden mallet till it is properly bedded in level with and close to the adjoining slab. The joint shall be as fine as possible. Surplus cement on the surface of the slab shall be removed.

Curing – The floor shall be cured for a minimum of 7 days.

Polishing – The marble stone slab shall be grinded by hand or machine to a fine polish.

1.18. PLINTH PROTECTION AND STORM WATER DRAIN:

Plinth protection and storm water drain shall be provided along the outer periphery of the building as per drawing and with PCC (1:3:6) over bricks flat laid in CM 1:4 and finished with 15mm thick cement plaster in prop. 1:2 with floating coat of neat cement finish.

1.19. SANITARY, PLUMBING WORKS AND WATER SUPPLY FITTINGS & FIXTURES:

All sanitary, plumbing and water supply fittings and fixtures shall conform to the specifications and particular make specified in the items of work and direction of Engineer-in- charge. All waste and soil pipes and fixtures shall conform to IS specifications and shall be jointed as specified.

- a) Indian/European W.C. with PVC flushing cistern as per drawing & specification.
- b) Wash basin and urinal pan at toilet as per drawing & specification. Wash basins to be provided with C.I. brackets.
- c) Providing soap tray in the toilet.
- d) Rain water pipe as per drawing & specification
- e) Gully trap
- f) Inspection chambers, manholes, septic tanks, drainage pipes etc. as per drawings.

g) Medium class GI pipes with all GI fittings clamps and specials etc. for water supply lines 25mm, 20mm & 15mm.

h) Concealed PE-AL-PE pipes for water supply.

1.20. P/F PRE PAINTED GALVALUME/GALVANISED SHEET ROOFING :

Pre Painted Galvalume Sheet at all levels shall be fitted and fixed with self drilling, self tapping screws complete (roof trusses, purlins to be measured and paid separately) of make Dyna roof/sathyam/century wells and of thickness 0.50mm thick. Preferably it shall be carried out by a reputed party.

1.21. ANODISED ALUMINIUM WORKS :

Aluminium sections used for fixed/openable windows, ventilators, partitions, frame work & doors etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer-in-Charge for technical, structural, functional and visual considerations. The aluminium extruded sections shall conform to IS 733 and IS 1285 for chemical composition and mechanical properties. The stainless steel screws shall be of grade AISI 304.

The permissible dimensional tolerances of the extruded sections shall be as per IS 6477 and shall be such as not to impair the proper and smooth functioning/operation and appearance of door and windows. Aluminium glazed doors, windows etc. shall be of sizes, sections and details as shown in the drawings. The details shown in the drawings may be varied slightly to suit the standards adopted by the manufacturers of the aluminium work, with the approval of Engineer-in-Charge. Before proceeding with any fabrication work, the contractor shall prepare and submit, complete fabrication and installation drawings for each type of glazing doors, windows, ventilators and partition etc. for the approval of the Engineer-in-Charge. If the sections are varied, the contractor shall obtain prior approval of Engineer-in-Charge and nothing extra shall be paid on this account.

1.22. ALUMINIUM CLADDING WORKS :

Aluminium cladding work shall comprise of designing, providing and fixing composite panel 4 mm thick 35 microns DFT, PVDF coated Aluminium cladding of Alucobond / Alucomat or equivalent make of approved shade and colour for external wall either segmental curved or straight in plan, around corners and where ever else specified fixed to masonry/ concrete with extruded aluminium "U" sections, angle cleats Silicon weather sealants, rivets, brackets, plastic board for the cladding to either masonry or concrete as required, including all necessary accessories etc and as directed by the Engineer-in-charge complete as per detailed fabrication drawings to be approved by Engineer-In-Charge.

Pre-laminated Particle Board :

A particles board laminated on both surfaces by synthetic resin impregnated base papers under heat and pressure. Pre-laminated particle boards shall be of two grades, namely, Grade I and II corresponding to IS 3087 & 12823.

EPDM- GASKETS :

The EPDM Gaskets shall be of size and profile as shown in drawings and as called for, to render the glazing, doors, windows, ventilators etc. air and water tight.

Samples of gaskets shall be submitted for approval and the EPDM gasket approved by Engineer-in-Charge shall only be used.

SEALANT :

The sealants of approved grade and colour shall only be used. The silicone for perimeter joints (between Aluminium section and RCC/Stone masonry) shall be of make approved by the Engineer in Charge.

PE-AL-PE PIPES :

The PE-AL-PE pipes are bonded, multilayer pipes consisting of metal aluminium and Polyethylene i.e. metallic pipe bonded with adhesive both internally and externally by polyethylene coating. The layers of PE-AL-PE pipes are:-

- (i) The interior layer of polyethylene.
- (ii) The adhesive layer.
- (iii) Aluminium tube.
- (iv) The adhesive layer.
- (v) The external layer of polyethylene.

Polyethylene composite pressure pipes have welded aluminium tube reinforcement between inner and outer polyethylene layers, inner and outer polyethylene layer being bonded to aluminium tube by melt adhesive and are manufactured as per IS 15450 The specially manufactured compression joints fittings should be used for PE-AL-PE pipes which are available in 3 types i.e. brass, composite and composite external sealing. Either of these fittings should be used.

Jointing :

While jointing PE-AL-PE pipes, following steps are required to be taken to ensure a leak proof and strong pipe joint:-

- (a) Cut the pipe square by cutter to the required and proper length.
- (b) Select the fitting to be used and dismantle its nuts and split rings.
- (c) Place the nut and split ring over the pipe. Ensure that 'O' rings are in proper position of insert.
- (d) Prepare the end of pipe to be jointed for roundness and chamfer by using bevelling tool. Push the
pipe over the insert and inside the support groove fully.
- (e) Push the split ring and nut towards connector till split ring touches the support groove.
- (f) Tighten the nut over connector with spanner.

If the joints are required to be dismantled for any reason, the 'O' ring and split ring should be inspected before reassembling the joint for any damage. If any ring is found damaged, the same should be replaced. All other components can be reused. The joint sealing with fittings is done by silicone rubber ring. No thread sealing is involved. Tightening of the nuts is required only for compressing the split ring over the pipe, hence excessive tightening of the nuts is to be avoided. In case threading is required for fixing valves.

Only Teflon Tape should be used on threads. While for fittings, specially designed rubber "Seal" should be used. For pressure testing the pipeline system, specially

designed test plugs are to be used in female thread elbows instead of ordinary GI nipples with MS plugs before covering the pipes in chases.

1.23. ANTITERMITE TREATMENT (IS 6313):

Injecting chemical emulsion of Chlorpyriphosemulsificable concentrates 20% with 1% concentration for pre-construction anti-termite treatment and creating a continuous chemical barrier under and all round the column pits, trenches, top surface of plinth filling, junction of walls and floor along the external perimeter of building expansion joints, surroundings of pipes and conduits etc complete as per specification (plinth area of the building at ground floor only shall be measured for payment) and to be executed by reputed party.

1.24. MANDATORY TESTS :

The various mandatory tests shall be carried out by the contractor and no separate payment shall be made unless otherwise specified in the schedule of rates. Following tests /test certificate to be produced by the contractor at his own cost as and when directed by the Engineer-in-charge.

- i) Water for construction and curing to be tested before use ('PH' value should not be less than 6.)
- ii) Cube test for RCC to be done as per relevant is code of practice IS 456-2000.
- iii) Test certificate for steel materials, M.S. rod, Tor steel should be produced.
- iv) T.P. challan/procurement challan for timber and forest produce used shall be produced.
- v) Brick test as per BIS 1077 and BIS 3495 (part 1 and 2)
- vi) Any other tests as per the direction of Engineer-in-charge.

1.25. MEASUREMENT & PAYMENT :

Payment for all works done shall be made on the basis of actual work done as per the schedule of rates. For all extra work done on the advice of the Company's Engineer and which is not included in the schedule of rates, deviation order for the same shall be made on the rates as decided by the Company's Engineer.

1.26. SAFETY MEASURE :

Safety measure as per OIL regulations shall be strictly adhered to by the Contractor. Safety belts and other measure taken by the Contractors shall be borne by the Contractor. If any loss or damage caused to life during the erection and execution, the contractor shall be fully responsible for the loss.

1.27. RECORD KEEPING :

- i) A site order book will be maintained at site which will be in the custody of the Engineer-in-charge or his representative and all instructions given to the Contractor will be recorded in the site order book and the same has to be signed by the contractor to comply with the instruction given therein.
- ii) A register to be maintained at site which will be in the custody of the Engineer-in-charge or his representative to maintain the records of cement the same has to be signed by the contractor
- iii) A separate register to be maintained at site by the contractor to record the works executed and remarks columns to be added in this to record the hindrance.

1.28. In case of any ambiguity/conflict among various documents the decision of Engineer-in-charge will be final and binding.

1.29. CONTRACTOR'S GODOWN :

The contractor must make adequate arrangement as directed by the Engineer-in-Charge, for the storage in suitable go-down of all perishable materials such as cement. On no account may cement be stacked on the ground either in or outside go-down. The contractor shall also construct a temporary office at site, before start the execution of work at site, as directed by the Engineer- in charge.

1.30. SPECIAL INSTRUCTION TO THE CONTRACTOR:

- i. Contractor must use mixture machine and vibrator for the RCC works. The Contractor shall use pump if needed for dewatering for excavation job for which no extra payment will be made.
- ii. Watch and ward, loss or damage to Company's property, theft and other incidental charges shall be Contractor's responsibility.
- iii. Efficient workmen to be engaged by the Contractor.
- iv. The Contractor's representative should report to Engineer-in charge on all working days at 7.00AM for instruction.
- v. Materials if rejected should be removed from site within 48(forty eight) hours of rejection, failing which the company reserves the right to get the rejected materials removed at the risk and cost of the contractor.
- vi. The Company reserves the right to get the part or whole work completed through other agency at the risk and cost of the contractor if he fails to complete the work within the stipulated time without any valid reasons. The Company's decision shall be final and binding on the Contractor.
- vii. The Contractor shall obtain labour clearance within seven day's of signing the contract.
- viii. Water that may accumulate on the site during progress of the works or in trenches and excavation from other than accepted risks shall be removed from the site to the satisfaction of the Engineer-in-charge and at the Contractor's expense.
- ix. If needed water and electricity will have to be arranged by the Contractor at his own cost. However, if felt, the same may be provided by Co. on Chargeable basis depending on its availability & approved by the Competent authority.
- x. The Contractor and his workmen have to strictly observe the safety precautionary rules as per Mines Act. (Latest edition) while executing the work.
- xi. No road closure will be allowed during execution of work and necessary traffic signal/road boards to be displayed at proper place by the Contractor at his own cost. The Contractor shall be wholly responsible for any accident arising out of non-fulfilment of this condition.
- xii. The Contractor will be required to work expeditiously at the site and must visit the site before tendering.
- xiii. Welding and cutting sets with fuel & operator, welder, fitter etc shall be arranged by the Contractor at his cost at site for fabrication and erection work.

xiv. Hot and Cold permit, Gas leakage testing certificate issued by the Concerned Department to be submitted by the contractor (where ever applicable) to Engineer-in-Charge before starting of dismantling or the other execution of job.

xv. The contractor must engage at least one or as mentioned in the Contracts Agreement qualified Technical personal (Preferable BE/B Tech in Civil Engineering with minimum 5 years experience or diploma in Civil Engineering with minimum 10 years experience) for the overall execution of the job and the complete bio-data of the person should be submitted to the engineer in charge within 7 days of the signing of the Contract agreement. In case the contractor does not deploy qualified technical person as mentioned above, the company has right to penalize the contractor at a rate decided by the company

xvi. The contractor must submit a work plan in bar chart for the overall job to complete it within 14 days of issuing of work order.

2. SCOPE OF ELECTRICAL WORK :-

1. GENERAL :

- i. Special conditions if contract shall be read in conjunction with the General Conditions of Contract, Schedule of Quantities specifications of work, drawings and any other document forming part of this contract wherever the context so requires.
- ii. Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each 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.
- iii. Where any portion of the General Conditions of contract is repugnant to or at variance with any provisions of the Special conditions of Contract, then unless different intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provision(s) of General Conditions of Contract only to the extent that such repugnance or variance cannot be reconciled with the tender conditions of contract and shall be to the extent of such repugnance of variations, prevail; it being understood that the provisions of General Conditions of Contract shall otherwise prevail.
- iv. Wherever it is stated anywhere in this tender document that such and such a supply is to be effected or such and such a work is to be carried out, it shall be understood that the same shall be effected/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.
- v. The materials, design and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein & 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 tender, the instructions/directions of Company will be binding on the Contractor.

- vi. The items given under Bill of Quantity shall be read in conjunction with scope of work, scope of supply (by Contractor) and job specifications and in case of any irreconcilable conflict between them the provision in the item under "Bill of Quantity" will override the corresponding provision only if the scope of work, scope of supply and job specifications, which cannot be reconciled in such cases the decision of Company shall be final and binding on the contractor.
- vii. In case of contradiction between Indian Standards, General Conditions of Contract, Special Conditions of contract, Specifications Drawings, Bill of Quantity, the following shall prevail in order of precedence.
 - a) Letter of intent / Detailed Letter of intent along with statement of Agreed Variations and its enclosures.
 - b) Bill of Quantity.
 - c) Special Conditions of Contract.
 - d) Job specifications/
 - e) Drawings
 - f) General Condition of contract
 - g) Indian Standard/Technical/Material Specifications.

2. LOCATION OF SITE AND SITE PARTICULARS :-

- a) Location of work Security Building at Heavy Vehicle parking, Duliajan.
- b) The intending Bidder shall be deemed to have visited the site and familiarized himself thoroughly with the site conditions and job details before submitting the tender. Non familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications.

3. STATUTORY REQUIREMENT FOR WORK :-

- a) Contractor shall employ work persons with valid wireman permit issued by State Licensing Board, Govt. of Assam to carry out all electrical jobs and shall deploy one supervisor holding valid Electrical supervisor's competency certificate issued/recognized by State Licensing Board, Govt. of Assam for supervision of electrical jobs.
- b) Quality of jobs carried out by the Contractor shall be of high standard and should be as per the norms of BIS, NEC, CEA Regulations and other electrical standards recognized by the company.
- c) The bidder or consortium should have (within last seven years) minimum experience of two years without any break in between for execution of office building electrification in conduit wiring system.

4. POWER :

Electricity required for wiring purpose shall be arranged by the contractor. However, electricity may be provided by the Company at its discretion to use drill machine or any other portable tools required for wiring purposes if available at nearest point. The Contractor shall have to arrange for required switch board with proper safety device like RCBO/ELCB/RCCB to draw power and use safely from the existing source.

5. SCOPE OF SUPPLY :-

Company does not envisage supplying any material for this work & contractor has to arrange all materials of his own & the rates quoted shall be deemed to include the same.

6. SCOPE OF WORK :-

Brief details of work to be carried out by the contractor are as described below. This will include supply, storage, laying, installation, jointing and testing, obtaining approvals, testing and commissioning and completion of different works. The contractor shall have to take prior approval from OIL for all items before purchasing. Without approval of items, contractor will not allowed to work. The work shall be carried out as described in Bill of Quantities (BOQ), specifications, and drawings, BIS / NEC guidelines and as per the instructions by Engineer-in-charge (electrical), of the Company. The scope of work shall cover internal electrification works of any office building/Industrial house/ Residential area and as specified by concerned Engineer in charge. The broad items/activities covered under internal electrical works shall include the Supply, Carry out & Installation of the following

- i) Point wiring of all lights points, call bell points, Ceiling fan points, exhaust fan points.
- ii) Light plug points, general power points, metal clad plug & socket outlet points etc. including light and power accessories etc. complete in all respects.
- iii) All concealed wiring shall be through BIS marked Medium/heavy duty PVC conduit on or through wall, roof, floor beams, false ceiling, floors etc.
- iv) Cables from Main Distribution Board to Sub Distribution Board, sub main wiring from main/sub distribution boards to various final distribution boards.
- v) Main Distribution Boards, Sub-Main Distribution Boards and Sub Distribution Boards.
- vii) Light fixtures, and exhaust fans.
- viii) Earthing of all Main CFS, Main DBs and SUB DBs etc. complete in all respects.

7. SCHEDULE OF QUANTITIES/RATE :-

- a) The quantities shown against the various items are only approximate and may vary to any extent individually subject to relevant clause of General Conditions of Contract. Any increase or decrease in the quantities shall not form the basis for alteration of rates quoted and accepted including where low/high rates have been quoted by the successful bidder.
- b) The Engineer in charge reserves the rights to interpolate or extrapolate the rate for any new item of work not finding a place in the Bill of Quantity, for similar items of lower and or higher magnitude available in the Bill of Quantity.
- c) In case any activity though specifically not covered in Bill of Quantity description but covered under scope of work/spec./drawing etc., contractor has to carry out the same without any extra claim.

8. PRICE VARIATION :-

OIL requires "FIRM PRICES" as indicated in General Conditions or Contract during Contract period and no material or labour escalation shall admissible on any account whatsoever.

9. MEASUREMENTS, BILLING & TERMS OF PAYMENT :-

All works shall be measured in metric system based on actual work done as per the terms and conditions of the Tender documents. Running Accounts bills based on Bill of Quantity shall be prepared and submitted based on joint measurements.

10. DEDUCTIONS FOR INCORRECT WORK :-

If, the Engineer-in-charge(Electrical) deems it expedient to correct work damaged or not done in accordance with the contract, an equitable deduction from the contract price shall be made thereof and the decision of the engineer shall be final.

11. CONTRACT DRAWINGS :-

Contractor has to prepare all working drawings mentioned below and obtain approval from the engineer in charge (Electrical) before starting the Civil work starts so that piping works for wiring job does not suffer due to non-approval of the working drawings:

- a) Layout diagram of complete conduit job for concealed wiring showing route for wiring from DB to sub-DB, sub-DB to Switch Board, Light and ceiling positions etc.
- b) Schematic diagram for complete electrical work.
- c) The contract shall keep at least one copy each of drawings, conditions of contract, specifications, instructions and schedule of quantities at the site of works available for reference by any authorized representative Engineer-in-charge(Electrical), at all times during the progress of the works.
- d) Contractor has to submit the LT Panel diagram (General Arrangement drawing, Schematic diagram and Bill of material) and take prior approval from Concern Engineer in charge before start manufacturing.

3. TECHNICAL SPECIFICATIONS :**CHAPTER -1****TECHNICAL REQUIREMENTS & MEASUREMENT SYSTEM****1.0 SCOPE**

This chapter covers the general technical requirements and measurement system of the various components in Internal Electrical Installation works.

1.0 TERMINOLOGY

1.1.1 The definition of terms shall be in accordance with 18:732-1989 (Indian Standard Code of Practice for Electrical Wiring), except for the definitions of point, circuit, and sub-main wiring, which are defined in clauses 2.2.1, 2.3.1, and 2.3.2 hereunder.

1.2 POINT WIRING**1.2.1 Definition**

Point wiring : A point (other than socket outlet point) shall include all work necessary to complete wiring to the following outlets from the controlling switch or MCB.

1.2.2 Scope : Includes supply & fixing of all specified items like Conduit Casing - capping, accessories like screws, rawl plug, Outlet boxes, junction boxes, pull-through boxes-etc, including metal boxes if any, provided with switch boards for

loose wires/conduit terminations, Bushed conduit or porcelain tubing where wiring cables pass through wall etc.

1.2.3 Measurement :

1.2.3.1 Point Wiring : There shall be no linear measurement for point wiring for light points, fan points, exhaust fan points and call bell points.

These shall be measured by counting only.

1.2.3.2 Wiring for socket outlet points : Light plug point 6 A, Power point 6/16A, 20A metallic socket wiring shall be measured as total length of wiring and shall be measured on linear basis along the run of wiring depending on the actual number and sizes of wires run .

The power point outlet may be 16A /6 A six pin socket outlet, where so specified in the tender documents.

1.3 CIRCUIT AND SUBMAIN WIRING :

1.3.1 Circuit wiring : Circuit wiring shall mean the wiring from the distribution board up to the tapping point for the nearest first point of that distribution circuit, viz. upto the nearest first switch box.

1.3.2 Sub-main wiring : Sub-main wiring shall mean the wiring item one main/distribution switchboard to another.

1.3.3 Measurement of sub-main wiring : The sub main wiring shall be measured on linear basis and paid for separately.

1.4. OTHER WIRING WORKS :

Except as specified above for point wiring, circuit wiring and sub-main wiring, other types of wiring 'shall be measured separately on linear basis along the run of wiring depending on the actual number and sizes of wires run.

1.5 SYSTEM OF DISTRIBUTION AND WIRING :

1.5.1. Control at the point of entry of supply: There shall be a circuit breaker on each live conductor of the supply mains at the point of entry.

1.5.2 Distribution : The wiring shall be done on a distribution system through main and/or branch distribution boards. The system design as well as the locations of boards shall be as indicated in BOQ/drawings or as specified by the OIL Engineer-in-charge. Main distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall also be controlled by a circuit breaker. The branch distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall be provided with a miniature circuit breaker (MCB) of specified rating on the phase or live conductor. The loads of the circuits shall be divided, as far as possible, evenly between the numbers of ways of the distribution boards, leaving at least one spare circuit for future extension.

The neutral conductors (incoming and outgoing) shall be connected to a common link (multilayer connector) in the distribution board and be capable of being disconnected individually for testing purposes.

'Power' wiring shall be kept separate and distinct from 'Lighting' wiring, from the level of circuits i.e., beyond the branch distribution boards.

1.5.3. Balancing of Circuits : The balancing of circuits in three wire or poly phase installations shall be arranged beforehand to the satisfaction of the OIL Engineer-in-charge.

1.5.4 Wiring System: Wiring shall be done only as per "point wiring" or "running metre" standard, as explained above.

Lights, fans and call bells shall be wired in the 'lighting' circuits.

6/16A combined socket outlets and other power outlets shall be wired in the 'Power' circuits. 5A/6A Socket outlet shall be wired in the light plug point circuit.

The wiring throughout the system shall be such that there is no break in the neutral wire except in the form of linked MCCB's, MCB's, RCBO's etc.

1.5.5 Run of Wiring : The wiring shall be in concealed conduit only. Due consideration shall be given for neatness, good appearance and safety.

1.6 Joints in wiring:

No bare conductor in phase and / or neutral or twisted joints in phase, neutral, and / or protective conductors in wiring shall be permitted. There shall be no joints in the through-runs of cables. If the length of final circuit or sub main is more than the length of a standard coil, thus necessitating a through joint, such joints shall be made by means of approved mechanical connectors in suitable junction boxes.

1.7 RATINGS OF OUTLETS : Exhaust fan, LED light, shall be rated according to their capacity.

1.8 CAPACITY OF CIRCUITS : 'Lighting' circuit shall not have more than a total of 10 points of light, fan and socket outlets, or a total connected load of 800W, whichever is less. 'Power' circuit shall have only one outlet per circuit.

1.9 CONFORMITY TO CEA REGULATIONS, 2010 AND STANDARDS : All electrical works shall be carried out in accordance with the provisions of CEA Regulations, 2010, BIS AND National Electric code, National Building Code. List of Rules of particular importance to building installations is given in Appendix for reference. The works shall also conform to relevant Indian Standards In all electrical installation works, relevant safety codes of practice shall be followed.

1.10 GENERAL REQUIREMENTS OF COMPONENTS :

1.10.1 Quality of materials : All materials shall be of such design, size and material as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

1.10.2 Ratings of components : All components in a wiring installation, conductors, switches and accessories shall be of appropriate ratings of voltage, current, and frequency, as indicated in BOQ.

1.10.3 Conformity to Standards : All components shall conform to relevant Indian Standard Specification, as per broad list specifying makes of components given in Appendix 'A' including amendments or revisions there of up to the date of tender acceptance, shall be applicable in the respective contracts.

1.10.5 General Notes :

a) Items shall be procured from the manufacturer or their authorized dealers only.

b) All the items shall be brand new and shall bear BIS monogram, wherever specified.

c) Item shall be guaranteed for a period of one year from the date of installation of materials against any manufacturing defect or workmanship.

1.11 CABLES:

1.11.1 Wiring cables: Conductors of wiring cables shall be of copper. The smallest size of conductor for various circuits including earthing shall be not less than as follows:

'lighting' 1.5 sq mm. 'power' 4 sq mm, Sub Main 6 sq mm, Main 10 or 16 sq. mm, All wiring cables shall be Copper, FRLS, single core, PVC insulated, unsheathed, 1100V grade, BIS marked & FIA & TAC approved, with flexible conductor.

1.12 PVC Casing and Capping

1.12.1 Fixing casing-capping

PVC casing and capping shall be BIS marked. PVC casing and capping should be strong and properly fitted so as to hold wires laid in it 70% to its full capacity for all areas. It should be rigidly screwed at 150mm interval crosswise with suitable woodscrews of 25mm length turned in PVC sleeve inserted in neatly drilled holes of proper size and depth with cup washer to give proper grip over more surface area. Providing and fixing of PVC casing and capping include bends, elbows, tees, inside and outside corners, round blocks and painting. It can be run whether in horizontal or vertical position as required. The inspection shall be done from time to time as the work progresses. Capping shall not be put on until the work has been inspected after the wires are laid in position and approved by the Engineer-in-charge.

1.12.2 Providing earth continuity wires : The earth continuity wire shall be provided in the casing throughout the length of wiring. The size of earth continuity wire shall be same size with the main wire for circuits. All metallic parts, switchboards, light fittings and power sockets shall be connected to the earth wires and the connection shall be electrically and mechanically sound.

1.13 PVC Conduits :

1.13.1 All rigid conduit pipes shall be of medium duty PVC conduit of standard quality and be BIS marked.

1.13.2 The conduit wiring system shall be complete in all respects, including their accessories. Where a large number of control switches and/or fan regulators are required to be installed at one place, these shall be installed in more than one outlet box adjacent to each other for ease of maintenance.

1.13.3 Bunching of cables in conduit : Cables shall always be bunched so that the outgoing and return cables are drawn into the same conduit. Where the distribution is for three phase loads only, conductors for all the three phases and neutral wire shall be drawn in one conduit.

1.14 WIRING ACCESSORIES :

1.14.1 Control switches for points : Control switches (single pole switches) carrying not more than 16A shall be modular type complete with plate, as specified, and the switch shall be #ON# when the knob is down. Control switch shall be placed only in the live conductor of the circuit. No single pole switch or fuse shall be inserted in the protective (earth) conductor, or earthed neutral conductor of the circuit.

1.14.2 Socket outlets :

6/16 pin Socket outlets shall be of shutter type modular complete with plate. These shall be rated either for 6A, or 16A. Combined 6 pin 6A/16A pin socket outlet shall be provided in 'power' circuits wherever specified. 6A Socket outlets shall only be of 5 pin type; the third pin shall be connected to earth through protective (loop earthing) conductor. The control switches for 6A and 16A socket outlets shall be kept along with the socket outlets. Generally socket outlet shall be installed at a height of above 30 cm but below 130 cm from the floor level. The layout of wiring shall be as approved by Engineer in Charge.

1.14.3 Switch box covers:

These shall be modular type of suitable size.

1.15 FITTINGS:

1.15.1 Indoor type fittings specification :

Mirror optic suspension/recessed type LED luminaire with all accessories and LED drivers, ready for installation as per the following description.

1)Optical system should provide all round glare and beam control.

2)Luminaire shall be supplied with:

a)For 2 x2 LED luminaire, minimum output Lumen shall be 3200 and colour temperature shall be in between 5500-6500K.Driver shall be external and efficacy shall be 90%. Power factor >0.9, THD < 10% , IEC Compliant for safety.

b)For LED Batten 4ft long Luminaire ,minimum output Lumen shall be 1700Lumen and efficacy shall be more than 85%.Power factor >0.9, THD < 10%.

c) For LED Batten 2ft long Luminaire ,minimum output Lumen shall be 1300 Lumen and efficacy shall be more than 85%.Power factor >0.9, THD < 10%.

d) For LED downlight, minimum lumen out shall be 1200 Lumen,CRI>80%,driver shall be constant current non integrated, Optics High Efficiency diffuser with more than 85% Transmittance.

2)Luminaires shall be supplied with all standard accessories (including chains etc. if required) for suspension mounting.

Power supply: 230/240v, 50 Hz, single phase

Make: Philips/Bajaj/Crompton Greaves/GE/Havells/Osram/HPL

The type of fittings shall be as specified in BOQ.

1.16 PRE-WIRED MCB DISTRIBUTION BOARDS :

Pre wired MCB DB's shall be provided only where specified.

The complete board shall be factory fabricated and shall be duly pre wired in the works, ready for installation at site. The board shall be of wall mounted, cubicle type construction, fabricated out of 1.6mm thick sheet steel, with stove enameled paint finish. The board shall also be provided with a loose wire box as a compartment for the complete width and, depth of the board, and of minimum height of 125mm in case of TPN DB's, and 100mm in case of SPN DB's. The board shall be provided with a hinged cover of 1.6mm thick sheet steel in the front. Only the knobs of the MCB's shall protrude out of the front covers through openings neatly machine made for the purpose. Knock out holes at the bottom, and detachable plate with knock out holes at the top of the board shall be provided. Each distribution board shall be provided with a circuit list giving details of each circuit which it controls and the current

rating of the circuit, and the size of the MCB. The board shall be complete with the following accessories:

- a) 100 A copper bus bar(s) for MCB DBs.
- b) 250 A copper busbar for MCCB DB
- c) Neutral link.
- d) Common earth bar.
- e) DIN bar for mounting MCB's
- f) Screw type terminal connectors suitable for incoming and outgoing cables.
- g) Earthing stud(s)

The board shall be fully prewired with single core PVC insulated copper conductors/insulated solid copper links, and terminated on to extended type terminal connectors, suitable for connections to the sizes of the respective conductors. All incoming and outgoing wiring to the pre wired MCB DB's shall be terminated only in extended terminal connectors to be provided within the DB. The terminal connectors shall, therefore, be so provided as to facilitate easy cable connections and subsequent maintenance. Elmex connectors are to be provided. A common copper earth bar shall be provided within the loose wire box. The common neutral bar as well as the terminal connectors shall, however, be provided within the main compartment just below the loose wire box.

1.17 MINIATURE CIRCUIT BREAKERS (MCB's) : 'C' series MCB's shall be invariably used for all loads. Ratings (A), number of poles, type as MCB or isolator, etc. shall be as specified in the BOQ. The MCB's shall be of minimum 10KA rupturing capacity.

1.17 SWITCH BOARD LOCATIONS :

1.17.1 General aspects : Switch boards shall be located as indicated on the drawings or as instructed by OIL's engineer. However exact location will be as per suitable available spaces.

1.18: A switch board shall be installed so that its bottom is 1.30 m from the floor level. Where it is required to terminate a number of casing capping or conduits on a board, it may be convenient to provide a suitable PVC adopter box for the purpose. Such boxes shall be provided with the prior approval of the Engineer-in-charge (Electrical) and this will not be paid for separately. No apparatus shall project beyond any edge of the panel.

1.19 FANS, REGULATORS AND CLAMPS :

1.19.1 Fan Regulators : Electronic modular type fan regulator shall be from approved vendor. The regulators are to be procured from authorized dealer to ensure genuineness of the material. Fan regulator shall be fixed in the switch board as per the ceiling fan circuit shown in the drawing.

1.20 WORKMANSHIP : Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound Engineering practice. The work shall be carried out under the direct supervision of a person holding a valid supervisor's certificate of competency issued by the State Govt. for the type of work involved, employed by the contractor,

who shall rectify then and there the defects pointed out by the Engineer-in-charge (Electrical) during the progress of work.

1.21 COMMISSIONING ON COMPLETION : After the entire wiring is completed, a joint inspection shall be carried out. The contractor shall rectify the defects pointed out by OIL during inspection. The works shall be tested by the contractor and contractor shall submit the test certificates duly signed by the competent persons. The system shall be energised only after OIL approves the work done and submission of test certificate along with the documents(Where ever applicable) mentioned below:

- a)Layout of all equipment, switch boards, DB's etc.
- b)Manufacturers test report & data sheets for equipment's if any.
- c)Single line diagram
- d)Cable schedule, DB Charts
- e)Schematic diagram for overall electrical distribution duly laminated
- f)GA & schematic MV Panel Distribution Boards UPS etc.

APPENDIX-A:APPROVED MAKE OF MATERIALS

i)SINGLE CORE BIS MARKED COPPER FRLS INSULATED STRANDED FLEXIBLE 1100 V GRADE CABLE AS PER IS 694.

FINOLEX/HAVELLS/L&T/POLYCAB/RR KABEL/OR ANY BIS APPROVED MAKE

ii)COPPER LUGS:DOWELL/3D-BILLET/JAINEX/SCHNEIDER(MERLIN GERIN)

iii)BIS MARKED PVC CASING CAPPING

PRESTO PLAST/AKG/PLAZA/RICHA/Equivalent

iv)METAL CLAD SWITCH SOCKET UNIT- 20/25Amps.

LEGRAND/SCHNEIDER (MERLIN GERIN)/SIEMENS/HAVELLS/INDO-ASIAN

v)CEILING FAN, 1400 mm Sweep, White in Color.

HAVELLS (Pacer)/BAJAJ (Kassels)/ORIENT (PSPO)/USHA /Crompton Greaves

vi) LIGHT FITTINGS SIMILAR TO PHILIPS/Crompton Greaves/Bajaj/Surya/Syska/HPL/Bajaj MAKE:

a) Similar to Philips make RC380B G2 LED35S-6500 PSU OD WH

b) Similar to Philips make BN150W LED20S-6500 PSE OD GR

c) Similar to Philips BN150W LED13S-6500 PSE OD GR

d) Similar to Philips- DN 393B LED12S-6500PSR WH

vii)MCCB with electronic/microprocessor/Thermal release.

LEGRAND/SCHNEIDER/SIEMENS/ABB/INDO-ASIAN/HAVELLS/L&T

viii)MCB'S & MCB DBs (10KA, C- curve, IP54).

LEGRAND/SCHNEIDER/SIEMENS/ABB/INDO-ASIAN/HAVELLS/L&T

ix)Modular switches/Socket/Box -Make& Model.

LEGRAND(Myrus)/SCHNEIDER(Vivace)/CRABTREE(Murano)/Indo Asian(Elvira)

x)Modular Fan regulator 100W.

LEGRAND(Myrus)/SCHNEIDER(Vivace)CRABTREE(Murano)/ Indo Asian(Elvira)

OTHER ITEMS:

AS APPROVED BY THE ENGINEER-IN-CHARGE OR AS PER BOQ AND SPECS.

4. The bidder shall also furnish following information / documents along with the bid. Company reserves the right to reject the bid in the event of non submission of such information / documents.
- Wherever applicable, the bidder shall have itself registered under Employees' Provident Fund and Miscellaneous Provisions Act, 1952 and follow the relevant statutory provisions including Rules made there-under concerning contractual workers to be engaged by such bidder. The bidder shall furnish the Provident Fund code number issued by the appropriate Govt. Authority, with supporting documents, or a declaration / undertaking in stamped paper in the **Format Annexure-I.**
5. The bidder shall furnish following information / documents on issuance of LOI within 15 (fifteen) days from the date of issuance. Company reserves the right to cancel the contract / LOI if these documents are not submitted within the stipulated period.
- a. PAN, VAT Registration number (Not required for OIL registered contractors).
 - b. Service Tax Registration number issued by the appropriate Govt. Authority or exemption certificate from the concerned authority or a declaration / undertaking in stamped paper in the prescribed Format to the extent that provisions of the Service Tax are not applicable to him / her / them and in the event of any claim from the Service Tax Authority upon Company at a later date with respect to the services provided under the contract, the bidder shall deposit such amount to the Company, as per the rules applicable from time to time.
6. The bidder must provide the following minimum numbers of equipment in operational condition capable of providing uninterrupted services under the contract as and when required.

LIST OF MATERIALS & EQUIPMENTS TO BE SUPPLIED BY CONTRACTOR:

- Concrete Mixture Machine - 02 (two) nos.
- Concrete Vibrator (Needle Type) - 04 (four) no.
- Sump Pump - 02 (two) nos.
- Cube mould (150mm x 150mm x 150mm) - 09 (nine) nos.
- Welding set - 01 (one) nos.

7. (I) The following check list to be enclosed (uploaded) by the bidder along with the bid document:-

CHECK LIST:

| SL NO | DESCRIPTION | |
|-------|--|-----|
| 1 | Location /construction site visited & assessed. | YES |
| 2 | Item descriptions clearly understood and availability of materials verified. | YES |
| 3 | Understood that Mandatory Material tests to be performed (wherever applicable) | YES |

| | | |
|---|---|-----|
| 4 | PF code No. / Annexure-I as per clause no. 4.0 of Part-III SCC have been submitted by me /us | YES |
| 5 | Bid validity from the date of technical bid opening is 90 days | YES |
| 6 | <p>I / We shall provide the following minimum numbers of equipments in operational condition capable of providing uninterrupted services under the contract as and when required, failing which company shall have the right to terminate the contract, besides taking action as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.</p> <p><u>List of equipment's:</u></p> <ul style="list-style-type: none"> • Concrete Mixture Machine - 02 (Two) nos. • Concrete Vibrator (Needle Type) - 04 (Four) nos. • Sump Pump - 02 (Two) nos. • Cube mould (150mm x 150mm x 150mm) - 09 (Nine) nos. • Welding set - 01 (One) nos. | YES |

Bidder(s) should clearly understand these criteria before submission of the bid and in case of any doubt he / she / they may seek clarification from Engineer – in charge / GM-Civil Engineering department, before submitting the bid.

(II) Information / List of other Civil works contract, if any, being executed by the bidder(s) in his / her / their firm's name in OIL and expected to continue beyond 6 months time from date of opening of bid document to be furnished to GM-Civil by all bidders before issuance of work order.

(III) Company reserves the right to debar the bidder / contractor during processing of tender and / or during continuation of the contract as per OIL's banning policy dated 6th Jan 2017 available at OIL's website.

8. Defect liability period shall be 6 months beyond the date of completion of works as certified by Engineer-In-Charge. During defect liability period, all corrective works shall be carried out entirely at Contractor's own expenses. If such corrective works are not carried out within a reasonable time, the Company, at its discretion, may have such remedial works carried out by other agencies and charge the cost thereof to the Contractor. This amount shall be deducted from contractor's bill/Retention money/ Performance security.

Part- IV SCPME
OIL INDIA LIMITED
(A Govt. of India Enterprise)
Contracts, Duliajan
WORKS CONTRACT
Schedule of company's Plants, Materials and Equipments
E-Tender No.CDI4014P17

- A. SCHEDULE OF MATERIALS AVAILABLE AT THE COMPANY'S STORES/STOCK PILES for permanent incorporation in works and
- B. SCHEDULE OF COMPANY'S PLANTS AND EQUIPMENTS for use in the execution of work.

MATERIALS :

a. Cement :- Cement will be supplied by company.

Note: All empty Cement bags must be returned to material's Go-down, Duliajan failing which a sum of Rs.8.00(Rupees Eight) only per bag will be recovered from contractors bill.

(b) Plants and Equipments: -Nil

NOTE:-

- 1.The Contractor is to arrange transport of the above materials to site of work with proper safety.
- 2.If the materials listed above are not available suitable substitute will be provided by the Company and Contractor shall incorporate the same in the works without extra cost.
- 3.Containers must be returned to Company in good condition.
- 4.Plants and equipment if issued to Contractor must be under proper watch so that no part is pilfered. These must be handled only by Company's operators. Contractor shall be responsible for any loss or damage to these plants and equipment while these are under his/their custody.
- 5.Materials issued to Contractor must be under proper watch & ward so that no part is pilfered. If any pilferation takes place the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the materials issued.
- 6.Cement issued to Contractor by the Company is meant only for the specific Company work relating to the Contract. However, if any quantity of Cement is left over from the quantities issued for any reason whatsoever, on the completion / cancellation / termination of the Contract the same shall have to be returned to the Company in full within one week of completion/cancellation

of the work failing which the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the Cement.

7. Bitumen issued to Contractor by the Company is meant only for the specific Company work relating to the Contract. However, if any quantity of Bitumen is left over from the quantities issued for any reason whatsoever, on the completion / cancellation / termination of the Contract the same shall have to be returned to the Company in full within one week of completion/cancellation of the work failing which the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the bitumen.

8. All other materials issued to the Contractor by the Company if subsequently found to be in excess of the actual requirement will have to be returned by the Contractor within two weeks of completion of the work failing which the cost of all such materials will be recovered from the Contractor at double the value of materials without any reference to him.

Tender No: CDI4014P17

PART-V SAFETY MEASURES

To,
GM-CONTRACT
OIL INDIA LIMITED
DULIAJAN-786602

SUB: SAFETY MEASURES

DESCRIPTION OF WORK/SERVICE: - Construction of Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement.

Sir,

We hereby confirm that we have fully understood the safety measures to be adopted during execution of the above contract and that the same have been explained to us by the concerned authorities. We also give the following assurances.

- a) Only experienced and competent persons shall be engaged by us for carrying out work under the said contract.
- b) The names of the authorized persons who would be supervising the jobs on day to day basis from our end are the following:
 - i) _____
 - ii) _____
 - iii) _____

The above personnel are fully familiar with the nature of jobs assigned and safety precautions required.

- c) Due notice would be given for any change of personnel under item(b) above.
- d) We hereby accept the responsibility for the safety of all the personnel engaged by us and for the safety of the Company's personnel and property involved during the course of our working under this contract. We would ensure that all the provisions under the Oil Mines Regulations, 1984 and other safety rules related to execution of our work would be strictly followed by our personnel. Any violation pointed out by the Company's Engineers would be rectified forthwith or the work suspended till such time the rectification is completed by us and all expenditure towards this would be on our account.
- e) We confirm that all persons engaged by us would be provided with the necessary Safety Gears at our cost.

Tender No: CDI4014P17

- f) All losses caused due to inadequate safety measures or lack of supervision on our part would be fully compensated by us and the Company will not be responsible for any lapses on our part in this regard.
- g) We shall abide by the following HSE (Health Safety & Environment) points:

GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) POINTS:

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 Contractor 1 Company SCC 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.

Tender No: CDI4014P17

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.

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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.

(Seal)

Yours Faithfully

Date_____

M/s_____

FOR & ON BEHALF OF CONTRACTOR

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 Security Office Buildings, Drivers Toilet & Bathroom, Dismantling & Reconstruction of part Boundary wall with 2 (two) nos. Gate Installation at Industrial Area for newly proposed alternate Entry / Exit at Duliajan including supply of all materials except Cement.** 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 Organisation "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:-

- I. 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.
- II. 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.
- III. The Principal will exclude from the process all known prejudiced persons.

Contractor

Company

- (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.
- I. 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 he/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.
- ii. 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 cartelisation in the bidding process.
- iii. 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.
- iv. 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.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

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.

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 3 % of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.
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 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

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 Bidder/Contractor undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
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
(three in number depending on the size of the contract)
(to be decided by the Chairperson of the Principal)**

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.
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.
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,

Contractor

Company

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.

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.
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 is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
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 intentions.

For the Principal

for the Bidder/Contractor

Place: Duliajan.

Witness 1:

Date:

Witness 2:

Contractor

Company

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

(A). BID EVALUATION CRITERIA (BEC):

1.0 The bid shall conform generally to the specifications and terms and conditions given in the Tender Documents. Bids will be rejected in case services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding 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 must be submitted along with the Techno-Commercial Bid.

2.1 Interested bidders shall have to submit the following documents to qualify for opening of the Price Bid:

2.1.1

- a. One successfully completed similar work of value ₹ 55,21,000.00 under tender with CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking during the last seven (07) years reckoned from the original bid closing date.
- b. For proof of requisite experience of SIMILAR work, Job Completion Certificate clearly mentioning Gross value of job done, Nature of works, Contracts period/Contract Start and Completion date issued by CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking must be submitted along with the bid.
- c. SIMILAR work executed by a bidder for its own organization / subsidiary will not be considered as experience for the purpose of meeting BEC.

2.1.1.1 The bidder must possess a valid electrical contractor's license issued/endorsed by Electrical Licensing Board of Govt. of Assam or else have tie up with an Electrical Firm / contractor holding valid electrical contractor's license issued/endorsed by Electrical Licensing Board of Govt. of Assam. The bidder or their collaborators must have experience in internal electrification works in Office/ Residential Building during the last 7(seven) years reckoned from the original bid closing date in any organizations as listed in Civil Experience. In case of collaboration with any Electrical firm as mentioned above, the bidder must furnish an MoU entered into with the collaborator towards providing the requisite service as per the terms of the contract.

2.1.2

- a) Annual Financial Turnover of the bidder during **any of preceding three financial / accounting years from the original bid closing date** should be at least ₹ 33,13,000.00.
- b) **Net worth** of bidder must be positive for preceding financial/ accounting year.
- c) 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 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(as the case may be) has actually not been audited so far.

Note: For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-

- i) A certificate issued by a practicing Chartered/ Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover& Net worth as per format prescribed in **Annexure-II**.

OR

- ii) Audited Balance Sheet along with Profit & Loss account.

Note: In case the bidder is 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 evidence for the same.

2.1.3 Bids must be valid for minimum 90 (Ninety) days from the date of Bid opening. If bidder does not submit / declare bid validity period, it will be presumed that the bid validity is 90 (Ninety) days.

Note: In case of extension of Bid Opening Date, Bid validity must be extended suitably by the bidder, as and when advised by OIL.

2.1.4 Bid Security must be furnished (except those exempted) as a part of the Technical Bid. Bidders already having User ID & Password for OIL's e-portal can pay the requisite Bid Document cost & Bid security against the individual IFBs through the online payment gateway on or before 1:30 p.m. on the bid closing date. Alternatively bidder can submit Bid Security (in original) amount through Bank Guarantee/LC, which must reach the Office of GM-Contracts, OIL, Duliagan on or before 1:30 p.m. on the bid closing date. **Bid Security (EMD):-** Only payments through online payment gateway or Bank Guarantee/LC (to be submitted in original) will be acceptable. **DD/Cheques/Cashier Cheque etc. will not be acceptable.**

The amount of Bid Security shall be as specified in the NIT.

Note:

- (a) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for minimum 120 days from the date of bid opening.
- (b) In case of extension of Bid Opening Date, Bid Security validity must be extended suitably by the bidder, as and when advised by OIL.

2.1.5 OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Part-VI 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 sign 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 have been signed by the bidder's authorized signatory who sign the Bid.

2.1.6 The bidders must submit documentary evidence for BEC clause numbers **2.1.1 and 2.1.2.** All the documents should be legible. The bidders must upload all the documents, digitally signed with "Organizational type" Digital Signature Certificate having Organization's name.

OIL registered 'A' class bidders are exempted from submitting documents fulfilling their experience & turnover criteria as well as depositing the bid security amount as specified in the Clauses 2.1.1, 2.1.2 & 2.1.4 of BEC/BRC of this tender document, providing submission of his/her/their revised "One Time Security Deposit" in line with OIL's notification no.: CONT/CIV/1296/2016 dated 25.08.2016, on or before 13:30 Hrs. of Bid Closing/Opening date of this tender.

3.0 Notes to Clause no. 2.1.1 above:

(a) **“Similar work”** mentioned in Paragraph 2.1.1 above means the following:

Definition of similar work: Construction of R.C.C. building.

(b) Non-submission of the documents as specified in all the paragraphs above will result in rejection of bids.

4.0 SUBMISSION OF FORGED DOCUMENTS: Bidders should note that Company may verify authenticity of all the documents /certificates / information submitted by the bidder(s) against the tender. In case at any stage of tendering process or Contract execution etc., if it is established that bidder has submitted forged documents / certificates / information towards fulfillment of any of the tender / contract conditions, Company shall immediately reject the bid of such bidder(s) or cancel / terminate the contract and forfeit EMD / SD submitted by the bidder(s), besides taking action as per OIL's banning policy dated 6th January 2017, available in the OIL's website.

5.0 The bids conforming to the specifications, terms and conditions stipulated in the tender documents and considered to be responsive will be evaluated as per the procedure mentioned below:

- i. Bid will be opened on schedule date & time as specified in the NIT and all the bids where the bidders have quoted the lowest price (within the permissible percentage as per NIT) will be selected for conducting Draw of Lots (DoL). DoL will be conducted within a short period after Bid Closing Date. In the DoL, 7 (seven) numbers of bidders will be selected first, in the order of B-1 (Bidder-1), B-2 B-3, B-4, B-5, B-6 and B-7. The technical scrutiny will be carried out for these seven bidders only. If the bid of bidder B-1 is found to be technically qualified, B-1 will be the successful bidder (Priority-1 bidder) and the contract will be awarded to B-1. If B-1 is not found to be technically qualified but B-2 is technically qualified, B-2 will be awarded the contract, ---- and so on; i.e. whoever becomes the first technically qualified bidder in the order of B-1 →B-2→B-3→ B-4→ B-5→ B-6→ B-7, will be the successful bidder (P-1). In this way, P-1 (Priority-1) and P-2 bidders will be selected. The contract will be awarded to the P-1 bidder only. However, in case the bidder P-1 is not able to carry out the job due to any reason (action will be taken as per the OIL's banning policy dated 6th January 2017, available in the OIL's website), P-2 may be awarded the job, if the same is approved by Company's competent authority. In case, none of these seven bidders are found to be technically acceptable, the draw of Lot will be again conducted to select 7 more bidders as B-8 to B-14 and similar steps will be followed thereon as explained above. The system of conducting further draw of lots will be followed till a technically acceptable bidder is selected.

- ii. Bidder should note that deficit documents will not be sought from the bidders. The bids will be evaluated as per the documents received from the bidders at the time of bid opening. Any bid, which is not supported with the requisite documents as per the NIT, will be rejected straightway without seeking any further clarification and deficit document.

Note: The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & Service Tax.

(B). BID REJECTION CRITERIA (BRC):

1. The bids are to be submitted in single stage under composite bid system i.e. Un-priced Techno-Commercial Bid and Price Bid together. Only the Price Bid should contain the quoted price (percentage only).
2. Bid security shall be furnished as a part of the Techno Commercial Un-priced Bid. The amount of bid security should be as specified in the NIT. Any bid not accompanied by a proper bid security will be summarily rejected.
3. Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable. Bid made by parties who have not submitted the requisite tender fees will be rejected.
4. Any bid received in the form of Physical document/ Telex/Cable/Fax/E-mail will not be accepted.
5. Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price 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 other than price details to be submitted with Un-priced Techno-Commercial Bid as per tender requirement in the c-Folder link (collaboration link) under "Technical RFx Response" Tab Page only.
6. Bidder must accept and comply with the following provisions as given in the Tender Document. Deviations to such provisions shall make the bid liable for rejection.
 - a. Firm price
 - b. EMD / Bid Bond
 - c. Period of validity of Bid
 - d. Price Schedule
 - e. Performance Bank Guarantee / Security deposit
 - f. Delivery / Completion Schedule
 - g. Scope of work
 - h. Guarantee of material / work
 - i. Liquidated Damages clause

- j. Tax liabilities
- k. Arbitration / Resolution of Dispute Clause
- l. Force Majeure
- m. Applicable Laws
- n. Specifications
- o. Integrity Pact

(C.) GENERAL:

- i. 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 BRC.
- ii. 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 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.
- iii. If any of the clauses in the BRC contradict with other clauses of bidding document elsewhere, the clauses in the BRC shall prevail.
- iv. 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.
- v. OIL will not be responsible for delay, loss or non-receipt of applications for participating in the bid sent by mail and will not entertain any correspondence in this regard.

Annexure-I

(ON THE NJSP OF RS.100/-)

TO BE NOTORISED

To
GM-CONTRACTS
OIL INDIA LIMITED
DULIAJAN

Dear Sirs,

**Sub: UNDERTAKING/DECLARATION BY THE BIDDER (S) IN
RESPECT OF TENDER NO. CDI4014P17**

(To be submitted by the Bidders who are not covered under EPF&MP Act, 1952)

This is in connection with the Bid submitted by(Name of the Bidder) against Tenderfor(subject of the Tender). As per the conditions stipulated in Clause no.....(Name of the Provision/SCC etc.), we/I ,being authorized on behalf of(Name of the Contractor) hereby confirm and undertake as follows;

- That our Firm/Company shall be responsible to comply with all the applicable labour laws in respect of the present Contract.
- That we are fully conversant with the applicable laws and confirm that our Firm/Company is not covered under the Employees Provident Funds and Misc. Provisions Act, 1952 and applicable Rules there under, and therefore I we have not obtained any registration or Provident Fund Code under the Act.
- That if, during the period of the present Contract, we/our Firm /Company comes within the coverage of the aforesaid Acts or any other statutes; we shall comply with the same and submit the necessary documents to OIL. We further confirm that we will indemnify OIL towards any future statutory compliances/claims raised from any corner including statutory authorities against the Labour engaged by our Firm/Company in the Contract.
- That in the event of any contravention towards the applicable laws found on our part in respect of the present Contract, we undertake to indemnify OIL and deposit the claims, if any.

Annexure-I

- That we shall fulfill all the obligations arising from under the labour laws in force from time to time and keep OIL indemnified against any loss/liability arising out of failure of our avoiding the laws.

We, further agree and undertake that in case of any violation of the above undertaking, OIL shall be at liberty to take appropriate action against us in terms of the Tender including but not limited to termination of contract and debarment from future business with OIL.

I/We declare that the information given above is true and any misstatement or misrepresentation or suppression of facts in connection with the above undertaking may entail rejection of the bid and cancellation of contract, if awarded.

Yours faithfully,

1. Authorized Signatory _____
(BIDDER)

Place:-

Date:-

CERTIFICATE OF ANNUAL TURNOVER & NET WORTH

TO BE ISSUED BY PRACTISING **CHARTERED ACCOUNTANTS' FIRM** ON THEIR LETTER
HEAD

TO WHOM IT MAY CONCERN

This is to certify that the following financial positions extracted from the audited financial statements of
M/s..... (Name of the Bidder) for the last three (3) completed accounting years upto
.....(as the case may be) are correct.

| YEAR | TURN OVER In INR (Rs.) | NET WORTH In INR (Rs.) |
|-------------|----------------------------------|----------------------------------|
| | | |
| | | |
| | | |

Place:

Date:

Seal:

Membership No. :

Registration Code. :

Signature