# Bharat Heavy Electricals Limited

(A Govt. of India Undertaking)

Power Plant Piping Unit, Thirumayam – 622 507, Tamil Nadu

## Tender Notice

**NOTICE INVITING e-TENDER**

Ref: **Tender No. PPPU: WC: 26: 007 dt. 01.06.2026.**

Subject: Two-part e-Tender inviting techno-commercial and price bids for "**Civil AMC Works at PPPU, Thirumayam (Except Plumbing repair works but including new plumbing works)**"

**Kindly submit your competitive offer for the above subject work as per the tender terms and conditions given in the tender document through e-procurement portal https://eprocurebhel.co.in/nicgep/app only.**

| | |
|---|---|
| Scope of work | **Civil AMC Works at PPPU, Thirumayam (Except Plumbing repair works but including new plumbing works)** (Scope of work and technical terms & conditions as per Techno- Commercial Part-I bid.) |
| Location of work | **BHEL PPPU Thirumayam -622507 (Tamilnadu)** |
| Duration of Contract | **15 Months** from the date of commencement of work **as indicated in LOI.** |
| Last date/ time for receipt of tender | **10:00 Hrs on dt. 11.06.2026** |
| Commencement of work | **On the date of commencement mentioned in the LOI** |
| Date / Time & place for opening of Techno-commercial bids | **14:30 Hrs. on 11.06.2026 via On line through e-procurement by Contracts, PPPU, Thirumayam**<br>(In case of any change in opening date, if any, will be intimated later.) |
| Date/Time of Price Bid Opening | **The date/ time of price bid opening will be intimated separately.** |
| EMD AMOUNT | **Not applicable** |
| Working Area Contact details | **Sr Manager / Civil**<br>Power Plant Piping Unit, BHEL -Thirumayam – 622507,<br>Contact No. **04333-279392, 9489202809**<br>Email ID: thambiraja@bhel.in<br>Vendors may visit the work area prior to submission of offer to understand the details of scope of work |

JAYARAM BALAKRISHNAN CRANGANORE

Digitally signed by JAYARAM BALAKRISHNAN CRANGANORE
Date: 2026.06.01 09:30:54 +05'30'

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# Buyer Added Bid Specific Additional Terms & Conditions (ATC)

**1. PRE QUALIFICATION CRITERIA:**

1.1. **TECHNICAL:**

1.1.1. **STATUS OF THE COMPANY:**

- Proprietorship: PAN card on owner name
- For partnership firms: PAN card and PARTNERSHIP DEED
- For others: PAN card in the name of company / firm / business and CERTIFICATE OF INCORPORATION / MOA and AOA.
- GST Registration certificate

*As per point no. 1.5 of GCC.

1.1.2. Tender document (all pages) & Duly filled Checklist (Annexure-1) to be Signed & seal by bidder's Authorized signatory along with annexures.

1.1.3 No deviation certificate on bidder's Letter head

1.1.4 Local Content Self Declaration on bidder's Letter head

1.1.5 The bidder should furnish details of successfully executing similar works in the last 7 years as on the date of tender opening as follows:

At least Three similar works each not less than Rs. 12.00 Lakhs
Or
At least Two similar works each not less than Rs.15.00 Lakhs
Or
At least One similar work not less than Rs.24.00 Lakhs

Similar Work means "Any kinds of Civil Construction/ Maintenance works including excavation, masonry, RCC works, plumbing, carpentry, steel, glazing, roads etc.,"

For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at simple rate of seven percent per annum, calculated from the date of completion to the last day of month previous to the one in which tender applications are invited.

Place:
Date:

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Proof of Work Order / Purchase Order/ Experience certificate should be attached. Proof of experience from any organization other than BHEL Trichy/ Thirumayam to be supported by TDS (Tax Deducted at Source) certificate issued by the organizations OR Form 26 AS or bank statement for transaction of payment.

## 2 SCOPE OF Work:

Since this contract is of Maintenance contract in nature, the works will be given as sub work orders with separate delivery due dates for each sub work order. The contractor should undertake to execute any of the items listed in the attached BHEL Schedule of Rates - SR 13-14 at the quoted percentage without any reservation to any of the items in the SR. A copy of BHEL SR 13-14 with description of work, Unit of Measurement and the SR Rate, duly signed and sealed should be attached with the tender document.

Plumbing repair works for example: attending to water leakages, blockages etc., will NOT be covered under this contract.
New Plumbing works for example: replacement of broken ceramic ware (Wash basins, urinals, laying of new pipelines etc.,) and civil works for example: Repairs, improvements to compound wall, Concrete approaches for entrances of shop floors, bays, storage yard are INCLUDED in this contract.

All tools, plants, machinery, manpower, PPEs, sand/ M-Sand, aggregates, vendor supply items as per BHEL SR 13-14 etc., are under contractor's scope.

BHEL General Conditions of Contract and Special Conditions of Contract shall be part of tender terms

Note: BHEL Schedule of Rates - SR 13-14 shall be part of tender terms document.

**BHEL SCOPE**
The required power, compressed air, water, cement, reinforcement steel, structural steel, SSTP tubes will be given by BHEL free of cost.

## 2.1 BILL OF QUANTITY:

| SL NO | DESCRIPTION OF WORK | VALUE OF THE CONTRACT (Rs.) |
|---|---|---|
| *1* | *All Items of BHEL SR 2013-14 except those that are plumbing maintenance in nature, but includes entirely new plumbing and sanitary ceramic fittings like Urinals, WCs, Wash basins etc.,* | Rs. 30,00,000/-<br>(Rupees Thirty Lakhs Only) |

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**2.2 Tender Price:**

a) Unless explicitly stated in the tender document, the contractor shall be responsible for the whole works, based on the schedule of works, bill of quantities and payment shall be made as per accepted rates based on the activities carried out as in the scope of work.

b) While quoting the "service charge", bidders should consider all cost elements like financing cost, cost of maintenance of accounts, insurance-premium overheads, profit margins, conveyance charges, amount of security deposit, statutory requirements / obligations, contractual obligations and any other expenditure as deemed relevant by the bidder or cost of any other item under its scope and to meet any expenses / exigencies (including bearing of penalty by bidder as per tender document) so as to ensure continuity of services. While quoting the price, the bidder must keep in view the prevailing applicable minimum wages of the Government of Tamilnadu. It is the responsibility of the bidder to educate himself about all obligations to be performed under the contract, the financing cost, administrative expenses, statutory liabilities, etc and then submit the price accordingly.

c) The Minimum Wages as prescribed by the State Government from time to time should be paid to the contract Workers and the Wage and Attendance Registers should be produced to HR department every month.

The minimum wages are given below for reference: (w.e.f 01/04/2026)

| Sl. No. | Category | Minimum Wages per day (Rs.) | | |
|---|---|---|---|---|
| | | Basic | DA | Total |
| 1 | Unskilled Worker | 258.50 | 298.07 | 556.57 |
| 2 | Semi-Skilled Worker | 271.00 | 298.07 | 569.07 |
| 3 | Skilled Worker | 278.50 | 298.07 | 576.57 |
| 4 | Supervisor | 295.00 | 298.07 | 593.07 |

(The above table is for illustrative purpose only. Latest Govt circular shall be followed.)

**2.3 Applicable Contractual Variations**

Within the validity or any extension of contract thereof, "Service charge" shall remain Firm (in terms of value) without any escalation / variation for any reason, whatsoever, unless specifically provided herein. Contractor's obligation shall remain unaffected by such escalation / variation. However, during the validity of contract period, the contract value will vary depending on the followings:

a. Rates of basic plus VDA (subsequent to floating of this tender), as & when notified by Govt. of Tamilnadu will be applicable in the contract and accordingly the monthly bills of the contractor will get amended against the documentary evidence.
b. Rates of EPF / EPS / EDLI / ESI /Min. monthly bonus etc. (subsequent to floating of this tender), as & when notified by governing statutory authorities will be applicable in the contract and accordingly the monthly bill(s) of the contractor will get amended against the documentary evidence.

**2.4 Evaluation criteria: Splitting of contract is applicable to this work**

**2.5 Payment Terms**

On Submission of error free invoices, certified by User department, along with Joint Measurement records, Logs, duly signed eMBooks and necessary welfare clearances the bills will be processed and payment made by BHEL as per the payment terms and conditions through NEFT/ RTGS to the contractor. Necessary GST Returns have to be filed in due time for claiming of payment of invoice. MSE suppliers can avail the intended benefits only if they submit Udyam Registration Certificate along with the Offer.

The bill will be processed and payment will be made by BHEL after number of days mentioned below (depending on type of bidder) from service entry date in SAP:
(i)90 days for Non MSME Vendors, (ii) 60 days for Medium vendors & (iii) 45 days for MSE vendors

Together with the points mentioned above, please note the following when submitting invoices.
For goods / works / services on Indian Suppliers / Contractors: Irrespective of the value of the invoice amount, the supplier/ contractor should necessarily upload the invoice details on BHEL SUVIDHA portal at https://suvidha.bhel.in/suvidha/, prior to despatch/raising invoice. All documents as per contract checklist, along with additional documents (if any), must be uploaded on the portal. It is mandatory that tax invoices with a net amount (including taxes) exceeding Rs five lakhs uploaded on the portal are digitally signed using a Class 3 Digital Signature Certificate (DSC) issued by a licensed Certifying Authority. Submission of invoice document in hard copy is allowed for invoices with a net amount (including taxes) equal to and upto Rs five lakhs in case the requirement for digitally signed invoice is not explicitly mentioned in the contract checklist.The Invoice will not be accepted in absence of the above.

However, GST amount shall be reimbursed in line with compliance to Cl. No. 4 (Taxes & Duties) above. No Interest payable to Contractor & No interest shall be payable on the security deposit or any other money due to the contractor.

**2.6 Liquidated Damages (LD) / Penalty**

As per Clause 41 of "Compensation for Delay" under BHEL General Conditions of Contract which is given as a separate annexure and to be attached with the tender document.

Additionally, penalty as listed in the section “NON COMPLIANCE OF SAFETY RULES” will be levied if contract employees are violating norms.

**2.7 POLICE VERIFICATION:**

The Police Verification Certificate of each contract worker engaged to be submitted along with Contractors Bills during 1st month for clearance. Police verification for any new contract worker engaged during the contract period is mandatory for obtaining permit to work inside factory premises.

2.9 **CONTRACT PERIOD:**

1.The Contract Execution period will be **15 Months** from the date of commencement of work as stated in LOI.

2. If required, BHEL reserves the right to extend this subject contract for a further period under same terms and conditions subject to mutual acceptance of both parties.

3. If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out, the same shall be communicated to the Contractor and the contract shall be closed.

3 **PRICE BASIS:**

Not applicable

**4 TAXES & DUTIES:**

4.1 The Supplier/Vendor shall pay all (save the specific exclusions as enumerated in this clause) taxes, fees, license, charges, deposits, duties, tools, royalty, commissions, other charges, etc. which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes/duties, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit along with the applicable overheads @5% and interest on the total value (i. e. amount paid by BHEL + overhead)

However, provisions regarding **GST** on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.

**4.2 GST (Goods and Services Tax)**

4.2.1 GST as applicable on output supply (goods/services) are excluded from Supplier/Vendor's scope; therefore, contractor's price/rates shall be **exclusive** of GST. Reimbursement of GST is subject to compliance of following terms and conditions. BHEL shall have the right to deny payment of GST and to recover any loss to BHEL on account of tax, interest, penalty etc. for non-compliance of any of the following condition.

4.2.2 The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between BHEL & its Supplier/Vendor. BHEL shall not consider GST on any transaction other than the direct transaction between BHEL & its Supplier/Vendor.

4.2.3 Supplier/Vendor shall obtain prior written consent of BHEL before billing the amount towards such taxes. Where the GST laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL shall have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Supplier/Vendor.

4.2.5 Supplier/Vendor has to submit GST registration certificate of the concerned state. Supplier/Vendor also needs to ensure that the submitted GST registration certificate should be in active status during the entire contract period.

4.2.6 Supplier/Vendor has to issue Invoice/Debit Note/Credit Note indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder.

4.2.7 Supplier/Vendor has to submit GST compliant invoice within the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, Supplier/Vendor has to provide scan copy of invoice & GR/LR/RR to BHEL before movement of goods starts to enable BHEL to meet its GST related compliances. Special care should be taken in case of month end transactions.

4.2.8 Supplier/Vendor has to ensure that invoice in respect of such services which have been provided/completed on or before end of the month should not bear the date later than last working day of the month in which services are performed.

4.2.9 Subject to other provisions of the contract, GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Supplier/Vendor: -

a) Supply of goods and/or services have been received by BHEL.
b) Original Tax Invoice has been submitted to BHEL.

c) Supplier/Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order.

d) In cases where e-invoicing provision is applicable, Supplier/Vendor is required to submit invoice in compliance with e-invoicing provisions of GST Act and Rules made thereunder.

e) Supplier/Vendor has filed all the relevant GST return (e.g. GSTR-1, GSTR-3B, etc.) pertaining to the invoice submitted and submit the proof of such return along with immediate subsequent invoice. In case of final invoice/ bill, contractor has to submit proof of such return within fifteen days from the due date of relevant return.

f) Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice and in GSTR-2B of the month in which such invoices has been reported by the contractor along with status of ITC availability as "YES" in GSTR-2B. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the Supplier/Vendor.

g) Supplier/Vendor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.

4.2.10 Any financial loss arises to BHEL on account of failure or delay in submission of any document as per contract/purchase order/work order at the time of submission of Tax invoice to BHEL, shall be deducted from Supplier/Vendor's bill or otherwise as deemed fit.

4.2.11 TDS as applicable under GST law shall be deducted from Supplier/Vendor's bill.

4.2.12 Supplier/Vendor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permits, all the e-way bills, road permits etc. required for transportation of goods needs to be arranged by the contractor.

4.2.13 Supplier/Vendor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of Supplier/Vendor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.

4.2.14 In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/altered/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Supplier/Vendor's due payment.

4.2.15 Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Supplier/Vendor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Supplier/Vendor.

4.2.16 In the event of any ambiguity in GST law with respect to availability of input credit of GST charged on the invoice raised by the contractor or with respect to any other matter having impact on BHEL, BHEL's decision shall be final and binding on the Supplier/Vendor.

**4.2.17 Variation in Taxes & Duties:**

Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability.

In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its Supplier/Vendor only and within the contractual delivery period only.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer but before opening of the price Bid, the Bidder/ Supplier/Vendor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

4.3 **Income Tax**: TDS**/TCS** as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from Supplier/Vendor's bill.

**(5.) SUBMISSION OF BILLS BY CONTRACTOR:**

Bills should be submitted within a week after execution of work during the calendar month/ quarter. The Contractor shall submit a bill in triplicate detailing the various items of work done during the month/ quarter supported by the requisitions issued from time to time. The Contractor shall, once in every quarter, submit to the end user / executing agency, separately details of his claims for the work done by him up to and including the previous month which are not covered by his contract agreement in any of the following respects:

i) Deviation from the items provided in the contract documents.
ii) Extra items / new items of work.
iii) Items in-respect of which rates have not been settled. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done up to and including the period under report.
iv) Along with bills, Contractors has to furnish self-attested copy of the following documents for further processing of bills:
v) Copy of PAN card.
vi) Documentary proof for payment of PF/ESI (for the last month) with respect to the employees engaged by the contractor with payment details relating to individual names to be submitted.

vii) Copy of payment challan of previous Month / Quarter as proof of deposit of GST along with a certificate from the Contractor that tax collected from BHEL has been remitted to tax authorities.

viii) If the Contractor is not registered for any statutory obligation and not liable there to, then a declaration shall be submitted along with offer that they are within the threshold limit.

Any other relevant document which is required from time to time as per BHEL requirement.

5 **BANK DETAILS FOR EMD & PERFORMANCE SECURITY SUBMISSION:** For Electronic Fund Transfer the details are as below:

a) Name of the Beneficiary: Bharat Heavy Electricals Limited

b) Bank Particulars (Details of Respectively executing region):

Name of the Company – BHEL, Trichy
Name of the bank - STATE BANK OF INDIA
Bank branch - HEAVY ELECTRICALS, KAILASAPURAM
City –Tiruchirappalli Branch code - 01363
Account Number – 10891588977
Account type – CC
IFSC code - SBIN0001363
MICR code - 620002004

**6 BREACH OF CONTRACT, REMEDIES AND TERMINATION:**

6.1 The following shall amount to breach of contract:

I. Non-supply of material/ non-completion of work by the Supplier/Vendor within scheduled delivery/ completion period as per contract or as extended from time to time.

II. The Supplier/Vendor fails to perform as per the activity schedule and there are sufficient reasons even before expiry of the delivery/ completion period to justify that supplies shall be inordinately delayed beyond contractual delivery/ completion period.

III. The Supplier/Vendor delivers equipment/ material not of the contracted quality.

IV. The Supplier/Vendor fails to replace the defective equipment/ material/ component as per guarantee clause.

V. Withdrawal from or abandonment of the work by the Supplier/Vendor before completion as per contract.

VI. Assignment, transfer, subletting of Contract by the Supplier/Vendor without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.

VII. Non-compliance to any contractual condition or any other default attributable to Supplier/Vendor.

VIII. Any other reason(s) attributable to Vendor towards failure of performance of contract. In case of breach of contract, BHEL shall have the right to terminate the Purchase Order/ Contract either in whole or in part thereof without any compensation to the Supplier/Vendor.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

IX. Any of the declarations furnished by the contractor at the time of bidding and/ or entering into the contract for supply are found untruthful and such declarations were of a nature that could have resulted in non-award of contract to the contractor or could expose BHEL and/ or Owner to adverse consequences, financial or otherwise.

X. Supplier/Vendor is convicted of any offence involving corrupt business practices, antinational activities or any such offence that compromises the business ethics of BHEL, in violation of the Integrity Pact entered into with BHEL has the potential to harm the overall business of BHEL/ Owner.

Note-Once BHEL considers that a breach of contract has occurred on the part of Supplier/Vendor, BHEL shall notify the Supplier/Vendor by way of notice in this regard. Contractor shall be given an opportunity to rectify the reasons causing the breach of contract within a period of 14 days.

In case the contractor fails to remedy the breach, as mentioned in the notice, to the satisfaction of BHEL, BHEL shall have the right to take recourse to any of the remedial actions available to it under the relevant provisions of contract.

**6.2 Remedies in case of Breach of Contract.**

i. Wherein the period as stipulated in the notice issued under clause 14.1 has expired and Supplier/Vendor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.

ii. Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Supplier/Vendor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the Supplier/Vendor, retention amount, from the money due to the Supplier/Vendor etc. with BHEL) or the other legal remedies shall be pursued.

iii. wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:

iv. In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Supplier/Vendor.

v. If Supplier/Vendor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:

a) from dues available in the form of Bills payable to defaulted Supplier/Vendor against the same contract.
b) If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Supplier/Vendor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.

vi. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier/Vendor.

vii. It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Supplier/Vendor for the purpose of estimation of damages.

viii. In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

**Note:**

1) The defaulting Supplier/Vendor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:
   (a) In case defaulted Supplier/Vendor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.
   (b) In case defaulted Supplier/Vendor is The Partnership Firm, any firm comprising of same partners/ some of the same partners; or sole proprietorship firm owned by any partner(s) as a sole proprietor.

## 7 MICRO AND SMALL ENTERPRISES (MSE):

Any Bidder falling under MSE category shall furnish the following details & submit documentary evidence/ Govt. Certificate etc. in support of the same along with their techno-commercial offer.

| Type under MSE | SC/ST owned | Women owned | Others(excluding SC/DT & Women Owned) |
|---|---|---|---|
| Micro | | | |
| Small | | | |

**Note:** If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSE category.

a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit

along with the offer, attested copies of either Udyam Registration. Date to be reckoned for determining the deemed validity will be the last date of Technical Bid submission. Non-submission of supporting document in NIC portal will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if the above required documents are not uploaded at the time of bid submission. Documents submitted by the bidder shall be verified by BHEL for rendering the applicable benefits.

b) If MSEs quoted price is within price band L-1 + 15%, when L1 is non- MSE, the MSEs will be allowed to supply at least 25% of tendered quantity at L-1 rate subject to acceptance by MSEs to L-1 rate. (Minimum of 3% reservation for women owned MSEs and 6.25% for MSEs owned by SC/ST within the above mentioned 25% reservation). In case the contract cannot be split, the full/ complete supply of total tendered value shall be awarded to MSE at L-1 rate subject to acceptance by MSEs to L-1 rate. The preference to the MSEs will be given in order of their ranking L1, L2, L3, etc.

**8 LIQUIDATED DAMAGE:**

Liquidated Damages, wherever referred under this Tender/Agreement, shall mean and refer to the damages, not in the nature of penalty, which the contractor agrees to pay in the event of delay in delivery of supplies, breach of contract etc. as the case may be.

Liquidated Damages leviable upon the Supplier/Vendor is a sum which is agreed by the parties as a reasonable and genuine pre-estimate of damages which will be suffered by BHEL on account of delay/breach on the part of the Supplier/Vendor.

If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract/PO, the Buyer/BHEL will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.

**9 PREFERENCE TO MAKE IN INDIA:**

For this procurement, the local content to categorize a Supplier/Vendor as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIC Bid, the same shall be applicable even if issued after issue of this NIC Bid, but before opening of Part-II bids against this NIC Bid.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**9.1 Compliance to Restrictions under Rule 144 (xi) of GFR 2017:**

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Clause means: -

a. An entity incorporated established or registered in such a country; or
b. A subsidiary of an entity incorporated established or registered in such a country; or
c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
d. An entity whose beneficial owner is situated in such a country; or
e. An Indian (or other) agent of such an entity; or
f. A natural person who is a citizen of such a country; or
g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

IV. The beneficial owner for the purpose of (III) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
   Explanation
   a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
   b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders' agreements or voting agreements.
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

Note:

i. The bidder shall provide undertaking for their compliance to this Clause, in the format provided in Annexure-13. *(Green Highlight is done as per the model document)*
ii. Registration of the bidder with Competent Authority should be valid at the time of submission of bids and at the time of acceptance of the bids.

**10 Settlement of Dispute**

If any dispute or difference of any kind whatsoever shall arise between BHEL and the Supplier/Vendor, arising out of the contract for the performance of the work whether during the progress of contract termination, abandonment or breach of the contract, it shall in the first place referred to Designated Engineer for amicable resolution by the parties. Designated Engineer (to be nominated by BHEL for settlement of disputes arising out of the contract) who within 60 days after being requested shall give written notice of his decision to the contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall forthwith be given effect to by the Supplier/Vendor who shall proceed with the work with all due diligence, whether he or BHEL desires to resolve the dispute as hereinafter provided or not.

If after the Designated Engineer has given written notice of this decision to the party and no intention to pursue the dispute has been communicated to him by the affected party within 30 days from the receipt of such notice, the said decision shall become final and binding on the parties. In the event the Supplier/Vendor being dissatisfied with any such decision or if amicable settlement cannot be reached then all such disputed issues shall be resolved through conciliation in terms of the BHEL Conciliation Scheme 2018 as per Clause 21.1

**10.1 Conciliation:**

Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure as per BHEL Conciliation Scheme 2018. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in - "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com)).

**Note:** Ministry of Finance has issued OM reference No. 1/2/24 dated 03.06.2024 regarding "Guidelines for Arbitration and Mediation in Contracts of Domestic Public Procurement. In the said OM it has been recommended that Government departments/
Entities/agencies are to encourage mediation under the Mediation Act. 2023. The said Act has not yet been notified by the Government. Therefore, the clause "Settlement of Disputes" shall be modified accordingly as and when the Mediation Act 2023 gets notified.

**10.2 ARBITRATION:**

10.2.5 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 14.1 herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or. in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, refer the disputes to **Madras High Court, Arbitration Centre (MHCAC)**and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the Rules of said Arbitral Institution.

10.2.5 A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice') before referring the matter to arbitral institution. The Notice shall be addressed to the Head of the Unit, BHEL, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.

10.2.5 After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to the Arbitral Institution- **Madras High Court, Arbitration Centre (MHCAC)**- and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to **Madras High Court, Arbitration Centre (MHCAC)**- for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.

10.2.5 The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.

10.2.5 The Arbitration proceedings shall be in English language and the seat of Arbitration shall be **Trichy**.

10.2.5 Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at **Trichy**.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

10.2.5 Notwithstanding any reference to the Designated Engineer or Conciliation or Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.

10.2.5 It is agreed that Mechanism of resolution of disputes through arbitration shall be available only in the cases where the value of the dispute is less than Rs. 10 Crores.

10.2.5 In case the disputed amount Claim, Counter claim including interest is Rs. 10 crores and above, the parties shall be within their rights to take recourse to remedies other than Arbitration, as may be available to them under the applicable laws after prior intimation to the other party. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.

10.2.5 In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative value of claims (including interest claimed or awarded) in all such arbitrations shall be taken in account while arriving at the total claim in dispute for the subject contract for the purpose of clause 14.2.9. Disputes having cumulative value of less than 10 crores shall be resolved through arbitration and any additional dispute shall be adjudicated by the court of competent jurisdiction.

**10.2.5 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14-12-2022 as amended from time to time.

**11 Force Majeure**

11.1 "Force Majeure" shall mean circumstance which is:

a. beyond control of either of the parties to contract,
b. either of the parties could not reasonably have provided against the event before entering into the contract,
c. having arisen, either of the parties could not reasonably have avoided or overcome, and
d. is not substantially attributable to either of the parties

And

Prevents the performance of the contract,

Such circumstances include but shall not be limited to:

i. War, hostilities, invasion, act of foreign enemies.
ii. Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war.
iii. Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and sub-contractors.
iv. Strike or lockout not solely involving the contractor's personnel and other employees of the contractor and sub-contractors.
v. Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio- activity.
vi. Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc.
vii. Epidemic, pandemic etc.

11.2 The following events are explicitly excluded from Force Majeure and are solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, go-slow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship.

11.3 If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event.

11.4 The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event.

11.5 Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not

i. Constitute a default or breach of the Contract.
ii. Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.

11.6 BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Supplier/Vendor cannot consider deemed short-closure after 1 year of imposition of Force Majeure.

**12 Cartel Formation**

The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices,

specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

**13 Fraud Prevention Policy**

Bidder along with its associate /collaborators /sub-contractors /sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

**14 Suspension of Business Dealings with Suppliers / Contractors:**

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms / principal / agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.

If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in any act, including but not limited to, mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or tampers the tendering process or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860( Bhartiya Nyaya Samhita 2023) or any other law in force in India, or does anything which is actionable under the Guidelines for Suspension of Business dealings, action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions. Guidelines for suspension of business dealings is available in the webpage: http://www.bhel.com/vender_registration/vender.php.

**15 Order of Precedence:**

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL.
b. NIC Bid
c. Buyer Added Bid Specific ATC
d. NIC Bid Technical Conditions of Contract (TCC)
e. NIC GTC

**16 Enclosure:**

Annexure-1: Check List.
Annexure-2: Offer forwarding letter / tender submission letter
Annexure-3: No Deviation Certificate
Annexure-4: Declaration regarding Insolvency/ Liquidation/ Bankruptcy Proceedings
Annexure-5: Declaration by Authorized Signatory

Place:
Date:

Signature of Authorized Signatory
with seal & full address

Annexure-6: Declaration by Authorized Signatory regarding Authenticity of submitted Documents
Annexure-7: Non-Disclosure Certificate
Annexure-8: Integrity Pact (Not applicable)
Annexure-9: Declaration confirming knowledge about Site Conditions *(Not Applicable)*
Annexure-10: Declaration reg. Related Firms & their areas of Activities
Annexure-11: Declaration for relation in BHEL
Annexure- 12: Declaration reg. minimum local content in line with revised public procurement
Annexure- 13: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017
Annexure-14: Bank Account Details for E-Payment
Annexure-15: Power of Attorney for submission of tender.
Annexure-16: Proforma of Bank Guarantee for Earnest Money.
Annexure-17: Proforma of Bank Guarantee for Performance Security.
Annexure-18: List of Consortium Bank.
Annexure-19: E-Payments
Annexure-20: Format of Letter Confirming the Lien on Fixed Deposit Receipt
Annexure-21: Format for filling General Details

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# Tender Notice

**ANNEXURE- 1**

## CHECK LIST

**NOTE: -** Suppliers are required to fill in the following details in their Letterhead and no column should be left blank

| | | |
|---|---|---|
| **A** | **Name and Address of the Supplier** | |
| **B** | **GSTN No. the Supplier (Place of Execution of Contract / Purchase Order)** | |
| **C** | **Details of Contact person for this Tender** | Name: Mr./ Ms.<br>Designation:<br>Telephone No:<br>Mobile No:<br>Email ID: |
| **D** | **EMD DETAILS** | |

| **E** | **DESCRIPTION** | **APPLICABILITY (BY BHEL)** | **ENCLOSED BY BIDDER** |
|---|---|---|---|
| i. | Whether **Pre - Qualification Criteria** is understood and provided proper supporting documents. | Applicable/ ~~Not Applicable~~ | YES / NO |
| ii. | Whether all pages of the Tender documents including annexures, appendices etc are read and understood | Applicable/ ~~Not Applicable~~ | YES / NO |
| iii. | Audited Balance Sheet and profit & Loss Account for the last three years | ~~Applicable~~/ Not Applicable | YES / NO |
| iv. | Copy of PAN Card & GST registration | Applicable/ ~~Not Applicable~~ | YES / NO |
| v. | Submission of **MSE certificate (UDYAM certificate)** as specified in Tender | Applicable/ ~~Not Applicable~~ | YES / NO |
| vi. | **Offer forwarding letter** / tender submission letter as per Annexure – 2 | Applicable/ ~~Not Applicable~~ | YES / NO |
| vii. | Submission of **Certificate of No Deviation** as per Annexure – 3 | Applicable/ ~~Not Applicable~~ | YES / NO |
| viii. | Declaration regarding **Insolvency/ Liquidation/ Bankruptcy Proceedings** as per Annexure – 4 | Applicable/ ~~Not Applicable~~ | YES / NO |

Place:
Date:

Signature of Authorized Signatory
with seal & full address

| | | | |
|---|---|---|---|
| ix. | Declaration by **Authorized Signatory** as per Annexure – 5 | Applicable/ ~~Not Applicable~~ | YES / NO |
| x. | Declaration by **Authorized Signatory regarding Authenticity** of submitted Documents Annexure – 6 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xi. | Submission of **Non-Disclosure Certificate** as per Annexure – 7 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xii. | Submission of **Integrity Pact** as specified in Tender as per Annexure – 8 | ~~Applicable~~/ Not Applicable | YES / NO |
| xiii. | Declaration **confirming knowledge about Site Conditions** as per Annexure – 9 | ~~Applicable~~/ Not Applicable | YES / NO |
| xiv. | Declaration reg. **Related Firms & their areas of Activities** as per Annexure – 10 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xv. | Declaration for **relation in BHEL** as per Annexure – 11 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xvi. | Declaration reg. **minimum local content** in line with revised public procurement as per Annexure – 12 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xvii. | Declaration regarding c**ompliance to Restrictions under Rule 144 (xi) of GFR 2017** as per Annexure – 13 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xviii. | **Bank Account Details** for E-Payment as per Annexure – 14 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xix. | **Power of Attorney** for submission of tender as per Annexure – 15 | Applicable/ ~~Not Applicable~~ | YES / NO |
| xx. | **Proforma of Bank Guarantee for Earnest Money** as per Annexure – 16 | ~~Applicable~~/ Not Applicable | YES / NO |
| xxi | Submission of **General Details** as per Annexure-21 | Applicable/ ~~Not Applicable~~ | YES / NO |

**NOTE**: Strike off 'YES' or 'NO', as applicable. Tender not accompanied by the prescribed **above applicable documents** are liable to be summarily rejected.

DATE:

**Sign. of the AUTHORISED SIGNATORY**
**(With Name, Designation and Company seal)**

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE - 2**

**OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

---

Offer Reference No: …….  Date: ……

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Submission of Offer against NIC Bid No: ……

Having examined the tender documents against your NIC Bid No. _____ dated _____ and having understood the provisions of the said tender documents and having thoroughly studied the requirements of BHEL related to the work tendered for, in connection with _____ (name of work & project site), we hereby submit our offer for the proposed work in accordance with terms and conditions mentioned in the tender documents, at the prices quoted by us and as per the indicated delivery schedule.

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Performance Security' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL.

I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

**Authorised Representative of Bidder**
Signature:
Name:
Address:

Place:

Place:
Date:

Signature of Authorized Signatory
with seal & full address

Date:

**ANNEXURE- 3**

**CERTIFICATE OF NO DEVIATION**

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

---

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

*Subject:* ***No Deviation Certificate***

Ref: 1) NIC Bid No: ……,
2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred NIC Bid.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

Date:
Place:

**Sign. of the AUTHORISED SIGNATORY**
**(With Name, Designation and Company seal)**

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE- 4**

**UNDERTAKING**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

---

***To,***

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

**Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS**

**Ref**: NIC Bid Specification No:

I/We,

_____

declare that, I/We am/are not admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy Code, 2016, as amended from time to time or under any other law as on date, by NCLT or any adjudicating authority/authorities.

Place:
Date:

**Sign. of the AUTHORISED SIGNATORY**
**(With Name, Designation and Company seal)**

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 5**

**DECLARATION BY AUTHORISED SIGNATORY OF BIDDER**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

---

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration by Authorised Signatory**

Ref: 1) NIC Bid Specification No: ……

2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Date:

Enclosed: Power of Attorney

Place:
Date:

Signature of Authorized Signatory with seal & full address

**ANNEXURE – 6**

**DECLARATION BY AUTHORISED SIGNATORY OF BIDDER**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

---

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration by Authorised Signatory regarding Authenticity of submitted documents.**

Ref: 1) NIC Bid No. & Date: …….

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded contract) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

**(Signature, Date & Seal of Authorized Signatory of the Bidder)**

**Date**:

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE- 7**

**NON-DISCLOSURE CERTIFICATE**

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

---

I/We understand that BHEL Thirumayam is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s ……. who are submitting offer for providing services to BHEL Thirumayam against NIC Bid No…… hereby undertake to comply with the following in line with Information Security Policy of < BHEL Thirumayam

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL Thirumayam

**(Signature, date & seal of Authorized Signatory of the bidder)**

**Date**:

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 8 (Not applicable)**

**INTEGRITY PACT**

**Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

**and**

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

**Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for _____
_____
_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), 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**

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information

Place:
Date:

Signature of Authorized Signatory
with seal & full address

through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, 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(s)/ Contractor(s)**

2.2 The Bidder(s)/ Contractor(s) commit himself 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.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or 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, immaterial or any other 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.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) 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.

2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

**Section 3 - Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

**Section 4 - Compensation for Damages**

4.1 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 the damages equivalent Earnest Money Deposit/ Bid Security.

4.1 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.

**Section 5 - Previous Transgression**

5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2 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/ Contractors / Sub-contractors**

6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his subcontractors.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

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 -Independent External Monitor(s)**

8.1 The Principal appoints competent and credible Independent External 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.

8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.

8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.

8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract 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.

8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.

8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as

possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.

8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission,
in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.

8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.

8.9 IEM should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.

8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.12 The word `Monitor' would include both singular and plural.

**Section 9 - Pact Duration**

9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.

9.2 If any claim is made/ lodged during currency of IP, 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 the CMD, BHEL.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**Section 10 - Other Provisions**

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 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.

10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

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For & On behalf of the Principal

(Office Seal)

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place---------- Date----------

Witness:———————————

(Name & Address) ———————

———————————

Witness:———————————

(Name & Address) ———————

———————————

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 9 (Not applicable)**

**DECLARATION CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration confirming knowledge about Site conditions
Ref: 1) NIC Bid Specification No: ……
2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that we have visited the Project Site as referred in BHEL Tender Specifications and acquired full knowledge and information about the Site conditions including Wage structure, Industrial Climate, the Law & Order and other conditions prevalent at and around the Site. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of Site conditions.

I/We, hereby offer to carry out work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

Place:
Date:

**(Signature, Date & Seal of Authorized Representative of the Bidder)**

Place:
Date:

Signature of Authorized Signatory with seal & full address

**ANNEXURE – 10**

**DECLARATION**

Date:_____

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/ Madam,

Sub: **Details of related firms and their area of activities**

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, *if not applicable*)

| | | |
|---|---|---|
| 1 | Material Category/ Work Description | |
| | Name of Firm | |
| | Address of Firm | |
| | Nature of Business | |
| | Name of Family Member | |
| | Relationship | |
| 2 | Material Category/ Work Description | |
| | Name of Firm | |
| | Address of Firm | |
| | Nature of Business | |
| | Name of Family Member | |
| | Relationship | |
| … | | |

***Note:* I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.**

Regards,

(_____)

From: M/s _____

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# Tender Notice

Supplier Code: _____

Address: _____

_____

_____

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 11**

**DECLARATION FOR RELATION IN BHEL**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

**Sub: Declaration for relation in BHEL**

**Ref:** 1) NIC Bid Specification No: ……

I/We hereby submit the following information pertaining to relation/relatives of Proprietor/Partner(s)/ Director(s) employed in BHEL

**Tick (√) any one as applicable**:

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

   **i.**
   **ii.**

**(Signature, Date & Seal of Authorized Signatory of the Bidder)**

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/Contractor.

Place:
Date:

Signature of Authorized Signatory with seal & full address

**ANNEXURE – 12**

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE, 2020 AND SUBSEQUENT ORDER(S)**

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

---

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

**Sub**: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

**Ref:** 1) NIC Bid Specification No: ……
2) All other pertinent issues till date

We hereby certify that the items/works/services offered by…… (specify the name of the organization here) has a local content of _____ % and this meets the local content requirement for **'Class-I local supplier' / 'Class II local supplier' **** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

1. _____ 2. _____

3. _____ 4. _____

…

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of Authorized Signatory of the Bidder)**

****** - Strike out whichever is not applicable.

Place:
Date:

Signature of Authorized Signatory with seal & full address

**Note:**

1. Bidders to note that above format, duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 13**

**DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017**

(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

**Sub**: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

**Ref:** 1) NIC Bid Specification No: ……
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that _____ (**SPECIFY THE NAME OF THE ORGANIZATION HERE**), is not from such a country/ has been registered with the Competent Authority (*attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT*).

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of**
**Authorized Signatory of the Bidder)**

**Note:** Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 14**

**BANK ACCOUNT DETAILS FOR E-PAYMENT**

(To be given on Letter head of the Company /Firm of Bidder, and **ENDORSED (SIGNED & STAMPED) BY THE BANK** to enable BHEL release payments through Electronic Fund Transfer (EFT/RTGS)

---

1. Beneficiary Name:

2. Beneficiary Account No.:

3. Bank Name & Branch:

4. City/Place:

5. 9-digit M ICR Code of Bank Branch:

6. IFSC Code of Bank Branch:

7. Beneficiary E-mail ID:
   (for payment confirmation)

**NOTE:** In case Bank endorsed certificate regarding above has already been submitted earlier, kindly submit photocopy of the same

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 15**

**POWER OF ATTORNEY for SUBMISSION OF TENDER**

(To be typed on non-judicial stamp paper of minimum Rs. 100/- and Notarized)

---

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr. …….. , whose signature given below herewith to be true and lawful Attorney of M/s…… hereinafter called 'Company', for submitting Tender/entering into Contract and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Central Procurement Cell (CPC), in connection with……vide NIC Bid No: _____, dated _____.

And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect.

IN WITNESS WHEREOF, the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr. …… (Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 16 (Not Applicable)**

**PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY**

(On non-Judicial paper of appropriate value)

---

**Bank Guarantee No…….**
**Date…….**

**To**
(Employer's Name and Address)
……..

Dear Sirs,
In accordance with the terms and conditions of Invitation for Bids/Notice Inviting Tender No……[1](Tender Conditions), M/s. ……. having its registered office at ……[2] (hereinafter referred to as the 'Tenderer'), is submitting its bid for the work of**……..**[3] invited by ……[4]. (name of the Employer) through its Unit at ……(

The Tender Conditions provide that the Tenderer shall pay a sum of Rs ……. as Earnest Money Deposit in the form therein mentioned. The form of payment of Earnest Money Deposit includes Bank Guarantee executed by a Scheduled Bank.

In lieu of the stipulations contained in the aforesaid Tender Conditions that an irrevocable and unconditional Bank Guarantee against Earnest Money Deposit for an amount of .....[5] ..... is required to be submitted by the Tenderer as a condition precedent for participation in the said Tender and the Tenderer having approached us for giving the said Guarantee,

we, the .....[Name & address of the Bank] ..... having our Registered Office at ……. (hereinafter referred to as the Bank) being the Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer without any demur, merely on your first demand any sum or sums of Rs. ..... [5] (in words Rupees.....) without any reservation, protest, and recourse and without the beneficiary needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ _____.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/Vendors in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment hereunder and the Tenderer shall have no claim against us for making such payment.

We …….. Bank further agree that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Tender or to extend the time of submission of from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Tenderer and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Tenderer or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Tenderer or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Tenderer and notwithstanding any security or other guarantee that the Employer may have in relation to the Tenderer's liabilities.

This Guarantee shall be irrevocable and shall remain in force upto and including……[6] and shall be extended from time to time for such period as may be desired by the Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Tenderer but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the ……[7] we shall be discharged from all liabilities under this Guarantee.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at …… shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, …… Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
Notwithstanding anything to the contrary contained hereinabove:

a. The liability of the Bank under this Guarantee shall not exceed……[5]….

Place:
Date:

Signature of Authorized Signatory
with seal & full address

b. This Guarantee shall be valid up to ……[6]
c. Unless the Bank is served a written claim or demand on or before _____[7] all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Date…….
Place of Issue…….

1 *Details of the Invitation to Bid/Notice Inviting Tender*
2 *Name and Address of the Tenderer*
3 *Details of the Work*
4 *Name of the Employer*
5 *BG Amount in words and Figures*
6 *Validity Date*
7 *Date of Expiry of Claim Period*

**Notes:**

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.

2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Contractor/sub-contractor /vendor/ Bank issuing the guarantee.

3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

4. **In Case of Bank Guarantees submitted by Foreign Vendors-**

**a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e., Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

***b.*** **From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor Country's Bank)**

**b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter-Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

**b.2 In case, Foreign Vendors intend to provide BG from** Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

**b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 17**

**BANK GUARANTEE FOR PERFORMANCE SECURITY**

(On non-Judicial paper of appropriate value)

---

Bank Guarantee No:
Date:

To
NAME
& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at_____[1] through its Unit at…….(name of the Unit) having awarded to ( Name of the Vendor / Contractor / Supplier) with its registered office at_____[2] hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No……dated ……[3] valued at Rs……[4] (Rupees ----------) / FC……(in words……..) for ……[5] (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to ……% (….
Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

We, ……, (hereinafter referred to as the Bank), having registered/Head office at ……. and inter alia a branch at …… being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs ---------- [6] (Rupees ----------) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or

Place:
Date:

Signature of Authorized Signatory
with seal & full address

Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

We the ……bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/ satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We ……..BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor /Contractor / Supplier 's liabilities.

This Guarantee shall remain in force upto and including…… [7] and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the ……..[8] we shall be discharged from all liabilities under this guarantee thereafter.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

Courts at …… shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, …… BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
Notwithstanding anything to the contrary contained hereinabove:

a. The liability of the Bank under this Guarantee shall not exceed…… [6]
b. This Guarantee shall be valid up to ……[7]
c. Unless the Bank is served a written claim or demand on or before _____[8] all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of (Name of the Bank) Dated…….
Place of Issue…….

1. *NAME AND ADDRESS OF EMPLOYER i.e., Bharat Heavy Electricals Limited*
2. *NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.*
3. *DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE*
4. *CONTRACT VALUE*
5. *PROJECT/SUPPLY DETAILS*
6. *BG AMOUNT IN FIGURES AND WORDS*
7. *VALIDITY DATE*
8. *DATE OF EXPIRY OF CLAIM PERIOD*

**Note:**

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.

2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier /Bank issuing the guarantee.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.

4**. In Case of Bank Guarantees submitted by Foreign Vendors-**

**a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e.
Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

***b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor Country's Bank)***

**b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

**b.2 In case, Foreign Vendors intend to provide BG from** Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

**b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 18**

**LIST OF CONSORTIUM BANK**

| Sl. No. | NAME OF THE BANK |
|---|---|
| 1 | State Bank of India |
| 2 | Canara Bank |
| 3 | IDBI Bank Limited |
| 4 | ICICI Bank Limited |
| 5 | HDFC Bank Limited |
| 6 | Axis Bank |
| 7 | IndusInd Bank Limited |
| 8 | Bank of Baroda |
| 9 | Exim Bank |
| 10 | Indian Bank |
| 11 | Punjab National Bank |
| 12 | Union Bank of India |
| 13 | Yes Bank Limited |
| 14 | RBL Bank Ltd. |
| 15 | Indian Overseas Bank |
| 16 | Kotak Mahindra Bank Limited |
| 17 | Federal Bank Limited |
| 18 | HSBC |
| 19 | South Indian Bank |
| 20 | Bank of India |

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**ANNEXURE – 19**
**E-PAYMENTS**

- This annexure to the techno-commercial bid explains how to make e-payments to BHEL-Tiruchirappalli through SBI e-collect.
- Vendors (SD Payments payable by others) can utilize this facility.
- Payments can be made using Internet Banking, Debit Cards/Credit Cards etc.
- SBI Charges a minimum amount (Service Charge) for every transaction. This may vary according to the MODE selected.

STEP BY STEP PROCEDURE:
Login to https://www.onlinesbi.com

1. Select State Bank Collect available on the top (pre login page)
2. Accept the terms and conditions and click "PROCEED"
3. Select State "TAMILNADU "and Institution type "INDUSTRY ".
4. Select "BHEL TRICHY under "INDUSTRY".
5. In the next page, Select APPROPRIATE category, fill details correctly & click "SUBMIT".
6. If all details entered are correctly populated, click "CONFIRM "to proceed.
7. Make payment as per your convenience. (Options available are payment of fees through SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches).
8. SAVE & Keep the copy of receipt for future reference.

HOW TO TAKE RECEIPT FOR A PAYMENT MADE, EVEN ON A LATER DATE:
(PLEASE CHECK THE STATUS BEFORE MAKING PAYMENT SECOND TIME)

1. Login to www.onlinesbi.com
2. Select State Bank Collect available on the top (pre login page)
3. Accept the terms and conditions and click "PROCEED"
4. Select "PAYMENT HISTORY "option available on the left side of screen.
5. Using two options as mentioned below, you can get the receipt:
    a. Type the same Date of Birth, Mobile Number which you have entered at the time of making payment through SB collect. Select the date range and submit.
    b. It you know the payment reference number, then enter the Reference number (DU…) along with anyone information (Date of Birth / Mobile number, which you have entered at the time of making payment). Select the date range and submit.
6. In the next page, take print out of receipt.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

ANNEXURE-20

**Format of Letter Confirming the Lien on Fixed Deposit Receipt**
**(On the Letter Head of Bank)**

Reference No……. Date:

To

M/s Bharat Heavy Electricals Limited,
Finance Department, 2ND floor admin
building,
THIRUMAYAM-620014.

Dear Sir /Madam,

We refer to the fixed deposit receipt (FDR) bearing no. _____ dated _____ for Rs. _____ issued in the name of Bharath Heavy Electricals Ltd. (BHEL) Trichy-14. Account of ____ (Name of the vendor)

We hereby agree and confirm that,

1. There is no lock in period for encashment of the said FDR.

2. The amount under the said FDR would be paid to you on demand, at any point of time before, or upon maturity, without any reference to the _____ (name of the vendor).

3. Encashment whether premature or otherwise would not require any clearance from any other authority / person.

4. We agree that on encashment of FDR, the interest accrued will also be released to you.

5. We agree that the FDR will be auto renewed for such period/s initially mentioned in the FDR and the intimation of such renewal shall be sent to BHEL, Trichy-14 and …….(the name of the vendor) immediately after the renewal.

6. FDR will not be closed, encashed, changed or Discharged without the written permission / confirmation from M/s. BHEL, Trichy.

7. We acknowledge and agree that the Lien created on the FDR shall be in force until BHEL, Trichy gives us a Discharge Letter in this regard.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

Yours faithfully,

Authorised Signatory
(Bank Stamp/Seal)

This letter to be typed on Bank's letter head,
Bank email id:
Mobile no:
Landline no:
Address for communication:

Place:
Date:

Signature of Authorized Signatory
with seal & full address

## Annexure-21

## GENERAL DETAILS:

***(To be filled by Bidder)***

***Tender Ref: PPPU: WC: 26: 007***

| | | |
|---|---|---|
| *01* | *Name and full address of the Company / Firm* | |
| *02* | *Name of contact Person with Designation* | |
| *03* | *Contact Details:* | |
| | *Landline No.* | |
| | *Mobile No.* | |
| | *email ID:* | |
| *04* | *Local Office Address with Contact person, Phone No., Mobile No., email ID, Fax No. (If any)* | |
| *05* | *Vendor code allotted by BHEL **if any*** | |
| *06* | *List of BHEL units in which vendor has executed any type of contract previously or is currently executing any type of contract* | |
| *07* | *Is the vendor under Ban Or Hold by any units of BHEL?* | |
| *08* | *Applicable GST percentage for this tender* | |

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# General Conditions of Contract (GCC)

## BHARAT HEAVY ELECTRICALS LIMITED
## (A Govt. of India Undertaking)
## Power Plant Piping Unit, Thirumayam – 622 507, Tamil Nadu

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2.18. Limitation on Liability
2.19. Other Issues

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**CHAPTER -1**

## 1. GENERAL INSTRUCTION TO TENDERERS

### 1.1. DESPATCH INSTRUCTION

i. The General Conditions of Contract form part of the Tender specifications. **For this tender, bidders shall use electronic Signature viz Digital Signature Certificate while uploading the tender documents on the e-procurement portal.** The information furnished shall be complete by itself. The tenderer is required to furnish all the details and other documents as required in the following pages.

ii. Tenderers are advised to study all the tender documents carefully. Any submission of tender by the tenderer shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. Should the tenderers have any doubt about the meaning of any portion of the Tender Specification or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, the scope of work etc., he shall at once, contact the authority inviting the tender well in time (so as not to affect last date of submission) for clarification before the submission of the tender. Tenderer's request for clarifications shall be with reference to Sections and Clause numbers given in the tender documents. The specifications and terms and conditions shall be deemed to have been accepted by the tenderer in his offer. Non-compliance with any of the requirements and instructions of the tender enquiry may result in the rejection of the tender.

iii. Integrity pact (IP) shall be applicable for all tenders / contracts if indicated in NIT. This IP shall be issued as part of the Tender documents and shall be submitted by the bidder along with Techno-commercial bid duly filled, signed and stamped by the authorized signatory who signs the bid. Entering into this pact shall be a preliminary qualification.

### 1.2. SUBMISSION OF TENDERS

1.2.1. The tenderers must submit their tenders to Officer inviting tender as per instructions in the NIT.

1.2.2. Tenders shall be submitted through E-Procurement portal as per instruction in NIT. Tenderers to upload offers well in advance in order to avoid last minute congestion in e-procurement website. However, after submission of the tender, the tenderer can re-submit revised tender but before due date and time of submission of tender as notified.

1.2.3. Tenders shall be opened by Officer of BHEL at the time and date as specified in the NIT. For this tender, bidders may attend through online mode, if provisions are available in e-procurement portal.

1.2.4. Tenderers whose bids are found techno commercially qualified shall be notified through e-procurement system about the date and time of opening of the Price Bids. BHEL's decision in this regard shall be final and binding.

1.2.5. Before submission of Offer, the tenderers are advised to inspect the site of work and the

environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour, means of transport and access to Site, accommodation etc. No claim will be entertained later on the grounds of lack of knowledge of any of these conditions.

The tenderer may get aware about weather conditions, contingencies & other circumstances which may influence or affect their tender prices. Invariable of inspection by the tenderer, the tenderer shall be considered deemed acquainted with all site conditions such as rain patterns, hazardous conditions, soil patterns, local factors etc. Tenderer to have satisfied himself in all respect before quoting his rates and no claim will be entertained later on the grounds of lack of knowledge of any of these conditions.

**1.3. QUALIFICATION OF TENDERERS**

i. Only tenderers who have previous experience in the work of the nature and description detailed in the Notice Inviting Tender and/or tender specification are expected to quote for this work duly detailing their experience along with offer.

ii. Offers from tenderers who do not have proven and established experience in the field shall not be considered.

iii. The offers of the bidders who are on the debarred list shall be rejected. Further, offer of the bidders, who engage the services of the debarred firms or associated with the debarred firm, for present bid, shall also be rejected. The list of **debarred firms** is available on BHEL web site www.bhel.com. (Refer clause 28.0 of NIT).

iv. Tenderers who have been suspended, debarred or black listed by BHEL, Tiruchirappalli - 620014 or any other unit of BHEL/ any other PSU or GOI/ any State Govt. will not be allowed to participate in the tender, and bidder should declare in the tender that they are not suspended, debarred or blacklisted by any of the agencies stated above. Even during the course of evaluation/ finalization of tender if it is found that a bidder is so suspended, debarred or black listed, BHEL shall not consider them for further participation in the tender.

v. Offers from tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt. of India shall not be considered.

**1.4. EVALUATION OF BIDS**

i. Technical Bids submitted by the tenderer will be opened first and evaluated for fulfilling the Pre- Qualification criteria and other conditions in NIT/Tender documents, based on documentary evidences submitted along with the offer.

ii. In case the same qualifying experience is claimed by more than one agency, then:

a. The agency who has executed the work as per documentary evidence submitted shall only be qualified. Scope of qualifying work should be totally with the agency who has executed and in case it is only labour and consumables without T&P, then the credentials of execution is assigned to the first agency and not to the agency who has executed only as labour supply contractor. Further, BHEL reserves the right to ask for any other proof for the said job.

b. However, if the same is on account of subletting, part of scope by one agency to another agency in a project of BHEL, experience of both the agencies may be considered for the sublet portion of the work provided subletting has been done with the approval of BHEL.

iii. In case the qualifying experience is claimed by bidder is based on 'Work Order' and 'Experience Certificates' from any organization other than BHEL (main agency), then it shall be the responsibility of the bidder to submit (in addition to the experience certificate from main agency) relevant certificate regarding qualifying experience from the end Customer or the Turnkey-Contractor (if any) who has awarded the work to main agency, as a proof for having executed subject qualifying work. BHEL reserves the right to ask for any other proof for the said job.

iv. Assessing Bidder's Capacity for executing the current tender shall be as per Notice Inviting Tender.

v. Rates should be quoted as per the Work / Rate schedule (Price bid/Part –II). Rates quoted in any other form will not be accepted, and will be rejected.

vi. Price Bids of shortlisted bidders shall only be opened through the electronic price bid opening with/without Reverse Auction, at the discretion of BHEL. Unless specified otherwise in the tender, the L1 bidder amongst all the shortlisted bidders shall be considered for award. However, the L1 bidder shall have no claim on the award & BHEL reserves the right to award the tender at its sole discretion.

vii. Price Bids of unqualified bidders shall not be opened. Reasons for rejection shall be intimated in due course either through system generated e-mail or through letter/e-mail after award to successful bidder.

viii. Bidders are advised to also refer to clause no 2.9.4 regarding evaluation of their performance in ongoing projects.

**1.5. DATA TO BE ENCLOSED**

*Full information shall be given by the tenderer in respect of the following. Non-submission of this information may lead to rejection of the offer.*

**i. INCOME TAX PERMANENT ACCOUNT NUMBER**
Certified copies of Permanent Account Numbers as allotted by Income Tax Department for the Company/Firm/Individual Partners etc. shall be furnished along with tender.

ii. An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor.

iii. **IN CASE OF INDIVIDUAL TENDERER**:
His / her full name, address, PAN and place & nature of business.

iv. **IN CASE OF PARTNERSHIP FIRM**:
The names of all the partners and their addresses, copy of the **partnership deed/instrument of partnership dully certified by the Notary Public shall be enclosed.**

v. **IN CASE OF COMPANIES**:

a) Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished).
b) Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.

**1.6. AUTHORIZATION AND ATTESTATION**

Tenders shall be signed by a person duly authorized/empowered to do so, for which a Power of Attorney is to be submitted along with the tender offer. For company, a Power of Attorney (as per format in Volume-I D) shall be submitted.

**1.7. EARNEST MONEY DEPOSIT(Not applicable)**

1.7.1. Every tender must be accompanied by the prescribed amount of Earnest Money Deposit (EMD) in the manner described herein.

i. EMD shall be furnished before tender opening / along with the offer in full as per the amount indicated in the NIT.
ii. The EMD up to an amount of Rs. 2 Lakh is to be paid only in the following forms:
   a) Cash deposit as permissible under the extant Income Tax Act (before tender opening).
   b) Electronic Fund Transfer credited in BHEL account (before tender opening).
   c) Banker's cheque / Pay order / Demand draft, in favour of 'Bharat Heavy Electricals Limited' and payable at Regional HQ issuing the tender (along with offer).
   d) Fixed Deposit Receipt (FDR) issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL) duly marking lien in favour for BHEL (along with offer). The Fixed Deposit in such cases shall be valid for at least six months from the due date of tender submission.
   e) Insurance Surety Bonds
   f) In case EMD amount is more than Rs. Two Lakhs, Tenderer has the option to submit the amount in excess of Rs. Two lakhs in the forms described above in clause no. 1.9.1. ii) (a) to (e) or in the form of Bank Guarantee from Scheduled Bank (along with the Offer). The Bank Guarantee in such cases shall be valid for at least six months from the due date of tender submission. The Bank Guarantee format for EMD shall be in the prescribed formats.
iii. No other form of EMD remittance shall be acceptable to BHEL.
iv. Proof of EMD: Bidder shall upload the scanned copy of EMD along with bid submission through BHEL e-procurement Portal. However, for the purpose of realization, the bidder shall send the demand draft/ banker's cheque/ pay order/ Bank Guarantee/ FDR/ Insurance Surety Bonds, in original, to the designated officer through post/courier or by hand within reasonable time.

1.7.2. EMD by the Tenderer will be forfeited as per NIT conditions, if:

i. After opening the tender and within the offer validity period, the tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.OR
ii. The successful Contractor, on whom the work has been awarded, fails to deposit the required Security deposit or commence the work within the period as per LOI/ LOA/ Contract or refuse to accept the LIO/LOA/Contract.
iii. EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ contractors" of BHEL and forfeited/ released based on the action as determined under these guidelines.

1.7.3. EMD shall not carry any interest.
1.7.4. EMD given by all unsuccessful tenderers shall be refunded normally within fifteen days of award of work.
1.7.5. Cash portion of EMD of successful tenderer will be retained as part of Security Deposit. EMD submitted in the form of Bank Guarantee/ FDR shall be retained by BHEL until the receipt of the Security Deposit.
1.7.6. Micro and Small Enterprises (MSEs) or Start-ups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT) shall be exempted from payment of EMD

**1.8. SECURITY DEPOSIT**

1.8.1. Upon acceptance of Tender, the successful bidder shall be required to deposit the 5% of the contract value as Security Deposit towards fulfilment of any obligations in terms of the provisions of the contract.
1.8.2. The Security Deposit shall be furnished before start of the work by the contractor.
1.8.3. The required Security Deposit may be accepted in the following forms.
i. Cash (as permissible under the extant Income Tax Act).
ii. Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.
iii. Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).
iv. **Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in** the Companies Act. The Bank Guarantee format for Security Deposit shall be in the prescribed formats.
v. Insurance Surety Bonds.

**Note:**

i. BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

ii. In case of delay in submission of Security Deposit, enhanced security deposit which would include interest (Repo rate + 4%) for the delayed period, shall be submitted by the bidder before submission of first bill

1.8.4. The Security Deposit shall not carry any interest.

1.8.5. In case the value of work exceeds the awarded / accepted value, the Security Deposit shall be correspondingly enhanced as given below:

i. The enhanced part of the Security Deposit shall be immediately deposited by the Contractor or adjusted against payments due to the Contractor.

ii. Contract value for the purpose of operating the increased value of Security Deposit due to Quantity Variation, shall be exclusive of Price Variation Clause, Over Run Compensation and Extra works done on man-day rates.

iii. The recoveries made from running bills can be released against submission of equivalent Bank Guarantee in acceptable form, but only once, before completion of work, with the approval of competent authority of BHEL.

1.8.6. The validity of Bank Guarantees towards Security Deposit shall be initially up to the completion period as stipulated in the Letter of Intent/ Award + Guarantee Period + 3 months, and the same shall be kept valid by proper renewal by the contractor till the acceptance of Final Bills of the Contractor by BHEL

1.8.7. BHEL reserves the right of forfeiture of Security Deposit in addition to other claims, damages and remedies in the event of the Contractor's failure to fulfil any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit against any claims of other contracts with BHEL by giving prior notice to the contractor.

1.8.8 There is no exemption of Performance security deposit submission for MSE / Start-Ups Vendors.

**1.9. RETURN OF SECURITY DEPOSIT**

Security Deposit shall be released to the contractor upon fulfillment of contractual obligations as per terms of the contract including completion of Guarantee Period after deducting all expenses / other amounts due to BHEL under the contract.

**1.10. BANK GUARANTEES**

Where ever Bank Guarantees are to be furnished/submitted by the contractor, the following shall be complied with

i. Bank Guarantees shall be from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. Bank Guarantees issued by Co-Operative Banks/ Financial Institutions shall not be accepted.

ii. The Bank Guarantees shall be as per prescribed formats.

iii. It is the responsibility of the bidder to get the Bank Guarantees revalidated/extended for the required period as per the advice of BHEL Site Engineer

/ Construction Manager. BHEL shall not be liable for issue of any reminders regarding expiry of the Bank Guarantees.

iv. In case extension/further extensions of any Bank Guarantees are not required, the bidders shall ensure that the same is explicitly endorsed by the Construction Manager and submitted to the Regional HQ issuing the LOI/LOA.

V In case the Bank Guarantees are not extended before the expiry date, BHEL reserves the right to invoke the same by informing the concerned Bank in writing, without any advance notice/communication to the concerned bidder.

Vi Bidders to note that any corrections to Bank Guarantees shall be done by the issuing Bank, only through an amendment in an appropriate non judicial stamp paper.

Vii The Original Bank Guarantee shall be submitted to contracting Department

**1.11. VALIDITY OF OFFER**

The rates in the Tender shall be kept open for acceptance for a minimum period of **SIX MONTHS** from latest due date of offer submission (including extension, if any). In case BHEL (Bharat Heavy Electricals Ltd) calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

**1.12. REJECTION OF TENDER AND OTHER CONDITIONS**

1.12.1. The acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender nor any tender and reserves to itself full rights for the following without assigning any reasons whatsoever: -

a) To reject any or all of the tenders.
b) To split up the work amongst two or more tenderers as per NIT.
c) To award the work in part if specified in NIT.
d) In case of either of the contingencies stated in (b) and (c) above, the time for completion as stipulated in the tender shall be applicable.

1.12.2. Conditional tenders, unsolicited tenders, tenders which are incomplete or not in the form specified or defective or have been materially altered or not in accordance with the tender conditions, specifications etc. are liable to be rejected.

1.12.3. Tenders are liable to be rejected in case of unsatisfactory performance of the tenderer with BHEL or tenderer under suspension (debarred) by any unit / region / division of BHEL or tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India. BHEL reserves the right to not consider a bidder for further processing of tender in case it is observed that they are overloaded and may not be in a position to execute this job as per the required schedule **in line with clause no. 9.0 of the 'NIT'**. The decision of BHEL will be final in this regard.

1.12.4. If a tenderer who is a proprietor expires after the submission of his tender or after the acceptance of his tender, BHEL may at their discretion, cancel such tender. If a partner of a firm expires after the submission of tender or after the acceptance of the tender, BHEL may

then cancel such tender at their discretion, unless the firm retains its character. In case BHEL resolves to cancel the tender under this clause, BHEL will issue a notice in this regard containing reasons as to the cancellation of tender. The contractor shall be required to furnish his response to such notice within a period of 14 days from the date of receipt of such notice through any means (BHEL reserves the right to decrease the period upto 05 days). BHEL after due consideration of the representation made by contractor shall communicate its final decision within a reasonable period.

In case contractor fails to submit any response to the notice issued by BHEL within the period stipulated in the notice, BHEL at its discretion may proceed to cancel the contract.

Contractor shall not be eligible for any compensation whatsoever for the cancellation of contract under this clause

1.12.5. BHEL will not be bound by any Power of Attorney granted by changes in the composition of the firm made subsequent to the execution of the contract. BHEL may, however, recognize such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.

1.12.6. If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract if awarded and forfeit the Earnest Money/Security Deposit/any other money due.

1.12.7. Canvassing in any form in connection with the tenders submitted by the Tenderer shall make his offer liable to rejection.

1.12.8. In case the Proprietor, Partner or Director of the Company/Firm submitting the Tender, has any relative or relation employed in BHEL, the authority inviting the Tender shall be informed of the fact as per specified format, along with the Offer. Failing to do so, BHEL may, at its sole discretion, reject the tender or cancel the contract and forfeit the Earnest Money/Security Deposit.

1.12.9. The successful tenderer (Contractor) shall not sub-contract any portion of work detailed in the tender specification undertaken by him without written permission of BHEL's Construction Manager/Site in charge. BHEL, at its discretion, may consider the written request from the Contractor and permit subletting of part scope. However, the Contractor is solely responsible to BHEL for the work awarded to him.

1.12.10. The Tender submitted by a techno commercially qualified tenderer shall become the property of BHEL who shall be under no obligation to return the same to the bidder.

1.12.11. Unsolicited discount received after the due date and time of Bid Submission shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-1 party, then the awarded price i.e. contract value shall be worked out after considering the discount so offered.

1.12.12. BHEL shall not be liable for any expenses incurred by the bidder in the preparation of the tender irrespective of whether the tender is accepted or not.

**1.13. INTIMATION OF CHANGE OF NAME/ RE-CONSTITUTION OF THE ORGANIZATION**

In the event of the organization (Proprietorship/Partnership/Company) undergoing any change of name or reconstitution, prior intimation of the same shall be given to BHEL. Upon such changes coming into effect, the same is to be intimated to BHEL immediately with supporting documents as applicable.

Further, the new entity has to give undertaking in writing that they will honor all the earlier commitments in respect of the subject contract.

**CHAPTER -2**

2.1. **DEFINITION:** The following terms shall have the meaning hereby assigned to them except where the context otherwise requires

i. BHEL shall mean Bharat Heavy Electricals Limited, a company registered under Indian Companies Act 1956, having its Registered Office at BHEL HOUSE, SIRI FORT, NEW DELHI – 110 049, and its CPC (Central Procurement Cell) -PSHQ (inviting tenders) or its Power Sector Regional Offices or its Authorized Officers or its Site Engineers or other employees authorized to deal with any matters with which these persons are concerned on its behalf.

ii. "EXECUTIVE DIRECTOR" or "GENERAL MANAGER (In- charge)" or "GENERAL MANAGER" shall mean the Officer in Administrative charge of the respective UNIT/Power Sector Region.

iii. "COMPETENT AUTHORITY" shall mean BHEL Officers who are empowered to act on behalf of BHEL.

iv. "ENGINEER" or "ENGINEER IN CHARGE" shall mean an Officer of BHEL as may be duly appointed and authorized by BHEL to act as "Engineer" on his behalf for the purpose of the Contract, to perform the duty set forth in this General Conditions of Contract and other Contract documents. The term also includes 'CONSTRUCTION MANAGER' or 'SITE INCHARGE' as well as Officers at Site or at the Headquarters of the respective Power Sector Regions.

v. "SITE" shall mean the places or place at which the plants/equipments are to be erected and services are to be performed as per the specification of this Tender.

vi. "CLIENT OF BHEL" or "CUSTOMER" shall mean the project authorities with whom BHEL has entered into a contract for supply of equipments or provision of services.

vii. "CONTRACTOR" shall mean the successful Bidder/Tenderer who is awarded the Contract and shall include the Contractor's successors, heirs, executors, administrators and permitted assigns.

viii. "CONTRACT" or "CONTRACT DOCUMENT" shall mean and includes the Agreement or Work Order, the accepted appendices of Rates, Schedules, Quantities if any, Offer submitted by contractor including acceptance to General Conditions of Contract, Special Conditions of Contract, Instructions to the Tenderers, Drawings, Technical Specifications, the Special Specifications if any, the Tender documents, subsequent amendments /corrigendum to Tender mutually agreed upon and the Letter of Intent/Award/Acceptance issued by BHEL. Any conditions or terms stipulated by the contractor in the tender documents or subsequent

letters shall not form part of the contract unless, specifically accepted in writing by BHEL in the Letter of Intent/Award and incorporated in the agreement or amendment thereof.

ix. "GENERAL CONDITIONS OF CONTRACT" shall mean the 'Instructions to Tenderers' and 'General Conditions of Contract' pertaining to the work for which above tenders have been called for.

x. "TENDER SPECIFICATION" or "TENDER" or "TENDER DOCUMENTS" shall mean General Conditions, Common Conditions, Special Conditions, Price Bid, Rate Schedule, Technical Specifications, Appendices, Annexures, Corrigendums, Amendments, Forms, Procedures, Site information etc. and drawings/documents pertaining to the work for which the tenderers are required to submit their offers. Individual specification number will be assigned to each Tender Specification.

xi. "LETTER OF INTENT/ AWARD" shall mean the intimation by a Letter/Fax/email to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all terms and conditions of the contract are applicable from this date.

xii. "COMPLETION TIME" shall mean the period by 'date/month' specified in the 'Letter of Intent/Award' or date mutually agreed upon for handing over of the intended scope of work, the erected equipment/plant which are found acceptable by the Engineer, being of required standard and conforming to the specifications of the Contract.

xiii. "PLANT" shall mean and connote the entire assembly of the plant and equipments covered by the contract.

xiv. "EQUIPMENT" shall mean equipment, machineries, materials, structural, electricals and other components of the plant covered by the contract.

xv. "TESTS" shall mean and include such test or tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL in order to ascertain the quality, workmanship, performance and efficiency of the contractor or part thereof.

xvi. "APPROVED", "DIRECTED" or "INSTRUCTED" shall mean approved, directed or instructed by BHEL.

xvii. "WORK or CONTRACT WORK" shall mean and include supply of all categories of labour, specified consumables, tools and tackles and Plants required for complete and satisfactory site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipments to the entire satisfaction of BHEL.

xviii. "SINGULAR AND PLURALS ETC" words carrying singular number shall also include plural and vice versa, where the context so requires. Words imparting the masculine Gender shall be taken to include the feminine Gender and words imparting persons shall include any Company or Associations or Body of Individuals, whether incorporated or not.

xix. "HEADING" – The heading in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken as instructions thereof or of the contract.

xx. "MONTH" shall mean calendar month unless otherwise specified in the Tender.

xxi. 'Day' or 'Days' unless herein otherwise expressly defined shall mean calendar day or days of twenty-four (24) hours each. A Week shall mean continuous period of seven (7) days.

xxii. "COMMISSIONING" shall mean the synchronization testing and achieving functional operation of the Equipment with associated system after all initial adjustments, trials, cleaning, re-assembly required at site if any, have been completed and Equipment with associated system is ready for taking into service.

xxiii. "WRITING" shall include any manuscript type written or hand written or printed statement or electronically transmitted messages, under the signature or seal or transmittal of BHEL.

xxiv. "TEMPORARY WORK" shall mean all temporary works for every kind required in or for the execution, completion, maintenance of the work.

xxv. 'CONTRACT PRICE' or 'CONTRACT VALUE' shall mean the sum mentioned in the LOI/LOA/Contract Agreement subject to such additions thereto or deductions there from as may be made under provisions hereinafter contained.

xxvi. 'EXECUTED CONTRACT VALUE' shall mean actual value of works executed by the contractor and certified by BHEL. This value shall not include PVC, ORC, Extra Works and Taxes.

xxvii. "COMMENCEMENT DATE" or "START DATE" shall mean the commencement/start of work at Site as per terms defined in the Tender.

xxviii. "SHORT CLOSING" or "FORE CLOSING" of Contract shall mean the premature closing of Contract, for reasons not attributable to the contractor and mutually agreed between BHEL and the contractor.

xxix. "TERMINATION" of Contract shall mean the pre mature closing of contract due to reasons as mentioned in the contract.

xxx. "DE MOBILIZATION" shall mean the temporary winding up of Site establishment by Contractor leading to suspension of works temporarily for reasons not attributable to the contractor.

xxxi. "RE MOBILIZATION" shall mean the resumption of work with all resources required for the work after demobilization.

2.2. **LAW GOVERNING THE CONTRACT AND COURT JURISDICTION**

The contract shall be governed by the Laws of India. Subject to clause 2.21.1.1 of this contract, the Civil Court having original Civil Jurisdiction at Tiruchirappalli, shall alone have exclusive jurisdiction in regard to all matters in respect of the Contract.

2.3. **ISSUE OF NOTICE**

2.3.1. **Service of notice to the Contractor**

Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same by **Email/ Registered Post/Speed Post to or leaving the same at** the Contractor's last

known address of the principal place of business (or in the event of the contractor being a company, to or at its Registered Office). In case of change of address, the notice shall be served at changed address as notified in writing by the Contractor to BHEL. Such dispatch or display posting or leaving of the notice as the case may be shall be deemed to be good service of such notice and the time mentioned to the condition for doing any act after notice shall be reckoned from the date so mentioned in such notice.

2.3.2. **Service of notice to on BHEL**

Any notice to be given to BHEL In-charge of the Region under the terms of the Contract shall be served by sending the same by Registered/AD or Speed post to BHEL address or changed address as notified in writing by BHEL to the Contractor.

2.4. **USE OF LAND**

No land belonging to BHEL or their Customer under temporary possession of BHEL shall be occupied by the contractor without written permission of BHEL.

2.5. **COMMENCEMENT OF WORK**

2.5.1. The contractor shall commence the work as per the time indicated in the Letter of Intent/Award from BHEL and shall proceed with the same with due expedition without delay.

2.5.2. If the contractor fails to start the work within stipulated time as per LOI/ LOA or as intimated by BHEL, then BHEL at its sole discretion shall have the right to cancel the contract. The Earnest Money and/or Security Deposit furnished by the contractor to under this tender will stand forfeited without any further reference to him and without prejudice to BHEL's other rights and remedies under this contract and the applicable laws in this regard.

2.5.3. All the work shall be carried out under the direction and to the satisfaction of BHEL.

2.6. **MEASUREMENT OF WORK AND MODE OF PAYMENT:**

2.6.1. All payments due to the contractors shall be made by e mode only, unless otherwise found operationally difficult for reasons to be recorded in writing

2.6.2. For progress running bill payments: - The Contractor shall present detailed measurement sheets in triplicate, duly indicating all relevant details based on technical documents and connected drawings for work done during the month/period under various categories in line with terms of payment as per contract. The basis of arriving at the quantities, weights shall be relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with BHEL Engineers and signed by both the parties.

2.6.3. These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement Book and signed by both the parties.

2.6.4. Based on the above quantities, contractor shall prepare the bills, along with statutory documents, in prescribed format and work out the financial value. These will be entered in Measurement Book

and signed by both the parties. Payment shall be made by BHEL after effecting the recoveries due from the contractor.

2.6.5. All recoveries due from the contractor for the month/period shall be effected in full from the corresponding running bills unless specific approval from the competent authorities is obtained to the contrary.

2.6.6. Measurement shall be restricted to that portion of work for which it is required to ascertain the financial liability of BHEL under this contract.

2.6.7. The measurement shall be taken jointly by persons authorized on the part of BHEL and by the Contractor.

2.6.8. The Contractor shall bear the expenditure involved if any, in making the measurements and testing of materials to be used/ used in the work. The contractor shall, without extra charges, provide all the assistance with appliances and other things necessary for measurement.

2.6.9. If at any time due to any reason whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re measurements shall be borne by the contractor unless such re measurements are warranted solely for reasons not attributable to contractor.

2.6.10. Passing of bills covered by such measurements does not amount to acceptance of the completion of the work measured. Any left out work has to be completed, if pointed out at a later date by BHEL.

Final measurement bill shall be prepared in the final bill format prescribed for the purpose based on the certificate issued by BHEL Engineer that entire works as stipulated in tender specification has been completed in all respects to the entire satisfaction of BHEL. The Contractor shall submit the final bill in line with WAM 7 format as per tender documents with an additional recording of the dispute, if any and shall sign with the following declaration:

I/ We hereby certify that I/We have performed the work as per the terms and conditions of Contract Agreement/Work Order No……. dated……for which payment is claimed as above and that I/We have no further claim under this agreement/work order* except for the following (nature of claim with details & amount claimed, if any. NIL may be mentioned if there are no further claims). –

a) …….

b) ……

c) …….

It is agreed that the authorized signatory of Contractor shall necessarily record his claims/ dispute in Form WAM 7 only and any claim(s)/ dispute in any other form/ letter shall not be taken cognizance of by BHEL and admissible before any forum. BHEL shall make the payment of undisputed amount within the stipulated time without any unreasonable delay.

All the tools and tackles loaned to him should be returned in satisfactory condition to BHEL. The abstract of final quantities and financial values shall also be entered in the Measurement Books

and signed by both parties to the contract. The Final Bill shall be prepared and paid within a reasonable time after completion of work.

2.7. **RIGHTS OF BHEL**

BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any compensation.

2.7.1. To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to fulfil BHEL's commitment to its customer or the date of completion is advance due to other emergent reasons/ BHEL's obligation to its customer.

In case of inadequate manpower deployed by the, BHEL reserves the right to deploy manpower to meet such shortfall, through any other agency for expediting activities in the interest of the project. Supplied manpower shall be put on job by the contractor and payments and other statutory compliances related to such manpower shall be the contractor's responsibility. In case of contractor's failure to fulfill his obligations in respect of such manpower, BHEL reserves the right to take necessary action as per contract conditions.

**2.7.2 BREACH OF CONTRACT, REMEDIES AND TERMINATION**

BHEL shall notify the contractor by way of 14 days' notice to rectify/improve the breaches mentioned herein within the time prescribed in the said notice. If the contractor fails to rectify/improve the breaches with the stipulated time period, then terms of the contract shall be considered to have been breached. In that Case BHEL shall have the right to terminate the contract in any of the following breaches:

i) Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available period considering its performance of execution.
ii) Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
iii) Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
iv) Repeated failure of contractor in deploying the required resources, to comply the statutory requirements etc. even after given by BHEL in writing.
v) Strike or Lockout declared is not settled within a period of one month.
vi) Termination of Contract on account of any other reason (s) attributable to Contractor.
vii) Assignment, transfer, subletting of Contract without BHEL's written permission.
viii) Non-compliance to any contractual condition or any other default attributable to Contractor.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

**LD against delay in executed work in case of Termination of Contract:**

LD against delay in executed work shall be calculated in line with LD clause no. 2.7.9 of GCC, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of "LD against delay in executed work in case of termination of contract" is given below.

i. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
ii. Let the value of executed work till the time of termination of contract= X
iii. Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
iv. Delay in executed work attributable to contractor i.e. T2=[1-(X/Y)] x T1
v. LD shall be calculated in line with LD clause (clause 2.7.9) of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

**2.7.2.1 Remedies in case of Breach of Contract**.

i. Wherein the period as stipulated in the notice issued under clause 14.1 has expired and Contractor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.
ii. Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Contractor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, from the money due to the Contractor etc. with BHEL) or the other legal remedies shall be pursued.
iii. wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:
iv. In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Contractor.
v. If Contractor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:

a. from dues available in the form of Bills payable to defaulted Contractor against the same contract.
b. If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Contractor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.
c. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted Contractor.

vi. It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Contractor for the purpose of estimation of damages.

vii. In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

**Note:**

1) The defaulting contractor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:
   (a) In case defaulted contractor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.
   (b) In case defaulted contractor is The Partnership Firm, any firm comprising of same partners/ some of the same partners (but not including any new partner); or sole proprietorship firm owned by any partner(s) as a sole proprietor.

2.7.3. In case Contractor fails to deploy the resources as per requirement informed by BHEL in writing to expedite the work, BHEL can deploy own/hired/otherwise arranged resources and recover the expenses incurred from the dues payable to contractor. Recoveries shall be actual expenses incurred plus 5% overheads or as defined in TCC.

2.7.4. To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customer are terminated for any reason, whatsoever.

2.7.5. Whenever any Claim or Claims for payment of any sum of money(s) arises under this or any other contract against the contractor, BHEL shall be entitled to withhold and also have a lien to retain such sum of money(s) in whole or in part from any money(s) payable to contractor and/or security deposits furnished or deducted in cash from the bills of contractor, (if any) under this contract. In the event of the securities or the amounts payable to Contractor, being insufficient to cover BHEL claims, then BHEL shall be entitled to withhold and have a lien to the extent of such claims from any sum or sums found payable or which at any time thereafter may become payable to the contractor under this or any other contract with BHEL.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

a) Claim or Claims for payment of any sum of money(s) arising from the Contractor under this or any other contract against the contractor, shall mean, the sum of money(s) actually incurred by BHEL in fulfilling the contractual responsibilities of contractor under the contract, to which he has failed to fulfil plus applicable overheads (@ 5%) along with interest as applicable under the Contract on total amount (i.e. money actually incurred plus overheads)

b) It is an agreed term of the contract that, the sum or sums of money so withheld or retained under the lien by BHEL will be kept withheld or retained as such by BHEL till the claims arising out of this or any other contract are finally adjudicated wither through Arbitration or a Court of competent jurisdiction as the case may be in accordance with the terms of contract. Intimation given by the BHEL Engineer regarding withholding of such money(s) shall be considered as sufficient and relevant date for all purposes. No Interest shall be payable on such sum(s) of money which becomes due or as the case may be adjudged to be due from BHEL to Contractor, whether under contract or otherwise.

c) Where the contractor is a partnership firm, BHEL shall be entitled to withhold and also have a lien to retain towards such claims in whole or in part, from any other money(s) payable to any partner, whether in his individual capacity or otherwise.

d) If any money(s) shall, as a result of any claim or application made under the relevant provisions of any Labour Welfare Act and/ or Rules, including but not limited to Contract Labour Regulation & Abolition Act, Minimum Wages Act, Payment of Gratuity Act, BOCW (RE&CS) Act, Provident Fund Act, Employee State Insurance Act, be directed to be paid by the BHEL, such money shall be deemed to be moneys payable to the BHEL by the Contractor.

e) Where the Contractor fails to repay to BHEL such moneys along with applicable overheads (@ 5%) and interest, as aforesaid within seven days of being demanded, BHEL shall be entitled to recover the same from Contractor's bills/ Security Deposit or any other money(s) payable to Contractor under this Contract or any other Contract with BHEL.

2.7.6. While every endeavor will be made by BHEL to this end, yet BHEL cannot guarantee uninterrupted work due to conditions beyond its control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.

2.7.7. BHEL may permit or direct contractor to demobilize and remobilize at a future date as intimated by BHEL in case of following situations for reasons other than Force majeure conditions and not attributable to contractor:

i. suspension of work(s) at a Project either by BHEL or Customer,
or

ii. where work comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than three months

In such cases, charges towards demobilization and remobilization shall be as decided by BHEL after successful remobilization by contractor at site, and decision of BHEL shall be final and binding on the contractor. After remobilization, all conditions as per contract shall become applicable. In case Contractor does not remobilize with adequate resources or does not start the work within the period as intimated, then BHEL reserves the right to terminate the contract and effect remedies under Clause 2.7.2.2. In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.

2.7.8. In the unforeseen event of inordinate delay in receipt of materials, drawings, fronts etc. due to which inordinate discontinuity of work is anticipated, BHEL on its own or contractor's request at its discretion may consider to short close the contract in any of the following cases:

a) The balance works (including but not limited to Trial Operation, PG Test etc.) are minor vis a vis the scope of work envisaged as per the contract.

b) There has been no significant work in past 6 months OR no significant work is expected in next 6 months (example in Hydro projects or in projects where work has stopped due to reasons beyond the control of BHEL).

c) The balance works cannot be done within a reasonable period of time as they are dependent on unit shut down or on other facilities of customer or any other such reasons not attributable to the contractor.

At the point of requesting for short closure, contractor shall establish that he has completed all works possible of completion and he is not able to proceed with the balance works due to constraints beyond his control. In such a case, the estimated value of the unexecuted portion of work (or estimated value of services to be provided for carrying out milestone/stage payments like Trial Operation/PG Test etc.) as decided by BHEL, shall however be reduced from the final contract value.

**Note:** The Contractor shall not be eligible for any compensation on account of Quantity Variation arising out of short-closure of contract as per clause no. 2.7.8 (b) above.

2.7.9. **LIQUIDATED DAMAGES**

Liquidated Damages, wherever referred under this Tender/Agreement, shall mean and refer to the damages, not in the nature of penalty, which the contractor agrees to pay in the event of delay in delivery of stores, installation, commissioning, breach of contract etc. as the case may be.

Liquidated Damages leviable upon the contractor is a sum which is agreed by the parties as a reasonable and genuine pre-estimate of damages which will be suffered by BHEL on account of delay/breach on the part of the contractor.

Liquidated Damages shall be calculated in the manner stipulated hereinafter:

In case the work is not completed within the stipulated time period, BHEL at its discretion may grant provisional time extension to contractor for the sole purpose of completion of balance works keeping its right reserved under the contract and law.

Grant of any provisional time extension shall by no means be considered as waiver of BHEL rights under the contract or law.

After the completion of work, duly certified by Engineer Incharge, a comprehensive delay analysis shall be carried out to ascertain the attribution of delays in the provisional time extensions granted to contractor. The delay analysis shall record:

a) Delays solely attributable to contractor
b) Delays attributable to BHEL
c) Delays on account of Force Majeure (as specified elsewhere in the contract)

The total period under the final time extension shall be equal to the period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/ levied for the portion of time

extensions solely attributable to contractor and recoverable from the dues payable to the contractor.

For the periods, wherein the delay as per the comprehensive delay analysis carried out is solely attributable to contractor, BHEL shall have the right to impose Liquidated Damage at the rate of 0.5% of the contract value, per week of delay or part thereof subject to a maximum of 10% of the contract value.

Contract Value for this purpose, shall be the final executed value exclusive of ORC, Extra Works executed on Man-day rate basis, Supplementary/ Additional Items and PVC. Before levying LD, the contractor shall be duly intimated the amount and reasons thereof for imposition of LD.

2.7.10 If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out, the HOD/Contracts Dept. or his authorized representative, shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

## 2.8. RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.

2.8.1 The following are the responsibilities of the contractor in respect of observance of local laws, employment of personnel, payment of taxes etc. The subcontractor shall fully indemnify BHEL against any claims of whatsoever nature arising due to the failure of the contractor in discharging any of his responsibilities hereunder:

2.8.2. As far as possible, Unskilled Workers shall be engaged from the local areas in which the work is being executed.

2.8.3. The contractor at all times during the continuance of this contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.

2.8.4. The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Regulations, Notifications etc. such as Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Disputes Act, Employers Provident Fund and Miscellaneous Provisions Act, 1952, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act, 1970, Payment of Bonus & Gratuity Act, Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996, The Building and Other Construction Workers' Welfare Cess Act 1996 and other Acts, Rules, and Regulations for labour/workers as applicable and as may be enacted by the State Government and Central Govt. during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also comply with provisions of and give all such notices to the local Governing Body, Police and other relevant Authorities as may be required by the Law.

2.8.5. The Contractor shall obtain independent License under the Contract Labour (Regulations and Abolition) Act, 1970 for engaging contract labour as required from the concerned Authorities based on the certificate (Form- V or as applicable) issued by the Principal Employer/Customer.

2.8.6. The contractor shall pay and bear all taxes, fees, license charges, Cess, duties, deposits, tolls, royalties, commission or other charges which may be leviable on account of his operations in executing the contract.

2.8.7. While BHEL would pay the inspection fees and Registration fees of Boiler/Electrical Inspectorate, all other arrangements for site visits periodically by the Inspectorate to site, Inspection certificate etc. will have to be made by contractor. However, BHEL will not make any payment to the Inspectorate in connection with contractor's Welders/Electricians qualification tests etc.

2.8.8. Contractor shall be responsible for provision of Health and Sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.

2.8.9. The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.

2.8.10. The contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.

2.8.11. The contractor shall ensure that no damage is caused to any person/property of other parties working at site/company" premises. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.

2.8.12. All the properties/equipments/components of BHEL/their Client loaned with or without deposit to the contractor in connection with the contract shall remain properties of BHEL/their Client

2.8.13. The contractor shall use such properties for the purpose of execution of this contract. All such properties/equipments/components shall be deemed to be in good condition when received by

the contractor unless he notifies within 48 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL/their Client. In case of non-return, loss, damage, repairs etc. the cost thereof as may be fixed by BHEL Engineer will be recovered from the contractor.

2.8.14. In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract.

2.8.15. Any delay in completion of works/or non-achievement of periodical targets/or non-execution of contract due to the reasons attributable to the contractor, the same may have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and/or by working more than one shift. All these are to be carried out by the contractor at no extra cost.

2.8.16. The contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.

2.8.17. All safety rules and codes applied by the Customer /BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards. Due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of Clerical staff, watch and ward, store keepers to take care of equipment/materials and construction tools and tackles shall be posted at site by the contractor till the completion of work under this contract.

The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per prescribed standards and practices.

Contractor has to ensure the implementation of Health, Safety and Environment (HSE) requirements as per directions given by BHEL/Customer. The contractor has to assist in HSE audit by BHEL/Customer and submit compliance Report. The contractor has to generate and submit record/reports as per HSE plan/activities as per instruction of BHEL/Customer.

2.8.18. The contractor shall be directly responsible for payment of wages to his workmen/labours before the expiry of seven days from the last day of wage period and to ensure disbursement of wages in the presence of the representative from BHEL A pay roll sheet giving all the payments given to the workers and duly signed by the contractor's representative should be furnished to BHEL site for the purpose of maintaining the records for compliance,

Contractor shall create awareness amongst their workforce by helping & encouraging in opening bank accounts and to encourage them to adopt digital mode of transactions. While releasing wages/ salary to their workers/ supervisors/ staff, Contractor shall comply with the GOI's guidelines for maximizing such transactions through Non-Cash / digital means.

2.8.19. In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

2.8.20. Also, no idle charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour and Tools & Plants being rendered idle due to any reason at any time.

2.8.21. The contractor shall take all reasonable care to protect the materials and work till such time the plant/equipment has been taken over by BHEL or their Customer whichever is earlier.

2.8.22. The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly.

2.8.23. The contractor shall keep the area of work clean and shall remove the debris etc. while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor.

2.8.24. The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.

2.8.25. The Contractor to note that some of BHEL's T&Ps/MMDs may not be insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is caused due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL shall lto recover the loss from the contractor.

2.8.26. For all works having contract value of Rs. 5,00,000/- or above, BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life/ permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below.

a) Victim: Any person who suffers permanent disablement or dies in an accident as defined below.

b) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing/ operation and works incidental thereto at BHEL factories/ offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works/ during working at BHEL Units/ Offices/ townships and premises/ Project Sites.

c) Compensation in respect of each of the victims:
   i. In the event of death or permanent disability resulting from Loss of both limbs: Rs. 10,00,000/- (Rs. Ten Lakh).
   ii. In the event of other permanent disability: Rs.7,00,000/- (Rs. Seven Lakh)

d) Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to section 2 (I) of the Employee's Compensation Act, 1923.

2.8.27. Contractor shall be fully responsible for the safety of their T&Ps and other material mobilized at site. In any case, BHEL shall not be liable for any damage/loss/misuse of any item(s) belong to the contractor.

2.8.28. Contractor will ensure that the work/job is executed through his/her employees on and under no circumstances, the contractor shall subcontract the job without prior written permission from BHEL.

2.8.29. The liability for any compensation on account of injury sustained by an employee of the contractor will be exclusively that of the contractor.

2.9. **EXECUTION PLAN, PROGRESS MONITORING, MONTHLY REVIEW AND PERFORMANCE EVALUATION**

2.9.2. A tentative plan/ programme for completion of the contractual scope of work as per the time schedule given in the contract shall be made jointly by BHEL and Contractor, before commencement of work. The above programme shall be supported by month wise deployment of resources viz Manpower, T&P, Consumables, etc. Progress will be reviewed periodically (Daily/Weekly/Monthly) vis-à-vis this jointly agreed programme.

Subsequently, every month, quarterly rolling plan will be made by BHEL based on budgeted targets.

Monthly plan in F-14 format shall be drawn from this Quarterly plan. Monthly plan shall necessarily include activities required for achieving targets/ milestones unless inputs/ fronts are not available. While planning and arriving on asking rate all available inputs shall be taken into consideration.

Vendor will be required to execute the monthly plan in that month in addition to make full efforts to minimize the cumulative shortfall attributable to him up to the month.

BHEL may require monthly work plan up to one and half times of average monthly value and demand matching manpower.

Where, Average Monthly Value = Total Contract Value (as per latest revision) / Period of Contract (in months)

Provided, this requirement is reflected in the rolling quarterly plan two months in advance.

If the Contractor refuses to sign the F-14 format, those F-14 formats requiring Contractor's signature shall be deemed to have been signed and accepted by the Contractor, if communicated to the Contractor through email or any other mode as stated in clause 2.3.1.

The Contractor shall submit periodical progress reports (Daily/Weekly/Monthly) and other reports/information including manpower, consumables, T&P mobilization etc. as desired by BHEL.

2.9.3. Monthly progress review between BHEL and Contractor shall be based on the agreed programme as above, availability of inputs/fronts etc., and constraints if any, as per prescribed formats (i.e. Form F-14). Manpower, T&P and consumable reports as per prescribed formats shall be submitted by contractor every month. Release of RA Bills shall be contingent upon certification by BHEL Site Engineer of the availability of the above prescribed formats duly filled in and signed.

2.9.4. The burden of proof that the causes leading to any shortfall is not due to any reasons attributable to the contractor is on the contractor himself. The monthly progress review shall record shortfalls attributable to (i) Contractor, (ii) Force Majeure Conditions, and (iii) BHEL

2.9.5. Performance of the Contractor shall be assessed as per prescribed formats and shall form the basis for 'Assessment of Capacity of Bidder' for Tenders where the Contractor is a bidder. BHEL reserves the right to revise the evaluation formats during the course of execution of the works.

2.10. **TIME OF COMPLETION**

2.10.2. The time for completion shall be as mentioned in the LOA/Contract. The time for completion shall be reckoned from the date of commencement of work at Site as certified/notified in writing by BHEL Engineers.

2.10.3. Time being the essence of the contract, the entire work shall be completed by the contractor within the time schedule or within such extended periods of time as may be allowed by BHEL under clause 2.11.

2.11. **EXTENSION OF TIME FOR COMPLETION**

2.11.2. If the completion of work as detailed in the scope of work gets delayed beyond the contract period, the contractor shall request for an extension of the contract and BHEL at its discretion may extend the Contract. If the completion of work gets delayed for reasons not attributable to the contractor, the contract period may be suitably extended at the sole discretion of BHEL.

2.11.3. Based on the F-14 formats, the works balance at the end of original contract period less the backlog attributable to the contractor shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the contractor is bound to complete the portion of backlog attributable to the contractor. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.

2.11.4. However, if any 'Time extension' is granted to the contractor to facilitate continuation of work and completion of contract, due to backlog attributable to the contractor alone, then it shall be without prejudice to the rights of BHEL to impose penalty/LD for the delays attributable to the contractor, in addition to any other actions BHEL may wish to take under Clause 2.7.2 of GCC i.e. Breach of Contract, Remedies and Termination.

2.11.5. Planning, progress monitoring, monthly review and performance monitoring shall be carried out as per clause 2.9 of GCC.

2.12. **INSURANCE**

2.12.2. BHEL/their customer shall arrange for insuring the materials/properties of BHEL/customer covering the risks during transit, storage, erection and commissioning.

2.12.3. It is the sole responsibility of the contractor to insure his materials, equipment, workmen etc. against accidents and injury while at work and to pay compensation, if any, to workmen as per Workmen's compensation Act. The work will be carried out in a protected area and all the rules and regulations of the client /BHEL in the area of project which are in force from time to time will have to be followed by the contractor.

2.12.4. If due to negligence and or non-observation of safety and other precautions by the contractors, any accident/injury occurs to the property / manpower belong to third party, the contractor shall have to pay necessary compensation and other expense, if so decided by the appropriate authorities.

2.12.5. The contractor will take necessary precautions and due care to protect the material, while in his custody from any damage/ loss due to theft or otherwise till the same is taken over by BHEL or customer. For lodging / processing of insurance claim, the contractor will submit necessary documents. BHEL will recover the loss including the deductible franchise from the contractor, in case the damage / loss is due to carelessness / negligence on the part of the contractor. In case of any theft of material under contractor's custody, matter shall be reported to Police by the contractor immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL for taking up with insurance. However, this will not relieve the contractor of his contractual obligation for the material in his custody.

2.13. **STRIKES & LOCKOUT**

2.13.2. The contractor will be fully responsible for all disputes and other issues connected with his labour. In the event of the contractor's labour resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of one month, it may be considered as 'Breach of Contract' under Clause 2.7 and the remedies under Clause 2.7.2.2 may be executed, at the discretion of BHEL.

For all purposes whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL.

2.14. **FORCE MAJEURE**

2.14.2. "Force Majeure" shall mean circumstance which is:

a) beyond control of either of the parties to contract,
b) either of the parties could not reasonably have provided against the event before entering into the contract,
c) having arisen, either of the parties could not reasonably have avoided or overcome, and
d) is not substantially attributable to either of the parties

And

Prevents the performance of the contract,

Such circumstances include but shall not be limited to:

i. War, hostilities, invasion, act of foreign enemies.
ii. Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war.
iii. Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and sub-contractors.
iv. Strike or lockout not solely involving the contractor's personnel and other employees of the contractor and sub-contractors.
v. Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio- activity.
vi. Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc.
vii. Epidemic, pandemic etc.

2.14.3. The following events are explicitly excluded from Force Majeure and are solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, go-slow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship.

2.14.4. If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event.

2.14.5. The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event.

2.14.6. Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not

a) Constitute a default or breach of the Contract.

b) Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.

2.14.7. BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Supplier/Vendor cannot consider deemed short-closure after 1 year of imposition of Force Majeure

2.15. **Settlement of Dispute**

If any dispute or difference of any kind whatsoever shall arise between BHEL and the Supplier/Vendor, arising out of the contract for the performance of the work whether during the progress of contract termination, abandonment or breach of the contract, it shall in the first place referred to Designated Engineer for amicable resolution by the parties. Designated Engineer (to be nominated by BHEL for settlement of disputes arising out of the contract) who within 60 days after being requested shall give written notice of his decision to the contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall forthwith be given effect to by the Supplier/Vendor who shall proceed with the work with all due diligence, whether he or BHEL desires to resolve the dispute as hereinafter provided or not.

If after the Designated Engineer has given written notice of this decision to the party and no intention to pursue the dispute has been communicated to him by the affected party within 30 days from the receipt of such notice, the said decision shall become final and binding on the parties. In the event the Supplier/Vendor being dissatisfied with any such decision or if amicable settlement cannot be reached then all such disputed issues shall be resolved through conciliation in terms of the BHEL Conciliation Scheme 2018 as per Clause 2.15.1

2.15.2. **CONCILIATION**

Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “Dispute”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure as per BHEL Conciliation Scheme 2018. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in - “Procedure for conduct of conciliation proceedings” (as available in www.bhel.com)).

2.15.3. **ARBITRATION:**

2.15.2.1. Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 14.1 herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or. in any manner touching upon the Contract (hereinafter referred to as the ‘Dispute’), then, either Party may,

refer the disputes to **Madras High Court, Arbitration Centre (MHCAC)**and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the Rules of said Arbitral Institution.

2.15.2.2. A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice') before referring the matter to arbitral institution. The Notice shall be addressed to the Head of the Unit, BHEL, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.

2.15.2.3. After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to the Arbitral Institution- **Madras High Court, Arbitration Centre (MHCAC)**- and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to **Madras High Court, Arbitration Centre (MHCAC)**- for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.

2.15.2.4. The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.

2.15.2.5. The Arbitration proceedings shall be in English language and the seat of Arbitration shall be Trichy.

2.15.2.6. Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at **Trichy**.

2.15.2.7. Notwithstanding any reference to the Designated Engineer or Conciliation or Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.

2.15.2.8. It is agreed that Mechanism of resolution of disputes through arbitration shall be available only in the cases where the value of the dispute is less than Rs. 10 Crores.

2.15.2.9. In case the disputed amount Claim, Counter claim including interest is Rs. 10 crores and above, the parties shall be within their rights to take recourse to remedies other than Arbitration, as may be available to them under the applicable laws after prior intimation to the other party. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any

statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.

2.15.2.10. In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative value of claims (including interest claimed or awarded) in all such arbitrations shall be taken in account while arriving at the total claim in dispute for the subject contract for the purpose of clause 14.2.9. Disputes having cumulative value of less than 10 crores shall be resolved through arbitration and any additional dispute shall be adjudicated by the court of competent jurisdiction.

**2.15.2.11. In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14-12-2022 as amended from time to time.

2.15.4. **NO INTEREST PAYABLE TO CONTRACTOR**

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL. etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

2.15.5. **Final Bill**

Final Bill' is used for final payment on closing of Running Account for works or for single payment after completion of works. 'Final Bill' shall be submitted as per prescribed format after completion of works as per scope and upon material reconciliation, along with the following:

i) 'No Claim Certificate' by Contractor
ii) Clearance certificates where ever applicable viz. Clearance Certificates from Customer, various Statutory Authorities like Labour department, PF Authorities, Commercial Tax Department etc.
iii) Indemnity Bond as per prescribed format.
iv) BHEL shall settle the final bills after deducting all liabilities of Contractor to BHEL.

2.16. **CLOSING OF CONTRACTS**

The Contract shall be considered completed and closed upon completion of contractual obligations and settlement of Final Bill or completion of Guarantee period whichever is later. Upon closing of

Contract, BHEL shall issue a performance/ experience certificate as per standard format, based on specific request of Contractor as per extant BHEL guidelines through the online portal available at https://suvidha.bhel.in only.

2.17. **SUSPENSION OF BUSINESS DEALINGS**

BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms / principal / agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.

If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in any act, including but not limited to, mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or tampers the tendering process or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, or does anything which is actionable under the Guidelines for Suspension of Business dealings, action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

Guidelines for suspension of business dealings is available in the webpage:
http://www.bhel.com/vender_registration/vender.php

2.18. **LIMITATION ON LIABILITY:**

Notwithstanding anything to the contrary in this Contract or LOA or Work Order or any other mutually agreed document between the parties, the maximum liability, for damages, of the contractor, its servants or agents, shall under no circumstances exceed an amount equal to the Price of the Contract or the Work Order. The Contractor shall not in any case be liable for loss of profit or special, punitive, exemplary, indirect or consequential losses whatsoever. This shall not be applicable on the recoveries made by Customer from BHEL on account of Contractor, any other type of recoveries for workmanship, material, T&P etc. due from the contractor.

2.19. **OTHER ISSUES**

2.19.2. Value of Non judicial Stamp Paper for Bank Guarantees and for Contract Agreement shall be not less than Rs. 100/- unless otherwise required under relevant statutes.

2.19.3. In case of any conflict between the General Conditions of Contract and Special Conditions of Contract, provisions contained in the Special Conditions of Contract shall prevail.

2.19.4. Unless otherwise specified in NIT, offers from consortium/ JVs shall not be considered.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

## NON COMPLIANCE OF SAFETY RULES

NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR/SUB-CONTRACTOR AS UNDER FOR EVERY INSTANCE OF VIOLATION NOTICED.

| SN | Violation of Safety Norms | Fine (in Rs) |
|---|---|---|
| 01 | Not Wearing Safety Helmet | 200/- * |
| 02. | Not wearing Safety Belt or not anchoring life line | 500/-* |
| 03 | Not wearing safety shoe | 200/-* |
| 04 | Not keeping gas cylinders vertically | 200/- |
| 05 | Not using flash back arrestors | 100/- |
| 06 | Not wearing gloves | 50/- * |
| 07. | Grinding Without Goggles | 50/- * |
| 08. | Not using 24 V Supply For Internal Work | 500/- |
| 09. | Electrical Plugs Not used for hand Machine | 100/- |
| 10. | Not Slinging properly | 200/- |
| 11. | Using Damaged Sling | 200/- |
| 12. | Lifting Cylinders Without Cage | 500/- |
| 13. | Not Using Proper Welding Cable With Lot of Joints And Not Insulated Property. | 200/- |
| 14. | Not Removing Small Scrap From Platforms | 500/- |
| 15. | Gas Cutting Without Taking Proper Precaution or Not Using Sheet Below Gas Cutting | 500/- |
| 16. | Not Maintaining Electric Winches Which are Operated Dangerously | 500/- |
| 17. | Improper Earthing Of Electrical T&P | 500/- |
| 18 | No or improper barricading | 500/- |
| 19. | Activity carried out without Safety work permit (Height work, Lifting activity, Hot work-each person/case) | 1000/- |

Legend:-

*: per head. For repeated violation by the same person, the penalty would be double of the previous penalty. Date of “Repeated violation” will be counted from subsequent days.

#: For repeated fatal incident in the same Unit incremental penalty to be imposed. The contractor/sub-contractor will pay 2 times the penalty compared to previously paid in case there are repeated cases of fatal incidents under the same contractor/sub-contractor for the same package in the same unit.

Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the subcontractor.

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# Annexure – I

## GENERAL CONDITIONS OF CONTRACT FOR LUMPSUM, ITEM RATES AND PERCENTAGE CONTRACT

Place:
Date:

Signature of Authorized Signatory
with seal & full address

# GENERAL CONDITIONS OF CONTRACT FOR LUMPSUM, ITEM RATES AND PERCENTAGE CONTRACT

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## CHAPTER- I

### 1. DEFINITIONS

In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them except where the context otherwise requires: -

a) The "CONTRACT" means the documents forming the tender and acceptance thereof, together with all documents referred to therein including General and Special Conditions of Contract, and/ or General Summary attached to form the tender, the Bharat Heavy Electricals Limited, Schedule of Rates as amended and in force the Specifications and the Drawings. All these documents as applicable taken together shall be deemed to form one Contract and shall be complementary to one another.

b) The "TENDER DOCUMENTS" means the form of Tender the applicable Schedules and/ or General Summary, General and Special Conditions of Contract and the Specification and/ or Drawings as given to Contractors.

c) The "WORK" means the work described in the tender documents in individual work orders and/or accompanying Drawings and Specifications as may be issued from time to time to the Contractor by the Engineer–in– charge within the powers conferred upon them, including all modified or additional works and obligations to be carried out either at the site or at any Factory Workshop or other place as required for the performance of the Contract.

d) The "SITE" means the lands and/or other places on, in into or through which the work is to be executed under the Contract or any adjacent land, path or street which may be allotted to or used for the purpose of carrying out the contract.

e) The "CONTRACTOR" means the individual, firm or Company, whether incorporated or not undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company, or the successors of the firm or Company and the permitted assigns of such individual or firm or Company.

f) The "Engineer–in–charge" means the Engineer who is in charge for the works referred.

## CHAPTER- II
## SCOPE OF CONTRACT

### 2. Heading to the Contract:

The heading to these conditions shall not affect the interpretation thereof.

### 3. Contract Documents

The Contractor shall keep one copy of all the Drawings and the Specifications at the site and the Engineer-in-charge or his representative shall have access to them at all reasonable times.

None of these documents shall be used by the contractor for any purpose other than that of this contract.

The Contractor shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noticed that the Indian Official Secrets Act 1923 (XIX of 1923) applies to them and shall continue so to apply even after the execution of such works under the contract.

### 4. Works to be Carried Out

The Contract shall, except as provided under BHEL free issue material, include all labor, material, tools, plants equipment and transport which may be required in preparation for, and in the entire execution and full completion of the work. The tender shall be deemed to have been prepared in accordance with good practice and recognized principles and unless otherwise stated, the descriptions given therein shall be held to include waste on material carriage and cartage, lead, return of empties, hoisting, setting, fitting in position and all other labor necessary in and for the entire execution and full completion aforesaid. Any error in description or quantity or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the work comprised therein according to the Drawings and Specifications, or from any of his obligations under the Contract. The insertion of the name of any firm of suppliers in the Tender Documents is for the purpose of obtaining a particular class or quality of material or workmanship but the articles or material specified may be obtained from any other firm subject to prior written approval of the Engineer – in – charge.

In the case of any discrepancy the Accepting Officer shall be the sole deciding authority as to which shall prevail and his decision shall be final and conclusive. If neither Drawings nor Specifications contain any mention of minor details of construction, which in the opinion of the Accepting Officer whose decision shall be final and conclusive, are reasonable and obviously and fairly intended for the satisfactory completion of the work, such details shall be provided by the Contractor without any extra cost as if they were specially mentioned and shall be deemed to be included in the contract.

The contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution and completion of the work. No extra charges consequent on any misunderstanding in these respects or otherwise will be allowed.

## 5. Provisional Items

The full amount of provisional lump sums and the value annexed to each provisional item inserted in the tender documents shall be deducted from the contract sum and the value of work ordered and executed thereunder shall be ascertained by measurement or valuation as for deviations.

No work under these items is to be begun without instructions in writing from the Engineer-in-charge.

The extent of quantities or items described as "Provisional" shall not be held to guarantee or limit the amount and description of the work to be executed by the contractor either in respect of the items concerned or the work as a whole.

No addition or deduction shall be made by the Contractor to the amount of the provisional lump sums as included in the tender documents.

## 6. Deviations

The contractor shall not make any alteration in addition to or omission from the work as described in the tender documents except in pursuance of the written instructions of the Engineer-in-charge. No such deviation from the work described in the tender documents shall be valid unless the same has been specifically confirmed and accepted by the Accepting Officer in writing and incorporated in the contract.

The Accepting Officer may deviate either by way of addition or deduction, from the work so described, provided that the contract sum be not thereby varied on the whole by more than the percentage set out in the tender documents. The value of all addition and deductions will be added to, or deducted from the contract sum. Whenever the Accepting Officer intends to exercise such a right, his intention shall specify the deviations which are to be made, the lump sum assessment or the proposed basis of payment, the extra time allowed, if any, and the date for completion of the entire contract.

Any objection by the Contractor to any matter concerning the order shall be notified by him in writing to the Engineer-in-charge within **Seven days** from the date of such order, but under no circumstances shall the work be stopped (unless so ordered by the Engineer-in-charge) owing to differences or controversy that may arise from such an objection. In the absence of such a notification of objection by the contractor, he will be deemed to have accepted the order and the conditions stated therein. In the event of the contractor failing to agree with the Engineer-in charge regarding the terms of the proposed deviation, the objection shall be referred to the Project Manager whose decision shall be final conclusive and binding on the Contractor.

## 7. Time

Time is the essence of the contract and is specified in the tender document or in each individual Work Order.

As soon as possible after the contract is let or any substantial Work Order is placed and before work under is to begin, the Engineer-in-charge and the Contractor shall agree to a Time and Progress Chart. The Chart shall be prepared in direct relation to the time stated in the Tender

Documents or the Work Order for the completion of the individual items thereof and/ the contract or order as a whole. It shall indicate the forecast of the dates for the commencement of the various trade processes or sequences of the work, and shall be amended as may be required by agreement between the Engineer-in-charge and the Contractor within the limitation of the time imposed in the Tender Documents or Order

In the absence of any specific Time and Progress chart to be agreed to between the Contractor and the Engineer–in–charge, the contractor shall ensure and maintain uninterrupted progress of the work such that the entire work shall be completed within the time imposed in the Tender Documents or Order and that the proportion of work completed upto any time in relation to the entire work to be under the Contractor Order shall not be less than the proportion that the time elapsed bears to the total time of completion provided in the Tender Documents or Work Order/ Sub Work Order.

The contractor shall suspend the execution of the work, or any part or parts thereof whenever called upon in writing by the Engineer–in–charge to do so, and shall not resume work thereon until so directed in writing by the Engineer –in–charge. The Contractor will be allowed an extension of time for completion not less than the period of suspension. However, no other claim in this respect for compensation or otherwise however will be admitted. Provided the cause for suspension is not attributable to any default on the contractor's part to proceed with or fulfill the contractual obligations. This may also be extended to allow for alteration of work made by the deviation order.

## 8. Stores and Material

The Contractor shall, at his own cost and expense, provide all material required for the works, other than those which are to be supplied by Bharat Heavy Electricals Limited. All material to be supplied by the Contractor shall be of the best kind as described in the specifications and the Contractor shall, if requested by the Engineer–in–charge, furnish proof to the satisfaction of the Engineer-in-charge, that the material so comply with the specifications.

The contractor shall, at his own expense and without delay, supply samples of material proposed to be used in the execution of the work for approval of the Engineer–in–charge, who may reject the material not corresponding either in quality or character to the approved samples.

In the case of provision of material from stores, the Contractor shall bear the cost of loading, transporting to site, unloading, storing under cover as required assembling and jointing the several parts together as necessary and incorporating or fixing these stores material in the work, including all preparatory work of whatever description as may be required, and of closing, preparing, loading and returning empty cases or containers to the place of issue without any extra charges.

## 9. Delay and Extension of Time:

If, in the opinion of Engineer–in–charge the work is delayed:

i) by reason of abnormally bad weather, OR
ii) by reason of serious loss or damage by fire, OR

iii) by reason of Civil commotion, local combination of workmen strikes or lockout, affecting any of the trades employed on the work OR.

iv) by delay on the part of the agency or tradesman engaged by BHEL in executing work not forming part of this contract, OR

v) by reason of any other cause which in the absolute discretion of the Engineer–in–charge is (when he is the Accepting Officer of the Contract) beyond the Contractor's reasonable control, then in such case the Accepting Officer on the recommendation of the Engineer-in-charge (or higher authority) may make fair and reasonable extension in the completion dates of the individual items of work or the contract as a whole. Such extension which will be communicated to the Contractor by the Engineer–in–charge in writing shall be final and binding on the Contractor. No other claim in this respect for compensation or other–wise howsoever is admissible. Upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-charge but shall nevertheless use constantly his best endeavor to prevent or make good the delay and shall do all that may reasonably be required to the satisfaction of the Engineer–in–charge to proceed with the work.

**10. Patent Rights:**

The Contractor shall fully indemnify BHEL or the agent, servant, or employee of BHEL against any action, claim or proceeding relating to infringement or the use of any patent or design or any alleged patent or design rights, and shall pay any royalties which may be payable in respect of any article/ or part thereof included in the contract.

In the event of any claims being made or action brought against BHEL or any agent, or servant or employee of BHEL in respect of matters aforesaid the Contractor shall immediately be notified thereof for taking necessary action provided that payment of indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the BHEL but the Contractor shall pay any royalties payable in respect of any such use.

**11. GST:**

GST will be reimbursed to the Contractor on submission of necessary documents of having paid and filed in the GST portal. Any other charges, duties etc. if any shall be borne by the contractor.

**12. Royalties**

Royalties fixed from time to time as per prevalent local rules will be recovered for material, which the Contractor may be allowed to remove from quarries situated on land which is in charge of the BHEL authorities

**13. Plant and Equipment:**

The Contractor, shall at his own expense, supply all tools, plant and equipment (here-in-after referred to as T & P) required for the execution of the contract.

**14. Assignment or Transfer of Contract:**

The Contractor shall not, without the prior written approval of the Accepting Officer, assign or transfer the Contract or any part thereof, or any share, or interest therein to any other person.

No sum of money which may become payable under the Contract shall be payable to any person other than the Contractor unless the prior written approval of the Accepting Officer to the assignment or transfer of such money is given.

**Sub Contract:**

The Contractor shall not sub–let any portion of the Contract without the prior written approval of the Accepting Officer.

## 15. Compliance to Regulations and Bye Laws:

The Contractor shall conform to the provision of any statute relating to the work and regulations and bye-laws of any local authority and of any water and lighting Companies or Undertakings with whose system the work is proposed to be connected. He shall, before making any variation from the drawings or the specifications that may be necessitated for such connections give the Engineer– in– charge notice, specifying the variation proposed to be made and the reasons there for and shall not carry out any such variation until he has received instructions from the Engineer–in–charge in respect thereof. The contractor shall be bound to give all notice required by Statute Regulations or Bye-laws as aforesaid and to pay all fees, and taxes payable to any authority in respect thereof.

## CHAPTER III
## PERFORMANCE OF THE CONTRACT

### 16. Security Deposit:

The details of Security Deposit are provided in detail in the relevant section of this tender.

### 17. Order under the contract

All orders, notices etc., to be given under the contract shall be in writing typescript, email or printed and if sent by registered post to the address given in the tender of the contractor, shall be deemed to have been served on the date when in the ordinary course they would have been delivered to him.
The contractor shall carry out without delay all orders given to him.

### 18. Admission to site

The Contractor shall not enter on (other than for inspection purposes) or take possession of the site unless permitted to do so by the Engineer-in-charge. The portions of the Site to be occupied by the Contractor will be clearly defined and marked on the site plan, and the Contractor will on no account be allowed to extend his operations beyond these areas.

The Contractor shall provide, if necessary or required at the Site, temporary access there to and shall alter, modify and maintain the same as required from time to time. He shall take out and clear away the access route when no longer required and restoring the area to its original condition.

The Engineer-in-charge shall have power to execute other works (whether or not connected with the work in the contract agreement) on the site contemporaneously with the execution of the original work and Contractor shall give reasonable facilities for this purpose.

BHEL reserves the right of taking over, at any time, any portion of the site which they may require and the Contractor shall at his own expense clear such portion forthwith. No photographs of the Site or of the work or any part there of shall be taken, published or otherwise circulated without the prior approval of the Engineer-in-charge.

No such approval shall however exempt the contractor from complying with any statutory provisions in regard to the taking and publication of such photographs.

BHEL Officials connected with the Contract shall have the right of entry to the Site at all times.

Engineer - in charge shall have the power to exclude from the site any person whose admission there to may, in his opinion be undesirable for any reason whatsoever.

### 19. Contractor's Supervision

The Contractor shall either himself supervise the execution of the Contract or shall appoint a competent Agent approved by the Engineer–in–charge to act in his stead. The contractor shall

employ an Engineer/Agent having at least a 'Degree of Bachelor of Civil Engineering' from a recognized University or 'Diploma in Civil Engineering 'from a recognized Board with minimum 3 years' work experience.

The Employment of an Engineer/Agent as aforesaid shall not be necessary if the Contractor himself in possession of a recognized technical qualification and is in opinion of the Engineer-in-charge capable of receiving instructions of the Engineer–in–charge and of executing the work to the satisfaction of the Engineer–in–charge. If the Contractor fails to appoint a suitable Engineer/ Agent as aforesaid, the Engineer–in–charge shall have full powers to suspend the execution of work and stop payment of any advances that may have become due until such date as a suitable Engineer/Agent is appointed and the contractor shall be held responsible for the delay caused to the work and no extension of time on this account shall be given to him as stipulated in condition (9) above.
Orders given to the Contractor's Agent/Engineer shall be considered to have the same force as if they had been given to the Contractor himself.

The contractor or his Agent shall be in attendance at the site during all working hours and shall supervise the execution of work with such additional assistance in each trade as the Engineer–in - charge may consider necessary.

The contractor or his accredited agent shall attend when required and without making any claim for doing so, either the Office of the Engineer–in–charge or the work site to receive instructions.
The Engineer–in–charge shall have full powers, and without assigning any reason to require the Contractor immediately to cease to employ in connection with the Contract any Agent, servant or employee whose continued employment is, in his opinion undesirable.

The Contractor shall not be allowed any compensation on this account.

**20. Labor:**

The Contractor shall, during the progress of the work engage sufficient skilled labor to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-charge. The Contractor shall not employ in connection with the works any person who has not completed Eighteen years of age. All the statutory provisions for the safety and welfare of the laborers should be ensured as provided in this tender document.

**21. Water:**

Water shall be provided by BHEL at free of cost for carrying out the civil works.

**22. Temporary Workshops, Stores Etc.**

The Contractor shall, during the progress of the work provide, erect and maintain at his own expense all necessary temporary workshops, stores, offices, etc., required for the proper and efficient execution of the work. The planning, siting and erection of these buildings shall have the approval of the Engineer-in-charge and the Contractor shall at all times keep them tidy and in a clean and sanitary condition to the entire satisfaction of the Engineer-in-charge.

On completion of the work all such temporary buildings shall be cleared away and the site restored and left in a clean and tidy condition to the entire satisfaction of the Engineer-in-charge.

**23. Stores and Material on Site**

All stores and material required for the work are to be deposited by the Contractor only in places to be indicated by the Engineer-in-charge.

Where in accordance with the contract stipulations certain Stores & Material (for incorporation in the work) are to be issued to the Contractor by the BHEL and **such items will be so issued only to the extent required for the actual completion of the work** as stipulated in the contract. The decision of the Engineer-in-charge regarding the quantities to be issued as above shall be final and binding on the contractor. For any excess quantities consumed on the work upto 5% over the theoretical consumption will be charged at issue rates and excess consumption beyond this limit, their cost will be recovered from the Contractor at punitive rates which will be 100% (Hundred Percent) more than the issue rates of the BHEL

In regard to the material and stores which may be issued to the Contractor by BHEL the Contractor shall give the Engineer-in-charge reasonable notice in writing of his requirements of such stores and material and on the approval of his demand being notified to him, he shall make immediate arrangements for drawing the same. Such stores and material shall be transported by the Contractor at his own expense direct from the place of issue to the site of the work, unless prior written approval is obtained from the Engineer-in-charge to take them to a Store or Workshop elsewhere.

BHEL Officers connected with the Contract shall have the power at any time to inspect and examine any stores or material intended to be used in or on the work, whether on the site or at any factory or workshop or other place where such stores or material are being fabricated or manufactured or at any place where the same are lying and the contractor shall give necessary facilities for such inspection and examination.

The Engineer-in-charge shall be entitled to have tests made of any stores or material supplied by the Contractor who shall provide at his own expense all facilities which the Engineer-in-charge may require for this purpose. If at the discretion of the Engineer-in-charge an independent expert is employed to make any such tests his charges shall be borne by the Contractor only if the test discloses that the said stores or material are not in accordance with the provisions of the Contract.

Should the Engineer-in-charge consider at any time during the construction or re-construction, on prior to the expiry of the "MAINTENANCE PERIOD" that the stores or material provided by the Contractor are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract (in respect whereof the decision of the Engineer-in-charge shall be final and conclusive) the Contractor, shall on demand, in writing from the Engineer-in-charge specifying the Stores or material complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith remove the stores or material so specified and provide other proper and suitable stores or material at his own expense; to the entire satisfaction of the Engineer-in-charge. In the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid, the Engineer-in-charge may

replace within others the stores or material complained of at the risk and expense in all respects of the Contractor. The liability of the contractor under this condition shall not extend beyond the maintenance period aforesaid except as regards stores or material which the Engineer-in-charge shall have previously given notice to the contractor to replace.

**(*MAINTENANCE PERIOD for any work under this Organization will be a minimum of SIX MONTHS or as specified in the tender FROM THE DATE OF ACTUAL COMPLETION of the particular work and handing over to BHEL).**

All stores and material brought to the Site shall become and remain the property of BHEL and shall not be removed from the site without prior written approval of the Engineer-in-charge. However, when the work is finally completed, the Contractor shall at his own expense forthwith remove from the site all surplus stores or material originally supplied by him and upon such removal, the same shall revert in and become the property of Contractor. All BHEL Stores and material issued to Contractor for in-corporation or fixing in the work and which, making due allowance for reasonable wear and tear/or waste, have not on completion of the work been so incorporated or fixed, shall be returned by the Contractor at his own expense to the place of issue.

Credit for surplus stores and/ or material returned by the contractor to BHEL will be given to him at a price based on the prevailing market rate but not exceeding that at which the said stores and material were originally issued to him but due consideration shall be given to the allowance claimed by BHEL in respect or any depreciation or damage suffered by the stores and/or material whilst in the custody of the Contractor regarding which the decision of Engineer-in-charge shall be final and conclusive.

If, in the opinion of the Engineer-in-charge (which shall be final and conclusive) any stores, supplied by BHEL have either during currency of the work or after completion of the work whilst under the custody of the Contractor, become damaged to such an extent that they cannot be usefully utilized, either in the same work or in other works, the Engineer-in-charge shall not accept the stores and in the event of his rejection the contractor shall be charged for the said Stores at a rate as fixed by the Accepting Officer. The Contractor shall not be entitled to any claim whatsoever on this account.

**24. Tools and Plants on site:**

All tools, plants and equipment brought to the site shall become the property of BHEL and shall not be removed from the site without the prior written approval of the Engineer-in-charge when the work is finally completed or the Contract is determined for reasons other than the default of the Contractor he shall forthwith remove from the site all tools, plants, equipment etc., (other than those as may have been provided by BHEL) and upon such removal, the same shall in, and become the property of the Contractor.

**25. Statement of Hire Charges:**

A monthly detailed statement of the hire charge incurred in respect of BHEL tools, plants, equipment etc., shall be given to the Contractor by the Engineer-in-charge

**26. Precaution Against risks:**

The Contractor shall be responsible for providing at his own expense, for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose until the works have been handed over complete in all respect of the Engineer-in-charge.

The Contractor shall be responsible for the protection of the site, the work, the material, tools, plants, equipment and anything else lying on the Site during the progress of the work. He shall be solely responsible for and shall take all reasonable and proper steps for protecting, securing, lighting and watching, all places on or about the work and the Site which may be dangerous to any person whomsoever.

**27. Notices and Fees:**

The Contractor shall give all notices required by any Statutory provision or by the regulations and/or bylaws of any local Authority and/or of any Public Service, Company or Authority affected by the work or with whose system the same are or will be connected. The Contractor shall pay and indemnify BHEL against any fees and charges payable under such Acts. Regulation and/or byelaws in respect of the work and shall make and supply all drawings and plans required in connection with any such notice.

**28. Setting out of the Works and Protective and Maintaining Signals and Works:**

The Engineer-in-charge shall supply dimensioned drawings, levels and other information necessary to enable the contractor to set out the work. The Contractor shall at his own expense set accurately according to the drawings and figured dimension thereon, all the work comprised in the contract and any extras or additions there-to and shall be solely responsible for their being so set out and executed. All bench marks, pegs, signals on the surface, alignment stones, milestones and all similar marks whether put in by BHEL Authorities for the purpose of checking the Contractor's work or in the nature of permanent survey marks will during the tenure of the contract, be under the care of the Contractor who shall, at his own expense, take, all proper and reasonable precautions and care to preserve and maintain them in their true position. In the event of these marks being disturbed or obliterated by accident or due to any other cause whatsoever, the same may, if deemed necessary, be replaced by the Engineer-in-charge at the Contractor's expense and the cost thereof deducted from any money then or thereafter becoming due to the Contractor.

Where requested by the Contractor, the level marks, center line and chainage pegs corresponding to those shown on the Drawing will be pointed out to the Contractor on the ground but all bench marks or chainage pegs additional to those shown on the Drawing will be set out by BHEL authorities.

**29. Site Drainage:**

All water that may accumulate on the site during the progress of the work or in trenches and excavations shall be removed to the entire satisfaction of the Engineer-in-charge and at Contractor's expense.

**30. Excavations, Relics Etc.**

Material of any kind obtained from excavation on the site shall remain the property of BHEL and shall be disposed of as Engineer-in-Charge directs.

All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures, relics, antiques and other similar items which may be found in or upon the site shall be the property of Bharat Heavy Electricals Limited and the Contractor shall duly preserve the same to the satisfaction of the BHEL and shall from time to time deliver the same to such person or persons as the BHEL may appoint to receive the same.

**31. Foundations**

The Contractor shall not lay any foundations until the excavations for the same have been examined and approved in writing by the Engineer-in-charge.

**32. Covering-in Work**

The Contractor shall give reasonable notice in writing to the Engineer-in-charge whenever any work is to be permanently covered up or concealed, whether by earth or other means so that it can finally be inspected or measured if necessary. In default of so doing, the Contractor shall, if required by the Engineer-in-charge uncover such work at his own expense.

**33. Approval of works by Stages:**

All work embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice in writing to the Engineer-in-charge when each stage is ready. In default of such notice being received, the Engineer-in-charge shall be entitled to approve the quality and extent thereof at any time he may choose and in the event of any dispute, the decision of the Engineer-in-charge thereon shall be final and conclusive.

**34. Execution of the Work:**

The work shall be executed in a workman-like manner and to the satisfaction in all respects of the Engineer-in-charge.

The Engineer-in-charge will communicate or confirm his instructions to the Contractor in respect of the execution of the Work in a "Work Site Order Book" maintained at his office and the Contractor shall visit this office daily and shall confirm receipt of such instructions by signing the relevant entries in this book. Such entries will rank as order or notices in writing within the intent and meaning of these conditions.

**35. Day Work:**

No day-work shall be performed without the prior written instructions of the Accepting Officer.

The Contractor shall give to the Engineer-in-charge reasonable notice of the start of any work ordered to be executed by day-work and shall deliver to the Engineer-in-charge within two days of the end of each pay week a return in duplicate giving full detailed accounts of labor and material for that pay-week. One copy of each of these returns, if found correct, will be certified by the Engineer-in-charge and returned to the contractor and must be produced at the time of adjustment of accounts.

An invoice in duplicate signed by the Contractor or his agent shall be sent with each delivery of material for day-work and the Contractor will be furnished with a receipt signed by the Engineer-in-charge specifying the description, quantities weight or measurement (as the case may be) of the articles approved, reference will be made in this receipt in the return aforesaid and the Contractor's Bill.

In the case of Lump Sum Contracts, the rates to be charged and the percentage addition for profit and establishment charges, etc., will be agreed upon between the Accepting Officer and the Contractor prior to the execution of the work.

**36. Inspection of the Work:**

BHEL Officers concerned with the Contract shall have power at any time to inspect and examine any part of the work and the Contractor shall give such facilities as may be required to be given for such inspection and examination Should Engineer-in-charge consider, at any time during the expiry of the maintenance period, that any work has been executed with unsound, imperfect or unskilled workmanship or of a quality inferior to that contracted for or not otherwise in accordance with the contract (in respect) whereof the decision of the Engineer-in-charge shall be final and conclusive the Contractor shall on demand in writing from the Engineer-in-charge specifying the fault notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work so specified in whole or in part as the case may be required at his own expense to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand as aforesaid, the Engineer-in-charge may carry out the work by other means at the risk and expense in all respects of the Contractor. However, the liability of the Contractor under this condition shall not extend beyond the maintenance period except as regards workmanship which the Engineer-in-charge shall have previously given notice to the Contractor to rectify.

**37. Responsibility for Building:**

In the event of any building or part of any building being handed over to the Contractor for the execution of work thereto under the provisions of the Contract, he shall give a written receipt for all fixtures, glass etc. and he shall be required to make good at his own expense all damages resulting from any cause whatsoever while in his charge and on completion of the work to deliver the said building or part thereof in a clean state complete in every particular to the entire satisfaction of the Engineer-in-charge.

**38. Insurance:**

As specified in the tender document.

**39. Damage and loss to private property and injury to workmen**

The contractor shall at his own expense reinstate and make good to the satisfaction of the Engineer–in-charge and pay compensation for any injury, loss or damage occasioned to any property or rights whatever including property and rights of **BHEL**, (or agents, servants or employees of **BHEL**) the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify

BHEL, against all claims enforceable against BHEL, or any agent, servant, or employee of BHEL a private person, in respect of any such injury (including injury resulting in death loss or damage to any person) whosoever or property, including all claims which may arise under the workmen's Compensation Act or otherwise, or which would be enforceable against BHEL.

**40. Completion**

The works shall be completed to the entire satisfaction of the Engineer-in-charge and in accordance with the Contractor's forecast of Time and Progress where operative, and all unused stores and material, tools, plants, equipment, temporary buildings and things shall be removed and the site and work cleared of rubbish and all waste material and delivered up clean and tidy to the satisfaction of the Engineer-in-charge at the Contractor's expense and/or before the Scheduled date of completion.

BHEL shall have power to take over from the Contractor from time to time each sections of the work as have been completed to the satisfaction of the Engineer-in-charge.

In case the Contractor fails to remove any of his properties, assets or fails to clear the rubbish and waste material within 30 days of the completion of the contract, it is lawful for the contractee, that is BHEL to take such action as it deems fit to clear dispose of such properties, assets or such waste material and charge the contractor any expenses incurred thereon.

The Engineer-in-charge shall certify to the Contractor the date on which the work is completed and the state thereof.

The Engineer-in-charge shall also certify to the Contractor the state of the work at the end of maintenance period, where applicable.

**41. Compensation for Delay:**

1) There exist different locations in the factory complex. Hence, the contractor shall ensure that himself or his authorized representative visits and meets the Engineer in-Charge of the respective areas where work is allocated to the contractor to receive work instructions / complaints on daily basis by 9:00 AM as instructed by Engineer-in-charge.

2) If the Contractor / his representative fails to turn up to the office of the Engineer in-charge to receive the complaints / instructions by 09:00 AM, it will be considered as "Absent" and recovery for non-deployment of supervisor will be levied at the prevailing minimum wages (including statutory requirements i.e. PF, ESI, etc.) along with additional 5 % over heads will also be effected from the date of LOI.

3) Sub work orders will be issued through e-mail under this contract with specific completion period.

4) The contractor shall commence the works immediately after the issue of Sub work order issued through email.

If the contractor fails to commence the work even after lapse of 7 days from issue of sub work order through email, a penalty of Rs. 1000/- per day of delay will be imposed from 8th day onwards if the delay is attributable to the contractor.

If the contractor fails to commence the works even after 14 days from the date of issue of sub work order through email, the engineer in-charge may cancel the sub work order and execute the same, by engaging alternate agency. In such cases, penalty of 10 % of Sub work order value shall be recovered from the dues of the defaulting contractor.

5) LIQUIDATED DAMAGES

a) If the contractor fails to maintain the required progress of work which results in delay in the completion of the work as per the sub work order, BHEL shall have the right to impose Liquidated Damage at the rate of 1% of Sub Work order value per week or part thereof delay subject to a maximum of 10 % of Sub Work order value.

b) Sub Work order value - Value for this purpose, shall be the final executed value only, by the contractor.

6) During the original contract period or its extensions if any, BHEL reserves the rights to terminate the contract or withdraw portion of work and get it done through other agency, after due notice of a period of 14 days (this period can be reduced in case of urgency or increased otherwise) by BHEL in any of the following cases

a) Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available period (#) considering contractor's performance of execution.
b) Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
c) Non completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
d) Termination of Contract on account of any other reason (s) attributable to Contractor.
e) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
f) Non-compliance to any contractual condition or any other default attributable to Contractor.
g) Non Commencement of Work within the period as mentioned in the contract.

# In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.

7) In case of

*a)* breach of contract (or)

*b)* termination of contract (or)

*c)* if portion of work is withdrawn and the withdrawn portions of work amounting more than 5 % of the total contract value due to unsatisfactory performace of the contractor,

wherever the value of security instruments like performance bank guarantee, Security deposit, etc.. available with BHEL against the said contract is atleast 10% of the contract value, the same shall be encashed / recovered. In case the valueof the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or through legal remedies. Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

8) LD against delay in executed work/supply in case of Termination of Contract.In addition to Penalty,etc.. (If any), LD for completed work shall also be levied as mentioned below.

a) LD against delay in executed work shall be calculated in line with LD clause of the contract for the delay attributable to contractor.

b) For this case, Contract value shall be taken as Executed Value of work for the purpose of limiting maximum LD value.

c) Method for calculation of "LD against delay in executed work" is given below.

i) Let the time period from scheduled date of start of work till termination of Sub work order excluding the period of Hold (if any) not attributable to contractor/ supplier= T1

ii) Let the value of executed work till the time of termination of Sub work order = X

iii) Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of Sub work order = Y

iv) Delay in executed work/supply attributable to contractor i.e.

$$T2 = (1 - (X / Y)) \times T1$$

d) LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as delay attributable to contractor.

9) Any tools/spares/machinery (other than free issue materials) issued by BHEL on written request by contractor will be on chargeable basis and based on availability. The charges shall be decided by BHEL and deemed to be final binding the contractor.

**42. Laws governing the contract:**

This contract shall be governed by the Indian Laws for the time being inforce.

**43. Cancellation of Contract for Corrupt Acts:**

As specified in the tender document.

**44. Cancellation of Contract for Insolvency, Assignment or Transfer or Sub-Letting of Contract:**

As specified in the tender document.

**45. Cancellation of contract in part or in full for contractor's default:**

As specified in the tender document.

**46. Termination of Contract for Death:**

As specified in the tender document.

**47. Special Powers of Determination:**

If at any time after the acceptance of the tender BHEL shall for any reason whatsoever not require the whole or any part of the work, to be carried out the project Manager/Engineer shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the foreclosing of the work.

He shall be paid at Contract rates, for the full amount of the work executed including such additional works, e.g. clearing of site, etc., as may be rendered necessary by the said fore closing. He shall also be allowed a reasonable payment (as decided by the Accepting Officer) for any expenses sustained on account of labor and material collected but which could not be utilized on the work, as verified by the Engineer-in-charge. Neither shall the Contractor have any claim for compensation on account of any alterations having been made in the original specifications, drawings, designs and instructions, involving any curtailment of the work as originally contemplated.

**48. Fair Wages:**

As specified in the tender document.

## CHAPTER IV

## VALUATION AND PAYMENT

### 49. Records and Measurements:

All items having a financial value shall be entered in the BHEL Measurement Book/ eMbook so that a complete record is obtained of all works performed under the Contract.

Work carried out for agreed lump sum will be described and similarly recorded.

Lump sum omissions will be entered for deduction. Measurement shall be restricted to that required to ascertain the financial liability of BHEL under the contract.

Work which fails to be measured in detail shall be measured physically, without reference to any local custom that may obtain excepting where it may otherwise be directed in the tender documents. The measurements shall be taken jointly by any person duly authorized on the part of the BHEL and by the Contractor.

The Engineer-in-charge shall give reasonable notice in writing to the Contractor of appointment for measurement.

The Contractor shall, without extra charge, provide assistance with appliance and other things necessary for measurement.

The Contractor shall bear all the cost of measurement of his work.

Measurement shall be entered in the BHEL Measurement Book and signed and dated by both parties each day at the Site on completion of measurement. If the Contractor objects to any of the measurements recorded on behalf of the BHEL a note to that effect will be made in the BHEL Measurement Book or against the item or items objected to; and such note shall be signed and dated by both the parties engaged in taking the measurement.

If, as a result of such objection, it becomes necessary to re-measure the work wholly or in part, the expense of such re- measurement shall be borne by the party requiring the measurement.

Measurement to be re-taken, provided that a net error is found by this re-measurement to amount to less than 5% (five percent) of the value as recorded by the first measurement. But, where the net errors amount to 5% and over of the said value, then the cost is to be borne by the other party. In any case, if the net value of errors found exceeds Rs. 500/- the expense of re-measurement is to be borne by the other party. If the Contractor's representative fails to attend when required, the Engineer-in-charge shall have power to proceed by himself to take measurement and in that case these measurements shall be accepted by the Contractor as final.

The contractor shall, once every month, submit to the Engineer-in-charge with a copy to the Civil Manager/Senior Engineer details of his claims for the work done by him up to and including the previous month which are not covered by his Contract Agreement in any of the following respects;

a. Deviation from the items and Specifications provided in the contract documents.

b. Extra Items/New Items of work
c. Quantities in excess of those provided in the contract schedule.
d. Items in respect of which rates have not been settled. He should, in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claim and that no further claims shall be raised by him in respect of the work done up to and including the period under report.

Except where any general or detailed description of the work in quantities expressly shows to the contrary, schedule of quantities shall be deemed to have been prepared and measurements shall be taken in accordance with

the procedure set forth in the schedule of rates specification notwithstanding any provision in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by the schedule of rates/ specification, measurements shall be taken in accordance with relevant standard method of measurement issued by the Indian Standard Institution or as per standard engineering practice.

**50. Valuation of Deviations:**

Rates for deviated items of work will be fixed as follows: -

I. For any item of work required to be carried out after the contract has been awarded and which is not covered by Contractor's Schedule but is covered by BHEL Schedule of rates the rate payable for such a fresh item will be derived from BHEL Schedule by the method of proportion as follows:

a. In the same proportion to rate in BHEL Schedule of Rates as the tendered rate for the nearest analogous item of work in Contractor's schedule bears to rate for the particular analogous item of work in BHEL Schedule of rates.

b. If a single appropriate analogous item of work is not available in both Schedule (Contractor's and BHEL Schedule) then the method of proportion will be applied to the nearest analogous group of items available in both the Schedules referred to i.e. in the same proportion as the total tendered cost of that particular group of items (the sum of the products of the tendered rates and the quantities for which orders are placed bears to the total cost of the same items and quantities at the BHEL Schedule of Rates.

c. If even an appropriate analogous group of items is not available in Contractor's Schedule and BHEL Schedule, then the methods of proportion will be applied to all those items of the whole work, which are available in both the Schedules and for which orders have been placed on the contractor, i.e., in the same proportion as the total cost of all these items of work (the sum of the products of the tendered rates and the quantities for which orders are placed) bears to the total cost of the same items and qualities at the BHEL Schedule of Rates.

II. If any work not covered by any of the foregoing is ordered on the Contractor, the basis of payment shall be decided by the Accepting Officer whose decision shall be final and conclusive and binding on the parties.

The selection of analogous items or analogous group of items referred to above shall be done by the Engineer-in-charge. Where the rates for deviated items or new items of work can be derived by the selection of different analogous items or analogous group of items, the lowest of all such derived rates shall be taken as the correct rate.

In the case of the contracts for which the Engineer-in-charge is the Accepting Officer, all disputes regarding the settlement of rates of deviated or new items or work shall be referred to the Deputy Manager/Manager whose decision shall be final and conclusive as the case may be.

**51. Reimbursement / Refund on Variation in Price, Materials:**

No Reimbursement/ Refund on Variation in Price, Materials.

**52. Advances on Account:**

No advance / No mobilization advance will be given and the part-payment or advance for raw materials brought by the successful tenderer will not be paid. The payment for the finished items of works only will be paid after incorporating the required raw materials into the work, if any

No Over Run Charges shall be applicable under any circumstances.

**53. Final Bill**

As soon as possible after the completion of the work to the satisfaction of the Engineer-in-charge, the contractor shall forward a certified final account on BHEL form, in duplicate. It shall be accompanied by all abstracts, vouchers etc., in support thereof and shall be prepared in the manner prescribed by the Engineer-in-charge. No claims will be entertained after the receipt of the final bill. The Contractor shall be entitled to be paid the final sum less the value of payments already made on account subject to certification of the final bill by the Engineer-in-charge. Any sums due from the contractor on account of Tools & Plant, Stores or any other items provided by BHEL not yet recovered from the contractor shall be deducted from the final sum aforesaid.
No charge shall be allowed to the Contractor on account of the preparation of bills.

**54. Payment of Bills:**

All payment to be made to the Contractor under this contract shall be only through EFT (Electronic Fund Transfer)

**55. Recovery from Contractor:**

Whenever under the contract any sum of money shall be recoverable from or payable by the contractor the same may be deducted from any sum then due or which at any time thereafter may become due to the Contractor under the contract or under any other Contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

**56. Post Technical Audit of Work and Bills:**

BHEL reserves the right to carry out a post-payment audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and to enforce recovery of any sums becoming due as a result thereof in the manner provided in the preceding sub-paragraphs provided however that no such recovery shall be enforced after three years of passing the final bill

**57. Refund of Security Deposit:**

As specified in the tender document.

**58. Arbitration:**

As specified in the tender document.

## GENERAL AND SPECIAL SPECIFICATIONS

### i. Site Clearance

All the area upon which the construction is to be carried out and areas which are required by the Contractor for his construction facilities are to be cleared off all rubbish and objectionable matter at Contractor's own cost. Trees, if any, shall not be uprooted or cut without the prior approval of the Engineer-in-charge. All spoils, unserviceable material and rubbish shall be burnt or removed from site. Usable material, saleable timber, fire-wood etc., shall be stocked properly at work site in the manner as directed by the Engineer-in-charge. The cost of clearing the areas shall be deemed to have been included by the tenderer in his general rate.

### ii. Earthwork for Foundations

Earthwork excavation for foundations and filling in foundations shall conform to TNBP 23 and 24. The area to be excavated or filled in with excavated material shall be clearly demarcated in the field by the Contractor. Excavation shall be done to lines and levels defined. Excavation shall be carried out to such widths, lengths, depths, profiles and grades as shown in the drawing or as may be specified by the Engineer – in – charge. Rough Excavation may be carried out up to a depth 15 cm less than the final level but the balance shall be excavated to precise level with special care. All soft pockets of soil met with even below the final level shall be removed and the excavation filled up as directed by Engineer-in-charge. The methods of excavation shall in every case be subject to the approval of the Engineer-in-charge and the contractor shall ensure the safety and stability of the excavations, being executed by him as well adjacent buildings, structures, services and other works in the vicinity of the site of work. Wherever necessary Engineer-in-charge may direct that the sides of the excavation should be timbered and shored at the contractor's own cost, adopting a proper method approved by the Engineer-in-charge. Notwithstanding the above, should any slip occur, the contractor shall remove all the slipped material from the excavated pit, at his own cost. He shall also make good at his own all damages caused to the work as well as adjacent buildings, structures etc., as a result of the slip, referred to.

All excavation work shall be subject to inspection and approved by the Engineer-in-charge before any further works in the excavated areas allowed to commence. Should any excavation be carried out beyond the specified depth, the contractor should fill it up at his own cost with the same type and class of material as it is proposed to be laid over the excavated portion. No payment will however be made to the contractor on his account.

The contractor shall ensure that the excavations and the structures under construction are kept free from water logging at all stages of construction. He shall take all necessary precautions and streams, aquifers, springs, surface flows etc., are excluded effectively so as to ensure that the works are carried out in a reasonable dry conditions in accordance with the construction schedule.

Back filling around the foundations, trenches, plinth and under the floor shall be done in accordance with TNBP 24 and 25. The finished level of the plinth filling shall be trimmed to the slope required to be given to the finished floor. Back filling, watering and consolidation of excavated earth in layers etc., complete as per specifications shall be done unless otherwise stipulated in the tender schedule.

**Removal of Hard rock by Blasting:**

This shall include all rock occurring in large masses which cannot be removed except by blasting. Blasting shall be done in conformity with TNBP 19 & 23 and as instructed by the Engineer-in-charge. When rock blasting has to be done adjacent to structures, the following precautions shall be observed.

a. All blasting should be completely muffled to prevent damage by flying pieces.
b. Blasting within 3 meters of the structures shall be avoided
c. No blasting should be done within 1.5 meters of concrete/ masonry structures.
d. An isolated boulder extending under the existing structure but projecting within the area of blasting should be blasted.
e. The contractor shall be responsible for all damages caused by blasting and shall replace or repair the damaged structures at his own cost.

**iii. Plain and Reinforced Cement Concrete Works:**

All design and construction shall be performed in accordance with the Indian standard code of Practice for plain and reinforced concrete – IS 456 and TNBP 30. Any Special requirements noted on the drawings or bill of quantities shall govern over the provisions of this specifications. Controlled concrete shall be used wherever specified in the schedule of items complying with all requirements of IS: 456 and as per special specifications appended herewith.

The coarse aggregate to be used shall be of hard broken granite stone jelly of various sizes as specified under respective items in the Bill of Quantities, conforming to IS 383 latest edition. The Engineer-in-charge may require the contractor to carryout moisture content tests in both fine and coarse aggregates. For determination of moisture content IS – 2386 shall be referred to. The amount of water to be added shall be then adjusted to compensate for any observed variation in the moisture contents. Proper control of mixing water is deemed of paramount importance. Mixtures with automatic water measuring drums shall be used or else. Water should be measured by volume in calibrated buckets. All measuring equipment shall be maintained in a clean serviceable condition and the accuracy periodically checked and got certified by the Engineer-in-charge. The contractor shall carryout slump tests apart from taking test cubes at regular intervals. All such methods of sampling and analysis of concrete shall be in accordance with IS – 1199.

Mixing of concrete shall be strictly carried out in an approved type mechanical mixer. The mixing equipment shall be capable of combining the aggregates, cement and water within the specified time (not less than 2 Minutes) into a thoroughly mixed and uniform mass and of discharging the mixture without segregation. Mixing shall be continued until there is a uniform color and consistency, Concrete shall be handled from the place of mixing to the place of final deposit as

rapidly as practicable by methods which will prevent segregation or loss of any of the ingredients. Before depositing the concrete, all debris and dirt shall be removed from the space to be occupied by concrete. Concreting shall not be done unless the formwork conform to the shapes, lines and dimension as shown in the drawings.

Unless otherwise approved, concrete shall be placed on single operation to the full thickness of slabs and beams and similar members and not exceeding 1-meter-deep in walls, columns and similar members. Concrete shall be placed continuously until completion of the part of the work between construction joints or as directed by the Engineer-in-charge. The concrete after being laid shall be compacted by means of vibrators of approved type under proper supervision as directed by the Engineer-in-charge. Care should be taken to avoid segregation and formation of air bubbles. The whole process starting from the mixing of concrete to the placing and compaction shall not take more than 20 minute and the process shall be completed before the initial setting takes place. Curing shall be accomplished in accordance with IS-456 by keeping the concrete covered with a layer of sacking, canvas or similar absorbent material and kept constantly wet for the period as directed by the Engineer-in-charge.

**Reinforcement:**

All reinforcement shall be clean and free from pitting, loose mill-scales, dust, loose rust and coats of paint, oil or other coatings which may destroy or reduce bond. General construction details and workmanship relative to reinforcement including bar bends, lap splices and installation shall be in accordance with the IS-2502 as well as IS-456. All bars be bent as per the bar bending schedules indicated in the drawings or supplied separately relevant to particular drawing. The contractor shall in all cases verify himself the correctness of schedules, giving the number, length and the bending details of the bars. The numbers, sizes, shape and position of all the reinforcement shall, unless otherwise, directed or authorized by the Engineer-in-charge be strictly in accordance with the drawing. The reinforcement shall be adequately held in position by 18/ 20 SWG soft black annealed binding wire. The contractor must obtain the approval of Engineer-in-charge for the reinforcement placed, before any concrete is placed in the form. All reinforcing bars shall be so tied as to form a rigid cage to prevent displacement before or during concreting. Rate quoted for reinforcement should include cost of transporting M.S. Rods/ CTD bars from BHEL Store to site of work, cleaning, cutting, bending, placing, binding with contractor's own binding wire and providing necessary cover blocks of concrete but excluding cost of steel which shall be supplied free of cost at BHEL Stores.

**Form Work:**

Formwork shall conform to the shape, lines and dimensions of concrete and RCC structures as shown in the drawings and shall be well within the permissible tolerance. Formwork for concrete shall be of plywood, steel, good seasoned timber or other approved material, properly designed easy for removal and cleaning. They shall be of sufficient strength and rigidity to maintain their position and shape under loads incidental to placing concrete. The number of props, their sizes and dispositions shall be such as to be able to safely carry the full dead load area constructional loads. The arrangement and alignment of formwork shall be got approved by the Engineer-in-charge prior to concreting. However, this shall not relieve the contractor from his responsibility for proper work and safety. Formwork shall be sufficiently tight to prevent loss of cement slurry from the concrete. All joints and holes in the formwork shall be caulked with putty jute cloth or other approved material to the satisfaction of the Engineer-in-charge. The stripping time for the shuttering and the formwork shall in general conform to the provisions in the relevant clauses of IS 456. Unless otherwise specified rates for reinforced cement concrete shall include cost of centering, shuttering charges also.

**Expansion and Other Joints:**
Expansion Joints in concrete structures shall be provided at specified places as indicated in the drawings. The material shall be as specified by the Engineer-in-charge, expansion joints, with or without metal strip shall be as shown on drawings the filler shall be "EXPANSION JOINT FILLER" pre-molded non – extruding type fibrous joint filler impregnated with bitumen conforming to IS: 1838. The filler shall be durable, waterproof, compressible and shall have a high degree recovery after compression is released, ensuring thereby that no free space develops in the expansion joints. The top 25 mm, or as specified in the drawings, shall be sealed with "SHALITEX SEALING COMPOUND" or equivalent after application of approved primer.

**iv. Stone Masonry:**

**General**:
Stone masonry shall conform to TNBP 35. Stone shall be obtained from the approved quarry and shall be free from decay and weathering.

All stones shall be thoroughly wetted before use. The mortar used for jointing shall be as specified under the respective items of the 'Bill of Quantities'.

The walls shall be carried up truly plumb. Every stone shall be carefully fitted to the adjacent stones so as to form neat and closed joints.

To give sufficient lateral bond, vertical joints shall be avoided. Prescribed number of headers as required shall be provided to give sufficient transverse bond. At junctions of wall the stones each alternate course shall be so carried into each of the respective walls as to unite the work thoroughly. Where breaks are unavoidable in carrying up the work continuously in horizontal course sufficiently long steps shall be left to join the old and new work building of two thin faces and filling up the middle with small stuff or dry packing shall be strictly avoided. When plastering or raised pointing is not required to be done joints shall be struck flush and finished simultaneously.

**Coursed Rubble Masonry:**
Coursed rubble masonry shall conform to TNBP 35-H, I and J. Faces shall be accurately squared and all face joints shall be dressed at right angles. This bushing on the facing stones shall not project more than 38mm.

Face stones shall be laid alternate headers and stretchers. Depth of each course shall not be less than 150 mm. No course shall be greater than any course below. The height shall not exceed the breadth of stones of face. No stone shall tail into the wall less than its height. No pinning shall be allowed on the face. The stones shall be solidly bedded set full in mortar with joints not exceeding 12 mm in thickness.

**Random rubble masonry:**
Random rubble masonry work shall conform to TNBP 35-L and J. Stones shall be hammer dressed at faces and joints to enable them to come into close proximity with each other. The face stone shall be laid headers and stretchers alternately, so as to break joint by at least 75mm. Thickness of joint shall not exceed 12mm. No pinning shall be used on the face and face stone shall extend well back into the headers. Stones less than 130 mm. in height shall not be used on the face.

Bond stones running through the wall shall be provided at 1.8M intervals in walls up to 0.60 M. thickness and if the wall is more than 0.60 M. thick a line of headers shall be laid from face to back each header overlapping the other by at least 150 mm.

**v. Brick Masonry:**

Brick works shall be classified as first or second class according to the classification of bricks used and the method of laying. The thickness of joints shall not exceed 6 mm. In first class brickwork and 10 mm in second class brick work.

First class Bricks: Brick shall be sound, hard, tough, rectangular in shape and size, well burnt of uniform deep red or copper color and conform to IS – 1077.
Brick shall be free from cracks, chips, flaws, stone or humps of any kind. Bricks shall be homogeneous in texture and evict a clear ringing sound on being struck and shall have a minimum compressive strength of 50KG/ sq.cm. and shall not absorb water more than 20% of its weight, when soaked in cold water for 24 Hrs. All bricks shall be table molded.

Second Class Bricks: These shall be ground molded but should otherwise conform to the specifications of first class bricks except for some surface cracks are allowable. These shall have minimum compressive strength of 50 Kg. /sq.cm.

Samples of each type of brick, shall be got approved by the Engineer-in-charge before being used. All subsequent deliveries shall be up to the standards of the approved samples.

Brickwork shall conform to TNBP31 and IS –2212.

Bricks shall be well soaked before use on works for at least 6 hrs. The soaked bricks shall be kept on wooden planks or platform. Brick required for masonry with clay or lime mortars shall not be soaked.

Brickwork shall be laid with specified mortar to be prepared in accordance with IS –2250. Brick works shall be laid in English Bond unless otherwise specified. Half or cut bricks shall not be used except when needed to complete the bond. Each course shall be taken up truly plumb, if battered, the batter is to be truly maintained. The level of brickwork shall be checked up at every one-meter interval. Bricks shall be laid with frogs upward. While laying, bricks shall be thoroughly bedded and flushed in mortar and tapped into position with a wooden mallet and the superfluous mortar removed. Walls of all structures shall be carried up regularly in all cases, leaving no part, one meter lower than the other. Where the masonry of one part has to be delayed, the work shall be racked back according to bond (and not toothed) an angle not exceeding 45 Deg. But the racking back should not start within 60cm. of a corner vertical joint. Joints in alternate courses shall come directly over one another. The brickwork shall not be raised more than 14 courses per day. All iron fixtures, pipes, conduits, drains, sleeves, bolts, holdfasts of doors and windows etc. which are required to be built in walls shall be embedded in cement mortar or cement concrete as specified, in their correct position as the work proceeds.

**Joints:**
Joints shall be restricted to 6 mm in first class brickwork and 10mm in second class brick work. All bed joints shall be normal to the pressure upon them, radial in arches and at right angles to the face in battered retaining walls. Care shall be taken that all joints are fully mortared

(proportion as specified in the schedule items) well flushed up and in case where no pointing to be done, neatly struck as the work proceeds. The joints in faces which are to be plastered or pointed shall be squarely raked out to a depth of 12 mm while the mortar is still green. The raked joints shall be well brushed to remove loose particles. After the work the faces of work shall be cleared well by brush so as to remove any splashed mortar during the course of raising the brickwork.

**Curing:**

Green work shall be protected from rain by suitable covering. Masonry work shall be kept thoroughly well-watered on all faces for at least 10 days after completion. In case of fat lime mortar curing shall commence two days after laying of masonry and shall continue for seven days.

**vi. Scaffolding**

Scaffolding will generally be single but may be double if warranted for the particular work as approved by the Engineer-in-charge. The contractor shall take all measure to ensure safety of work and the working people.

Payment for brickwork shall be made on cubic meter basis on the volume of actual work done. Half brick wall and brick on edge wall shall be paid on square meter basis. The rate of brick work shall include scaffolding and all items mentioned above and no extra payment will be made for cutting bricks if required either for openings or for rounding or insertions or for recesses at the time of brick wall construction.

**vii. Damp Proof Course**

Damp proof course shall either be with cement concrete or with cement mortar of specified thickness as mentioned in the relevant item of schedule. Damp proof course shall not be carried across doorways. It shall be laid for all walls except verandah retaining wall or for particular wall only as directed by the Engineer-in-charge. It shall be laid flush with floor level or as instructed by the Engineer-in-charge.

Damp proof course with cement concrete shall be of 25 or 38 mm thick in cement concrete M15/M20 as specified using 12mm. and down size aggregate, well rammed and smoothened with trowel. It will be kept wet for 40 hours and after it has dried, two coats of hot bitumen shall be applied over it and allowed to dry after which sand shall be sprinkled over it.

Damp proof course with cement mortar shall be 12 or 20 mm thick in cement mortar 1:3 well mixed with crude oil at 5% by weight of cement used.

**viii. Cement Plastering:**

Cement plastering shall be in accordance with IS – 1661 and TNBP –56 & 57, Cement mortar shall conform to IS – 269. The mortar of specified mix and thickness shall be used.

The surface to be plastered shall be thoroughly cleaned so that it is free from dust, oil, salts etc., The joints of masonry shall be racked out to a depth of at least 12 mm. On cement concrete surfaces the surface shall be cleaned with wire brush and scarified by lines with trowel or hacking done. The surfaces in both cases shall be washed properly and kept wet for 4 hours before plastering is commenced.

Plastering shall be started from top and gradually worked down towards the floor. It shall not at any place be thinner than specified. To ensure even thickness plaster of about 15 cm X 15 cm shall be first applied horizontally and vertically at not more than 2 meters' intervals over the entire surface to serve as gauges. The surface of these gauges shall be truly in the plane of finished surface. The mortar shall then be laid in the wall or other surfaces between the gauges and finished even. All corners shall be rounded to a radius of 24 mm unless otherwise directed. The contractor shall not be paid for any extra thickness of plaster done than as specified.

Plaster, when more than 15 mm thick shall be applied in two coals, a base coat followed by the finishing coat. Thickness of the base coat shall be just sufficient to fill up unevenness in the surface, no single coat, however, shall exceed 12mm in thickness. The under coat shall be roughened or scratched before it is fully hardened.

Curing shall start 24 hours after the plaster is laid. It shall be kept wet for 14 days. During this period, it shall be suitably protected from all damages at the contractor's cost by such means as approved by the Engineer-in-charge.

Any cracks which appear in the surface shall be cut out in rectangular shape and redone as directed by the Engineer-in-charge. Wherever specified standard waterproofing compound as approved by the Engineer-in-charge shall be added to the mortar at the rate of 2% or as specified by the manufacturer by the weight of cement for which the rate shall be paid separately. The rate for plastering shall include cost of scaffolding, swing etc., needed for the work with labor and material all complete.

**ix. Steel Door, Windows and Ventilators:**

All steel doors, windows and ventilators shall conform to IS – 1038, IS – 1361 and IS 1081 or equivalent as mentioned in the bill of quantities and as approved by the Engineer-in-charge.

Rolled steel sections shall conform to Is – 226. The sections shall be cold straightened and finished goods shall be free from bends and other defects. Material used in the fabrication shall be the best procurable and conforming to relevant IS specification. Thickness and specification of the glass to be provided shall be as indicated in the relevant item of the bill of quantities. Glass shall be free from flaws, specks, bubbles, etc., Bolts, nuts, screws, peg stays and other mild steel fittings shall be treated for corrosion as per relevant Indian Standards. Putty for glazing shall conform to IS – 420.

Doors, windows and ventilators, etc., shall be truly square and free from twist and warp. They shall be constructed of sections which have been cut to the required lengths and welded or riveted at the corners as per standard specifications.

All steel surfaces shall first be thoroughly cleaned free of rust scale or dirt and mill scale by approved means and shall be painted with one coat of approved primer conforming IS – 102 before dispatch. Alternatively, if specified they may be galvanized by the "Hot dip" zinc spray or electro galvanizing process described IS – 1361. Doors, windows and ventilators shall be fixed in positions, as specified under IS 1081.

Whenever contractor is required to supply the doors, windows and ventilators etc., he shall first submit to the Engineer-in-charge, the details about source of supply, detailed drawing and specifications etc., for prior approval.

**x. M.S Rolling Shutters:**

It shall be of approved quality, made out of 18 gauge 75 mm black laths mechanically operated by reduction gear type mechanism. It shall be fitted with two self-aligning ball bearing with locking arrangements (both inside and outside) including MS pressed side guides bottom rails brackets and top rolling spring pressed etc., complete provided with locking arrangements for padlocks, pulling hooks, handles, top cover etc., It shall be painted with one coat of approved primer conforming to Is – 102 before dispatch.

**xi. Wooden Doors, Windows and Ventilators:**

All wood work for doors, windows, ventilators cup board, shelves, etc., conform to relevant IS specification and TNBP 82 and shall be well seasoned teak wood or well-seasoned country wood (pillamarudu or karumarudu) as the case may be. Timber shall be best quality and shall be free from knots, injurious open shales, bore holes, decay, soft or spongy spots, hollow pockets and all other defects and blemishes. Timber shall conform to IS 1003 (Part 1). Size of doors, windows and ventilators shall be as specified in the relevant item of schedule and detailed drawings and generally in conformity with IS – 1003, part I and part II. The rates for doors, windows and ventilators etc., shall be for the finished work inclusive of fixing them in position with necessary iron hold fasts and furniture fitting of oxidized iron or aluminium or oxidized brass as stated in the description of the relevant items of the bill of quantities and as directed by the Engineer-in-charge. Fittings and furniture shall be of best quality and machine made and robust type. Wherever glazed shutters are to be provided, the cost of glass panes of specified thickness and fixing them in position should be included in the quoted rate. All glass shall be of superior quality from approved manufacturer. In case of solid core flush doors, they should conform to IS:2202 Part I and Part II. The flush door shutters should have a finished thickness as specified in the scheduled item. Flush door shutters shall be obtained from firms of repute as approved by the Engineer-in-charge.

**xii. ROOFING:**

**(A) R.C.C Slabs:**

Roof slab shall be of RCC of specified mix conforming to IS: 456, with adequate main tensile, transverse and adhesive reinforcement of ribbed steel bars of mild steel rounds. Unless otherwise mentioned the rates for RCC slab shall include cost of concrete, centering and shuttering charges, vibration charges, rounding of corners, curing and finishing etc., complete. Expansion joints in reinforced cement slabs shall be as per TNBP 30.

The ceiling should be finished as per Clause 30 of TNBP. No extra payment shall be made towards cost of ceiling plaster necessitated on account of defective centering material used or poor workmanship.

The top of roof slab shall be finished with weathering course treatment if so specified. The weathering course work shall conform to TNBP 44-HJ and consist of concrete with broken brick in neat slacked lime of specified thickness finished with one course of pressed split tiles/ pressed tiles of specified thickness and size as described in the bill of quantities.

**(B) Roofing and Side Cladding with A.C. sheets:**

The A.C. sheets shall be of specified and approved quality and shall conform to IS 459- 1962 in all respects. The sheet shall be laid with the smooth side upwards and with a minimum end lap of 15cm. and for every flatter slopes this should be 20cm. The laying operation shall include scaffolding works involved. Sheets shall be secured to the purlins by means of 8mm galvanized

iron J or L hook bolts and nuts. The grip of the hook bolt on the side of the purlin shall be not less than 25mm. Each bolt shall have a bitumen washer and galvanized iron washer placed over the sheet before the nuts are screwed down from above. Hole for hook bolts etc., shall be drilled and not punched in the ridges of the corrugations in the exact positions. The diameter of these holes shall be 1.5 mm more than the diameter of the fixing bolts. The payment will be on square meter basis of the laid area.

**xiii. A.C. Rain Water Pipes**

The pipes shall be of standard quality conforming to IS 1628. These shall be straight, true smooth and regular in thickness. They shall be free from cracks and other flaws. The supply shall include all necessary pipe fittings and accessories.

All pipes shall be fixed to wall or columns by standard M.S butt holder clamps of approved make. The spigot of the upper pipe shall be properly fitted into the socket of the lower pipe, such that there is uniform annular space for filling with the jointing material. One third depth of this annular space is to be filled with spun yarn soaked in bitumen of approved quality and properly pressed with caulking tool. The remaining two, third depth of the joint is to be filled with Cement Mortar 1:2 (1 Cement: 2 coarse sand) and shall be pressed with caulking tool and finished smooth at the top at an angle of 45 Deg. sloping up.

The rate shall include supplying and fixing of pipes with specials and accessories, including sizing as required, jointing, testing, cutting of walls and making good necessary scaffolding etc., complete.

**xiv. Flooring:**

Flooring shall consist of a base course of cement concrete of specified thickness and proportion laid over the compacted earth or sand filling as specified and a finishing layer of concrete, mosaic, glazed tiles or any other material as specified to be laid. Flooring work for Factory shop floors as well as mosaic flooring shall be done as per the special specifications.

The bed flooring shall be prepared either level or sloped as per relevant drawing or as instructed by the Engineer-in-charge. Filling in basement with earth or sand shall be in accordance with TNBP 25. On the prepared bed, cement concrete of specified mix and thickness shall be laid and well consolidated.

**A. Ellis pattern, 1st Sort Flooring**

On the clean wet surface of the concrete base before it has set, will be laid a layer of cement concrete to give a finished depth of 20/25 mm over the base concrete. The cement concrete will be of 1:3 proportion (one cement and 3 hard broken stone chippings 3 to 10 mm Size). To make a colored floor red oxide iron powder or other approved material should be mixed with cement at the rate 10% of the weight of cement or as directed by the Engineer-in-charge. Ellis pattern flooring shall be done as described under clause 41-G of TNBP.

**B. Glazed Tile Flooring**

The tiles shall be of ceramic white or colored and of specified dimensions as described in the schedule item. The top surface of tiles shall be glazed with a neat finish of uniform color and texture and free from flaws, cracks, craze, specks or other imperfections. Tiles shall be true to shape with straight edges, non-absorbing and non – fading. Samples of tiles together with

manufacturer's literature shall be submitted to the Engineer-in-charge for approval. Tiles shall conform to IS 177 latest.

Over the prepared surface of the floor a bedding layer of Cement Mortar (1:3) of specified thickness shall be laid-in-proper level and slope using screed patterns. The bedding layer shall be deeply scratched while it is set. A mortar set bed of 6mm thickness in cement lime mortar 1:1:3 (one cement one lime putty and three sand), shall be laid over the bedding layer. After mortar setting, bed has been leveled, a skin of neat cement shall be troweled to the mortar setting bed immediately before the tiles are set. As soon as the mortar setting bed has sufficiently hardened, all tiles shall be finally secured in place and gently beaten in and finished surface brought to desired level. When grouting the glazed tiles, special care shall be taken to prevent scratching of the glazed surface. Joints shall be pointed with white or colored cement to match the tile surface and cured. No joint shall be more than 1.5 mm thick.

### xv. White Washing and Color Washing

White washing and color washing shall be done as per clauses 63 and 64 of TNBP. The surface shall be thoroughly cleaned off mortar drops and foreign matter. All patching must be scraped properly. The white washing shall be done from pure shell lime/ Janathacem. Samples of lime shall be got approved by the Engineer-in-charge. The wash shall be applied with a brush, the coats being laid on vertically and horizontally alternatively, each coat being allowed to dry before next coat is applied. For color washing the desired shade shall be obtained by mixing approved quantity of coloring matter or distemper with shell lime solution and applied as per white. The contractor shall take every precaution to prevent white wash being splashed on wall, floor and other places and articles not to be white washed. No color wash shall be done unless a sample pattern of the mixed color has been approved by the Engineer-in-charge. The rates shall be inclusive of scaffolding charges, cost of ladder etc.,

### xvi. Painting

All painting work shall be done in accordance with TNBP-66 and the relevant Indian Standard Specifications. Paints, varnishes, cement paints etc., shall be of the highest grade and product of well-known approved manufacturer and shall be delivered to site in original sealed containers. It is desired that material of one manufacturer only shall be used as far as possible. Colors shall be uniform and nonfading. Samples of all colors selected shall be submitted to the Engineer in charge for approval before bulk purchase is made. All finished work shall match corresponding samples kept with the Engineer.

**Preparation of Surface:**

Before painting wooden surfaces, protruding timber fibers shall be removed and nail marks shall be covered with putty. The surface shall be thoroughly cleaned and sand prepared. In case of steel work, it shall be scraped, well brushed and cleaned free of rust, scale dirt. Base preparation for painting concrete, masonry and plastered surfaces shall be carried out as per IS 2395 – Part I. Before actually proceeding with the work of painting the concrete, masonry and plastered surfaces, it shall be verified that the surfaces are completely dry, free from efflorescence and alkaline effect.

**Application:**

The primer shall be applied with brushes and spread as evenly and as smooth as possible. For steel work a priming coat of Red Oxide/ Zinc Chromate paint shall be applied. Painting shall be done by skilled laborers in a work-man like manner. All coats shall be of proper consistency and shall be well brushed out, so that no brush marks are visible. The under coating should be nearest to the specified color of the finishing coat. Unless otherwise specified ready mixed synthetic enamel paints shall be used for painting, wood and steel work. Under coats should be completely dry before finishing coat is taken up. Priming coat and under coat shall be rubbed with sand paper and dusted clean. The finished coat of approved paint shall then be applied.

### xvii. Cement Painting

Cement Paint solution shall be applied to the surface with hair brushes in a number of coats to get uniform finish. After the first coat of paints has hardened, it shall be cured with water at least for 24 hours. The surface shall be wetted again before the application of the second coat. At least 24 hours should lapse between the two coats, number of coats shall be as specified in the schedule of quantities. It shall be kept damp at least for seven days.

### xviii. French Polish

French polish to be used shall comply with IS 348. Polishing shall be obtained by dissolving 1 lbs., of shellac in one gallon of methylated spirit without applying any source of heat. After the shellac has dissolved ¼ lbs. of cobalt, ¼ lbs. of lobano and 0.4 oz. of crystals of desired pigment shall be added. The solution shall be applied with a pad of fine muslin cloth tied as per general practice. The pad shall be dipped into the solution and wrung with fingers and be rubbed hard on the surface in this way, the first coat is to be given after this gets dried up, the successive coats shall be given in the same fashion till the mirror like surface is obtained. The wood to be polished shall be first applied with a filler composed of 1.25 Kg. of whiting mixed with one liter of methylated spirit and then sand papered when dry. The finished surface shall have uniform texture and gloss. Approved transparent sealer shall only be used in base preparation.

## SPECIAL SPECIFICATION FOR CONTROLLED CONCRETE

### A. PROPORTIONING MIX:

The proportion of aggregate, Cement and water to be used for controlled concrete shall be designed by preliminary tests of the material to be actually used to obtain the densest workable concrete requiring the minimum quantity of cement paste for binding the material to give the required strength. However, the maximum total quantity of aggregate by weight per 50 kg. of cement shall not normally exceed 450kg All proportions shall be by weight. However, water may be added by weight or volume.

### B. MIX DESIGN:

Immediately upon the receipt of the award of the contract, the Contractor shall inform the Engineer-in-charge the exact location of the sources of material which he proposes to use and get the material approved. The mix with the actual approved material to be used shall be got designed by the Contractor in an approved laboratory chosen by BHEL and got approved by the Engineer-in-charge. These proportions shall be used so long as the material continue to be of the same quality and from the same sources. If during the progress of work, the Contractor wishes to change the material, the proportions shall be fixed on the basis of fresh preliminary tests to give the required strength. No change of material shall be allowed unless fresh tests with new material show satisfactory results.

### C. STRENGTH REQUIREMENTS OF CONCRETE:

Controlled concrete shall be in the following grades, M 15, M 20, M 25, M 30, M 35 & M 40. The concrete mix shall be designed to produce the grade of concrete having the required workability and characteristic strength not less than the appropriate values (as per I.S. 456) as given in table below:

| Sl. No | Grade of. Concrete | Specified Characteristic Cube Strength | |
|---|---|---|---|
| | | Preliminary test N/mm2 | Works test N/mm2 |
| 1. | M 15 | 20 | 15 |
| 2. | M 20 | 26 | 20 |
| 3. | M 25 | 32 | 25 |
| 4. | M 30 | 38 | 30 |
| 5. | M 35 | 44 | 35 |
| 6. | M 40 | 50 | 40 |

### D. WORKABILITY OF CONCRETE:

The proportions chosen shall be such that the concrete is of adequate workability for the conditions prevailing on the work in question, and shall be properly compacted. Water shall be added to the mixer to give the required workability. The water content of each batch shall be adjusted as necessary to maintain the required workability with simultaneous adjustment of cement concrete such that the water cement ratio is not changed. The workability tests shall be carried out in accordance with IS: 1199 - Latest, “Methods of sampling and analysis".

Workability of concrete shall be controlled by direct measurement of water content, making allowance for any surface water in the fine and coarse aggregates. Allowance shall be made for surface water present in the aggregate when computing the water content. Surface water shall be determined by one of the field methods described in IS: 2386, Part III.

### E. CONSISTENCY AND SLUMP:

The concrete shall have a consistency such that it will be workable in the required position. It shall be of such consistency that when properly vibrated it will flow around reinforcing steel and all embedded parts. The slump for concrete as determined by slump tests as per Indian Standard 456 (latest edition) shall not exceed the maximum slumps indicated below for each type of construction as approved by the Engineer-in-charge.

| Workability | Slump in mm | | Type of Construction |
|---|---|---|---|
| | Min | Max | |
| Medium | 40 | 80 | All RCC works |

The contractor shall not place concrete having a slump outside the limits specified without the approval of the Engineer-in-charge.

At least one slump test shall be made for every compressive strength test carried out. More frequent tests shall be made if there is a distinct change in job conditions or if required by the Engineer-in-charge.

## F. TESTS:

Test shall conform to the specifications laid down in IS: 456. These tests shall be got done in an approved laboratory and in accordance with IS: 516 - Latest at the cost of the Contractor (for making necessary cube moulds, transporting the cubes to the Laboratory and all other incidental etc.). The test fees for the cubes shall be borne by the contractor. In order to ensure proper quality control sampling of the concrete of each specification placed on any day in work shall be done in accordance with the following table.

| **Quantity of Concrete in work** | **Total Number of samples (each sample to consist of 6 test cubes)** |
|---|---|
| Upto 5.00 Cu.m. | 1 |
| Greater than 5.00 Cu.m. and less than 15.00 Cu.m | 2 |
| Greater than 15.00 Cu.m. and less than 30.00 Cu.m | 3 |
| Greater than 30.00 Cu.m. and less than 50.00 Cu.m. | 4 |
| Greater than 50.00 Cu.m | 4+one additional sample for each additional 50 Cu.m. or part thereof. |

The sampling shall be spread as evenly as possible throughout the day. When wide changes in weather conditions occur during concreting, additional samples may be taken as desired by Engineer-in-charge. Each sample shall consist of 6 cubes of 15 x 15 x 15 cm concrete. Test cubes shall be kept immersed in water until required for test which will be usually at 7 days and minimum crushing strength of not less than the following:

| **Grade of Concrete** | **M15** | **M20** | **M25** | **M30** | **M35** | **M40** |
|---|---|---|---|---|---|---|
| Crushing strength in N/mm2 at the end of **7 days** | 10 | 13.5 | 17 | 20 | 23.5 | 27 |
| Crushing strength in N/mm2 at the end of **28 days** | 15 | 20 | 25 | 30 | 35 | 40 |

All costs connected with the preliminary tests for proportioning the mix, sampling, curing, handling, other incidental charges, labor charges and cost of material shall be borne entirely by the Contractor. Testing charges for cubes (work tests) shall be borne by contractor. Such testing shall normally be conducted at the BHEL Central Laboratory or any other approved laboratory as directed by the Engineer-in-charge.

All samples for tests shall be taken in the presence of Engineer-in-charge and the Contractor or his authorized agents.

A set of six specimens from random mixer batches, shall constitute a test, three being tested for 7 days and three being tested for 28 days' strength.

The strength test result shall be the average strength of the three companion test specimens, tested at 28 days, except that, if one specimen in a test shows manifest evidence of improper sampling, moulding or testing, the result shall be discarded and the remaining two strengths averaged.

Normally, 7 days and 28 days' tests shall be made on specimens. For any mix, a correlation between 7 days and 28 days' strengths may be made in the laboratory. Soon after a job starts, a similar correlation will be evolved for samples of a concrete taken from the mixer. After that correlation has been established, the results of the 7 days' test may be used as an indicator of the compressive strength which should be expected at 28 days, provided such results are consistent, if 7 days' tests shown compressive strength that are too low, corrective measures shall be taken at once, at the Engineer's direction, without waiting for the results of the 28 days' tests.

Each class of concrete shall meet the following strength requirements:

The average of any three consecutive strength tests shall have a value equal to or greater than the specified strength subject to the condition that only one out of three consecutive tests may give a value less than the specified strength but this shall not be less than 90% of the specified strength.

In the event that concrete tested in accordance with the requirements of this specification, fails to meet the requirement, the Engineer shall have the right to require any one or all the following.

1. Changes in the concrete mix proportions for the remaining work.
2. Curing and testing of the concrete represented by the tests which failed.
3. **Replacement of any such portions of the structure. (No payment for dismantled concrete, associated from worker or reinforcement shall be made. Embedded fixtures, reinforcement and adjoining structures, damaged during dismantling shall be made good by the Contractor at his own expense).**
4. Extended curing of the concrete represented by the specimen.
5. The contractor shall carry out all such measures as directed at his own expense.

Load tests of structural members may be required by the Engineer when the strength of the job control tests falls below the required strength and is not acceptable as per "Acceptance Criteria" stated earlier. The entire cost of the load test shall be borne by the Contractor. If the load testing is decided by the Engineer, the member under consideration shall be subjected to a superimposed load equal to one and quarter (1.25) times the specified superimposed load used for design and this load shall be maintained for a period of 24 hours before removal.

The detailed procedure of the test shall be decided by the Engineer-in-charge.

If, within 24 hours of the removal of the load, the structure does not show a recovery of at least 75 percent of the deflection after the 24 hours under load, the test should be repeated. The structure should be considered to have failed to pass the test if the recovery after the second test is not at least 80 percent of the maximum deflection occurring during the second test.

If the member shows evident failure, such changes as are necessary to make the structure adequately strong, shall be made by the contractor free of cost to the Department. If on the other hand, the failure becomes apparent, the Engineer under special circumstances, can retain the portion of the structure under test, provided suitable strengthening and or load dispersed arrangement is feasible. Cost of such strengthening or load dispersed arrangement shall be borne by the Contractor.

Load test shall not be made until the expiry of 56 days of effective hardening of the concrete.

If a portion of the structure is found to be unacceptable it shall be dismantled and replaced by a fresh structure as per specification. The cost of such dismantling and reconstruction should be borne by the Contractor.

The proportions of cement, fine aggregate, coarse aggregate and water necessary to produce a concrete mix which will fulfill the requirements of this specification for each grade of concrete shall be determined on the basis of trial mixes conducted with the samples of the material to be used in the work by the Engineer-in-charge in the field Laboratory.

All mix design and test data and results shall be maintained as part of the record of the contract and shall be signed by the Engineer-in-charge and the Contractor. A register showing such record shall be maintained at site of work as shown below.

NAME OF WORK:

| Sl. No. | Date & Time | Sample No. | No. of Cubes marks | Identifi-cation | Proportions of mix | Description of portion of work represented by sample and quantity of concrete represented by the sample | Initials of S.O/A.E. in whose presence sample is taken | Date of test |
|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

| 7 days test result of each cube | Average 7 days strength | Standard 7 days strength | Date of test cube | 28 days last result of each cube | Average 28 days strength | Standard 28 days strength | Remarks (the reference Nos. of test report should also be recorded here) | Review and Remarks by Asst. Engineer | Review and Remarks by Execu-tive Engineer |
|---|---|---|---|---|---|---|---|---|---|
| (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |

# STRUCTURAL STEEL WORKS

1. Broadly, the work under this contract comprises of conveying of raw structural steel sections (issued at free of cost by BHEL) from Contractor's Store to site fabrication shop, fabrication of steel work at the site fabrication shop including one priming coat of Zinc Chromate / red oxide primer, transportation of fabricated steel structures to the erection site including loading, unloading, leading, stacking as required and all handling costs, erection of steel work over prepared foundations or on RCC brackets as the case may be and painting of steel work two coats with approved synthetic enamel ready mixed paint or as specified in the Bill of quantities carrying from Contractor's stores and erection of cloaking items etc. complete.

2. The Contractor may also be required to supply some raw structural steel sections also as required for this work in accordance with the latest editions of the Indian Standard Specifications noted below:-
   IS 2062 & IS 1977. He will be required to submit the necessary test certificates for the materials so supplied for use on this work.

3. The detailed fabrication drawings as approved for fabrication will be the responsibility of BHEL. The Detailed Shop Drawings will be supplied by BHEL to the contractor progressively to suit the fabrication and erection sequence. The Contractor shall not depart from the drawings approved by BHEL without the written permission of the Engineer-in-charge.

4. Based on the detailed shop Drawings approved by the BHEL the Contractor shall prepare at his cost, the Drawing Office Despatch Lists (abbreviated as D.O.D.L.'s) and get them approved by BHEL. These shall contain the drawing number, the designation of items, number of pieces, based on the section weights as adopted for supply of raw materials without deduction for bolt holes and skew cuts. The DOD Lists shall form the basis for payment.

5. Rate quoted against item(s) of the Bill of Quantities cover the fabrication of all items involved and shall Therefore be an Overall-average-rate. The actual quantities for payment shall be based on the drawing office despatch lists to be prepared by the Contractor and got approved by BHEL as aforesaid.

6. All Civil works like preparation of foundations for columns, including embedding of holding down bolts etc., also have to be carried out and hence included in the present enquiry. All works shall be performed and completed in a thoroughly workmen like manner and the contractor shall follow the best modern practice in the manufacture of high grade structures not withstanding any omission in the specifications.

7.
   a) Fabrication shall generally be in accordance with IS 800 (latest issue) entitled "Code of practice for use of structural steel in general building constructions". Welding shall be in accordance with IS 816 entitled "Code of practice for use of metal arc welding for general construction in mild steel". The contractor shall provide necessary splicing as approved by the Engineer-in-charge, to suit the available lengths of raw steel, and no extra amount shall be paid on this account. Any specifications not covered by the Relevant Indian Standard Codes of practice shall be in accordance with the relevant BS or in its absence in accordance with the well-established standard Engineering practice to be acceptable to BHEL.

b) Under the contract, site fabrication is to be adopted for which a suitable site near and inside the factory premises will be made available by BHEL at free of ground rent. The Contractor shall provide all plant and equipments, tools covered sheds and other facilities required for site fabrication work at his own cost.

c) The Contractor shall take into consideration the existing foundation structures and make necessary provisions in the fabricated components with the approval of the Engineer-in-charge so that proper alignment, vertically and easy connection / erection of structures is ensured.

8. All fabricated steel work shall be given one coat of Red Oxide / Zinc Chromate primer conforming to Relevant IS code before erection. All fabricated steel work shall be match marked suitably to facilitate their erection in position without any difficulty.

9. Materials supplied by the contractor shall be in standard / random sizes / lengths. Hence the Contractor will be required to supply extra materials to cover conversion, wastage, alteration etc. He shall do so without any claim for extra payment, whatsoever on this account.

10. All breakages after the **Al. Zinc Alloy Coated Steel Sheets** materials brought inside site by the contractor shall be to Contractor's account. As far as possible partially broken **Al. Zinc Alloy Coated Steel Sheets** materials should be cut suitably and used for smaller sizes with the approval of BHEL, without any extra claim.
11. The Contractor should prepare in advance cutting lists for materials so as to obtain efficient and economical use of all types of materials including steel.

12. Normally no night work will be permitted. But in case of emergency and urgent in nature where night work is warranted, the Contractor shall arrange for night works providing all facilities including illumination at his own cost, after obtaining written permission from Engineer-in-charge under intimation to Security and Safety Departments.

13. The Contractor shall closely scrutinize all the drawings for the work issued by this organization and bring to the notice of the Engineer-in-charge any discrepancies / omissions noticed in the drawings before undertaking the actual work.

14. M/s BHEL through their duly authorized representative shall have all reasonable times access to the Contractor's premises or works and shall have the power at all reasonable times to inspect any portion of the work or examine the materials and workmanship of the structures during their manufacture and test. The Contractor shall give notice in writing to the inspecting Engineer of BHEL when the materials to be supplied are ready for inspection and test, no materials shall be used on the fabrication work until the inspecting Engineer has certified in writing that such materials have been inspected and approved by him. The contractor shall provide at his own cost all facilities for the required tests on fabricated structures as required by the Engineer-in-charge. Defective fabrication structures shall be made good / replaced by the Contractor at his own cost to the full satisfaction of BHEL. This also applies to loss or damage of raw materials, if special tests only will be borne by BHEL.

15. Weekly progress reports shall be submitted giving in detail the position of receipt of raw materials, progress of fabrication and completion of fabricated structures etc. The contractor shall submit at such times as may be requested by the Engineer-in-charge, schedules showing the programme and order in which the Contractor proposes to carryout the fabrication and erection works with dates and estimated completion times for various

portions of the work. Such schedules shall be approved by the Engineer-in-charge prior to the starting of the relevant works.

16. BHEL would expect the contractor to take up simultaneously wherever possible both fabrication and erection of structures especially where a good deal of assembly work, which is in fact a continuation of the fabrication work, is required to be done at site. The painting and cloaking items of works, wherever possible, should be done simultaneously to save time. The Contractor may with the prior approval of BHEL sublet the work. The main contractor shall however, be responsible for all works executed on his behalf by the sub-contractors.

**17. SETTING OUT AND ERECTING OF STEEL WORK:**

a) Erection of steel work shall generally be in accordance with the provision of IS 800 (Code of practice for use of structural steel in General Constructions).

b) Site assembly of members on the ground by welding, bolting or otherwise as specified in shall be inspected thoroughly by the Engineer-in-charge, or his authorized representative and approved before erection.

c) All equipment's, facilities and consumables for site fabrication as well as erection plant requirement, etc., such as derricks, cranes, lifting tackles, wire ropes, chain pulley blocks, jacks, winches etc. as necessary shall be arranged for by the Contractor at his own cost. Care shall be taken to see that all equipment's, tools and tackles and wire ropes etc. in use are always in good working conditions and fit for use. For all the tools and plants periodical calibration certificate from approved agency should be obtained. **The above lists should be enclosed along with the tender.**

d) Frames shall be lifted at such points that they will not buckle or deform. Trusses shall be lifted only at nodes. Temporary bracing shall, if required, be provided at no extra cost, to relieve erection stresses.

e) In the case of trusses and similar roof structures all or at least a majority of the purlins and wind bracings, shall be erected side by side with the erection of these structures. Columns shall be erected true to plumb, (no screed bars provided and fixed by the Contractor over the prepared pedestals), true to center line, level and gauge of traveling cranes. Alignment of the columns, crane girders and rails shall be done very carefully using high precision survey instruments and necessary adjustments made to suit actual requirements. **A list of survey instruments proposed to be used shall be furnished in the tender.**

f) All damages to the steel work caused during the transit or otherwise shall be made good to the full satisfaction of BHEL at Contractor's own cost, before erection.

It shall be the sole responsibility of the Contractor to ensure accuracy of level, plumb, span and alignment of steel work before erection of other components.

**18. PAINTING AFTER ERECTION:**

a) All steel work shall be given two coats of approved brands of first quality synthetic enamel ready mixed paint after erection (over the priming coat already provided). Painting shall be done as per IS 800 **Latest**. The shade, make, quality and other particulars of the paint proposed to be used, shall be subject to prior approval by BHEL.

b) It is the responsibility of the Contractor to procure sufficient quantities of the approved paints well in advance to ensure their availability in time.

**19. TIME ALLOWED (Period of Contract)**

The following programme should be strictly followed.

| | | |
|---|---|---|
| (i) | Fabrication of structural steel works to be completed | Progressively from the date of award of work |
| (ii) | Erection, painting of the above structures, supply and erection of cloaking items etc. to be completed | Progressively from the date on which completion of civil work and the readiness of site declared as fit for erection |

20. The contractor will have to provide and fix the necessary screed bars etc. at his own cost in proper line, level and position to facilitate the erection work. Further, the contractor should lay and maintain necessary temporary approaches within his working areas at his own cost to facilitate his work and for easy movement of vehicles, cranes etc. deployed on the work. Only reasonable areas will be provided by BHEL.

21. Till the expiry of the maintenance period after the completion of the entire contract work and handing over to BHEL, the contractor should retain the minimum equipments and staff required and should carry out the maintenance works with the least possible interference to the routine works of the new shop. Till the expiry of the maintenance period the contractor shall be responsible for all damages occurring due to any fault on his part or on the part of his workmen, sub-contractor or other agencies engaged by him.

22. BHEL shall have the right to take possession of or use any completed or partially completed part of the work. Such possession or use shall not be deemed to be acceptance of any work not in accordance with the contract.

23. The contractor shall observe all safety regulations and take necessary safety precautions as called for under the Factories Act or other relevant statute as applicable including the use of safety boots, safety belts, helmets and other equipments and accessories for ensuring safe execution of the contract and freedom from accidents.

24. The rates quoted in the Bill of Quantities of the tender for the fabrication item shall cover also the cost of preparation of DODL and similar incidental items. Fabrication works shall be undertaken only after the issue of approval of shop drawings.

25. The Contractor should co-operate with other contractors who may be executing their work in the same area in order to facilitate efficient execution of the entire project work in this area.

26. BHEL is registered as an indentor for materials on rate contract with DGS & D. Tenderers who are on DGS & D List of rate contracts should mention their rate contract number and furnish a copy of the rate contract document with the tender.

27. The Guarantee / Warranty period for this contract shall be **SIX MONTHS** from the date of completion of the entire work and handing over to BHEL. During this period the successful

tenderer shall be at site on his own expense for replacement or repair of all defects arising out of faulty materials and / or workmanship.

28. Further particulars relating to design and fabrication and clarifications, if any, may be obtained on reference to the Engineer-in-charge / Civil Factory /PPPU /BHEL, Thirumayam or his nominee.

29. The contractor shall engage a level-II NDT Inspector for inspection of NDT works.

30. Inspection will be done by BHEL Staff / Agencies appointed by BHEL for the works covered in the tender.

31. Painting, DFT of primer should be 25 micron.

32. Finish coat Painting, DFT 20 micron for each coat. Paint shall be of first quality product of approved brand as per list of approved brands for materials enclosed in the price bid.

33. Pre heating and post heating required shall be as per AWS (latest).

34. Welder qualification is to be done before commencement of the work and approved & qualified welder only shall be engaged in the work. Necessary testing charges shall be borne by the contractor.

35. For the supply of material the manufacturer's test certificate is to be produced.

**GENERAL QUALITY CONTROL PROCEDURE FOR STRUCTURAL STEEL WORKS**

The following quality standards are required to be maintained in all the structural steel fabrication components.

1. All the raw materials will be generally confirm to IS 2062-2011 or equivalent.

   The welding electrodes shall be kept in oven only.

   Submerged Arc welding has to be done for crane girder flange to web joints and built up column as per the details given in the approved drawings.

   E7018 Welding electrode rods shall be used where the thickness of plates are 20mm and more and as specified in the drawings issued.

   All the other weld in crane girder and butt welds in columns and beams shall be done with E 7018 welding electrodes.

   All the welds in Nodal points of trusses and lattice girders shall be done with E 7018 welding electrodes.

   Pre heating shall be done for plates having thickness 25mm & more and the temperature shall be maintained by checking with thermal chalk, as per quality standards.

   All erection welding, of any component shall be done using E 7018 Welding Electrode.

100% visual check shall be carried out for raw materials and welding on all components and the welding areas during inspection, to be tested for LPI / MPI / UT / Radiography / PWHT as provided in the Quality Control Procedure.

Base plate to column shall be perfectly checked for perpendicularity.

All the components shall be checked for dimension at fit-up stage itself before the commencement of welding operation.

Contractor shall buy &use Black Hex. bolts and nuts as per IS Specifications as detailed below for fabrication & erection of steel structures.

| | | |
|---|---|---|
| Black Hex Bolts | IS 1363 - 2002 Part – I | (Class 5.6/5.8) |
| Black Hex Nuts | IS 1363 - 2002 Part - III | |
| Plain MS washer | IS 2016 - 1967 (Reaffirmed 2021) | |
| Taper washer for beams | IS 5374 - 1975 (Reaffirmed 2021) | |
| Taper washer for channel | IS 5372 - 1975 (Reaffirmed 2021) | |
| Spring washer | IS 3063 - 1964 (Reaffirmed 2021) | |

Contractor shall buy & use the following welding consumables as detailed below:

| SMAW No. | Electrodes | Manufacturer |
|---|---|---|
| 1. | E 6013 & E 7018 | D & H Secheron |
| 2. | E 6013 & E 7018 | ESAB India Ltd. |
| 3. | E 6013 & E 7018 | Modi Arc Electrode Co. |
| 4. | E 6013 & E 7018 | D & H Welding Electrode (I) Ltd. |
| 5. | E 6013 & E 7018 | MantekElectrods (P) Ltd. |
| 6. | E 6013 & E 7018 | Ador Welding Ltd. |
| 7. | E 6013 & E 7018 | Varun Electrodes Pvt. Ltd. |

SAW Wire

| Sl. No. | Brand | Manufacturer |
|---|---|---|
| 1. | AUTO melt Grade A | Ador Welding |
| 2. | Mantek Grade A | Mantek Wires |
| 3. | Metaspool S1 dia. 4mm | Precision Wires |
| 4. | OK Aut Rod 12.08 L | ESAB India Ltd. |

**Flux**

| Sl. No. | Brand | Manufacturer |
|---|---|---|
| 1. | Super S41 | Super ElecInds |

| | | |
|---|---|---|
| 2. | Mantek 22 | Mantek Welded Flux Co. |
| 3. | RMH Auto Weld Grade 1 | RMH Chemicals |
| 4. | SWP 40 T | Super Weld Prod |

**GMAW ( Co2)**

| Electrode | Brand | Manufacturer |
|---|---|---|
| ER70S-6 Co2 wire | Automig-1 | Ador Welding Ltd. |
| ER70S-6 Co2 wire | Esab MW1 | Esab India Ltd., Chennai |
| ER70S-6 Co2 wire | MantekMig | MantekWiress |
| ER70S-6 Co2 wire | Nouvarc | Nouveax Industries (P) Ltd., Kangayam |
| ER70S-6 Co2 wire | Autofil-6 | Voltrac Electrode Pvt. Ltd., Tirupathi. |
| ER70S-6 Co2 wire | Prima Mig/Mag | Varun Electrodes Pvt. Ltd., Panipat. |

Rolled steel sections of depth greater than 450mm need to be visually checked for lamination before the process of fabrication. The doubtful area to be tested for LPI and if lamination is found UT Test to be carried-out.

The welding code of practice, procedures, specifications for electrodes / consumables etc., for manual welding and auto welding shall conform to AWS D1.1/D1.1M:2006 (Latest) and as per the QCP issued by BHEL component-wise.

All the fabrication and erection works shall have to be executed as per the QCP issued by BHEL.

All the fabrication and erection works will be inspected for Quality Control by a third party inspection agency as fixed by BHEL.

## GENERAL QUALITY CONTROL PROCEDURE FOR STRUCTURAL STEEL WORKS

The following quality standards are required to be maintained in all the structural steel fabrication components.

1. All the raw material will be generally conforming to IS 2062-latest or equivalent.
2. The welding electrodes shall be kept in oven only.
3. Submerged Arc welding has to be done for crane girder flange to web joints and built up column as per the details given in the approved drawings.
4. E7018 Welding electrode rods shall be used where the thickness of plates is 20mm and more and as specified in the drawings issued.
5. All the other weld in crane girder and butt welds in columns and beams shall be done with E 7018 welding electrodes.
6. All the welds in Nodal points of trusses and lattice girders shall be done with E 7018 welding electrodes.
7. Pre heating shall be done for plates having thickness 25mm & more and the temperature shall be maintained by checking with thermal chalk, as per quality standards.
8. All erection welding, of any component shall be done using E 7018 Welding Electrode.
9. 100% visual check shall be carried out for raw material and welding on all components and the welding areas during inspection, to be tested for LPI/ MPI/ UT/ Radiography/ PWHT as provided in the Quality Control Procedure.
10. Base plate to column shall be perfectly checked for perpendicularity.
11. All the components shall be checked for dimension at fit-up stage itself before the commencement of welding operation.
12. Contractor shall buy & use Black Hex. bolts and nuts as per IS Specifications as detailed below for fabrication & erection of steel structures.
    a) Black Hex Bolts IS 1363 - 1984 Part – I (Class 5.6/5.8)
    b) Black Hex Nuts IS 1363 - 1984 Part - III
    c) Plain MS washer IS 2016 - 1975
    d) Taper washer for beams IS 5274 - 1975
    e) Taper washer for channel IS 5372 - 1975
    f) Spring washer IS 3063 - 1964
13. Contractor shall buy & use the following welding consumables as detailed below:

| a) | **SMAW** | **Electrodes** | **Manufacturer** |
|---|---|---|---|
| | | No. | |
| | 1. | E 6013 & E 7018 | D & H Secheron |
| | 2. | E 6013 & E 7018 | ESAB India Ltd. |
| | 3. | E 6013 & E 7018 | Modi Arc Electrode Co. |
| | 4. | E 6013 & E 7018 | D & H Welding Electrode (I) Ltd. |
| | 5. | E 6013 & E 7018 | MantekElectrods (P) Ltd. |
| | 6. | E 6013 & E 7018 | Ador Welding Ltd. |
| | 7. | E 6013 & E 7018 | Varun Electrodes Pvt. Ltd. |

b) SAW Wire

| Sl.No. | Brand | Manufacturer |
|---|---|---|
| 1. | AUTO melt Grade A | Ador Welding |
| 2. | Mantek Grade A | Mantek Wires |
| 3. | Metaspool S1 dia. 4mm | Precision Wires |
| 4. | OK Aut Rod 12.08 L | ESAB India Ltd. |

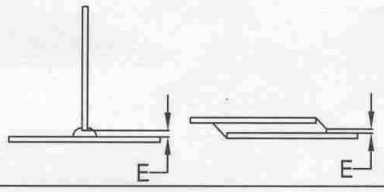
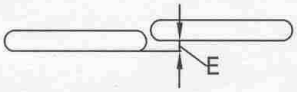
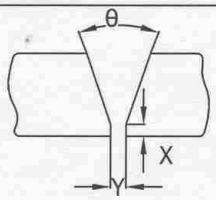
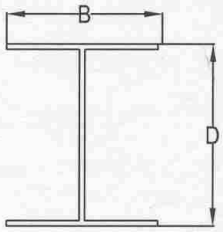
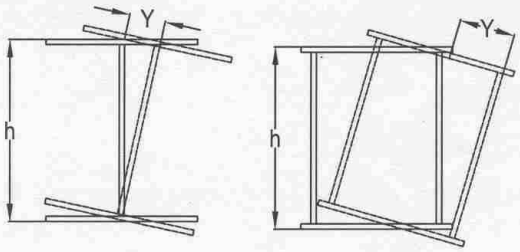
c) Flux

| Sl.No. | Brand | Manufacturer |
|---|---|---|
| 1. | Super S41 | Super Elec Inds |
| 2. | Mantek 22 | Mantek Welded Flux Co. |
| 3. | RMH Auto Weld Grade 1 | RMH Chemicals |
| 4. | SWP 40 T | Super Weld Prod |

d) GMAW (CO2)

| Electrode | Brand | Manufacturer |
|---|---|---|
| ER70S-6 Co2 WIRE | Automig-1 | Ador Welding Ltd. |
| ER70S-6 Co2 WIRE | Esab MW1 | Esab India Ltd., Chennai |
| ER70S-6 Co2 WIRE | MantekMig | MantekWiress |
| ER70S-6 Co2 WIRE | Nouvarc | Nouveax Industries (P) Ltd., Kangayam |
| ER70S-6 Co2 WIRE | Autofil-6 | Voltrac Electrode Pvt. Ltd., Tirupathi. |
| ER70S-6 Co2 WIRE | Prima Mig/Mag | Varun Electrodes Pvt. Ltd., Panipat. |

14. Rolled steel sections of depth greater than 450mm need to be visually checked for lamination before the process of fabrication. The doubtful area is to be tested and if lamination is found UT Test to be carried-out.
15. The welding code of practice, procedures, specifications for electrodes/ consumables etc., for manual welding and auto welding shall conform to AWS D1.1/D1.1M:2006 (Latest) and as per the component-wise QCP issued by BHEL.
16. All the fabrication and erection works shall have to be executed as per the QCP approved by BHEL.
17. All the fabrication and erection works will be inspected for Quality Control by a third party inspection agency as fixed by BHEL.

| DESIGNATION | DETAIL OF SKETCH | PERMISSIBLE DEVIATION |
|---|---|---|
| FILLET WELD FIT UP | FIG:2   | MAX.LOCALISED GAP =1.5mm |
| BUTT WELD | FIG:3   | CUT OF ALIGNMENT = 3 mm MAX |
| FIT UP | FIG:4   | FOR ,X ,Y, θ REFER =1.2 &3 OF CL 7:4:3 |
| SECTION SIZE | FIG:5   | D:<br>UPTO 1M : ± 3mm<br>1M TO 2M : ± 4.5mm<br>OVER 2M : + 7.5 mm<br>- 4.5mm<br>B:±3mm |
| TWIST ON SECTION ( Y ) |   | Y=0.005h<br>10 mm MAX |

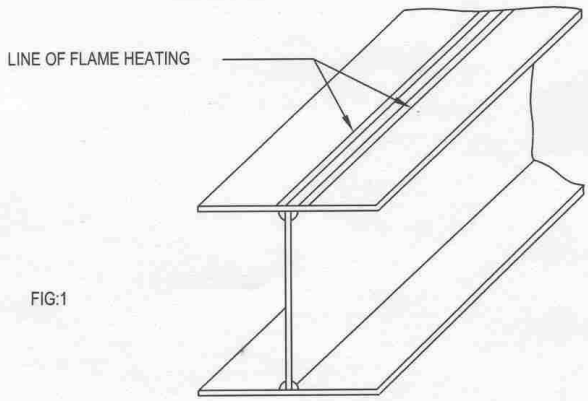
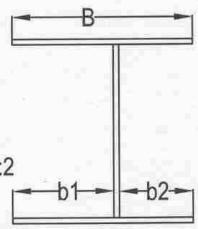
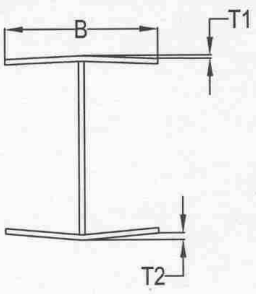
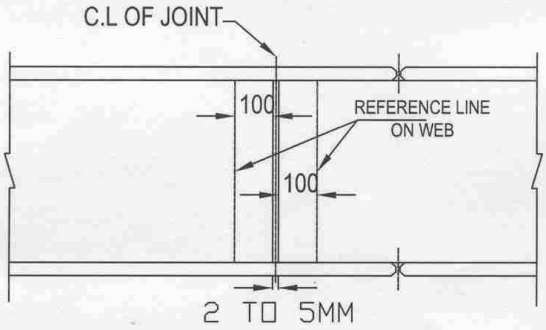



FIG:1

CORRECTION OF FLANGE WARPAGE

| DESIGNATION | DETAIL OF SKETCH | PERMISSIBLE DEVIATION |
|---|---|---|
| WEB SHIFT |   FIG:2 | $\frac{b1 - b2}{2} = 2mm$ |
| FLANGE WARPAGE |   FIG:3 | $T1+T2 = \frac{B}{100}$ OR 6MM |



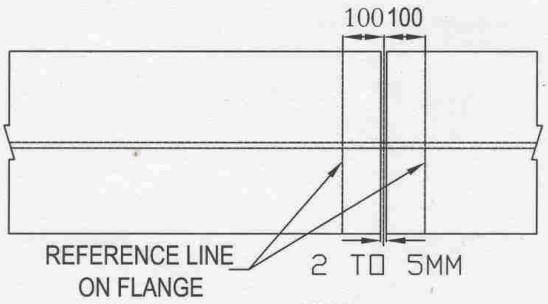
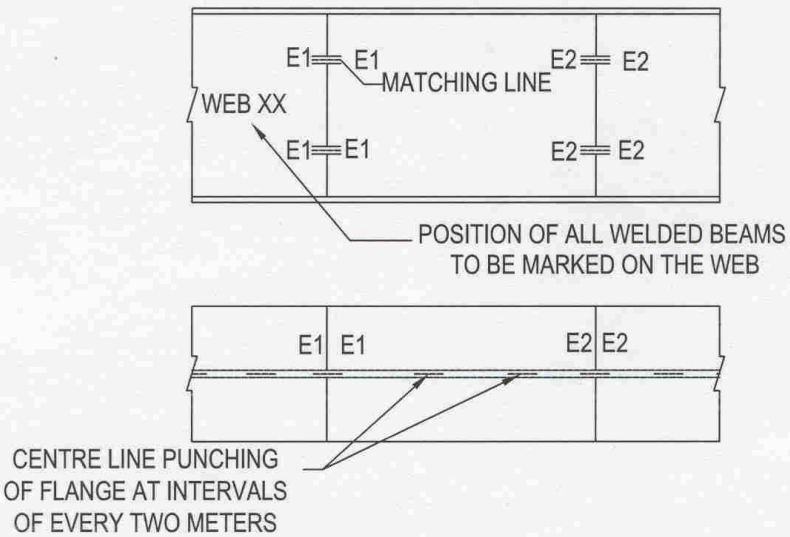
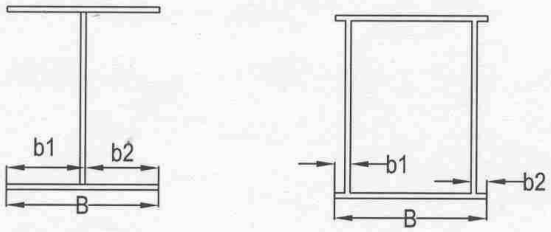
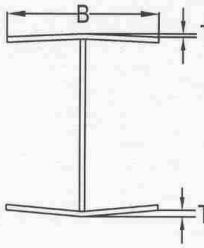
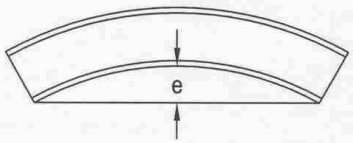
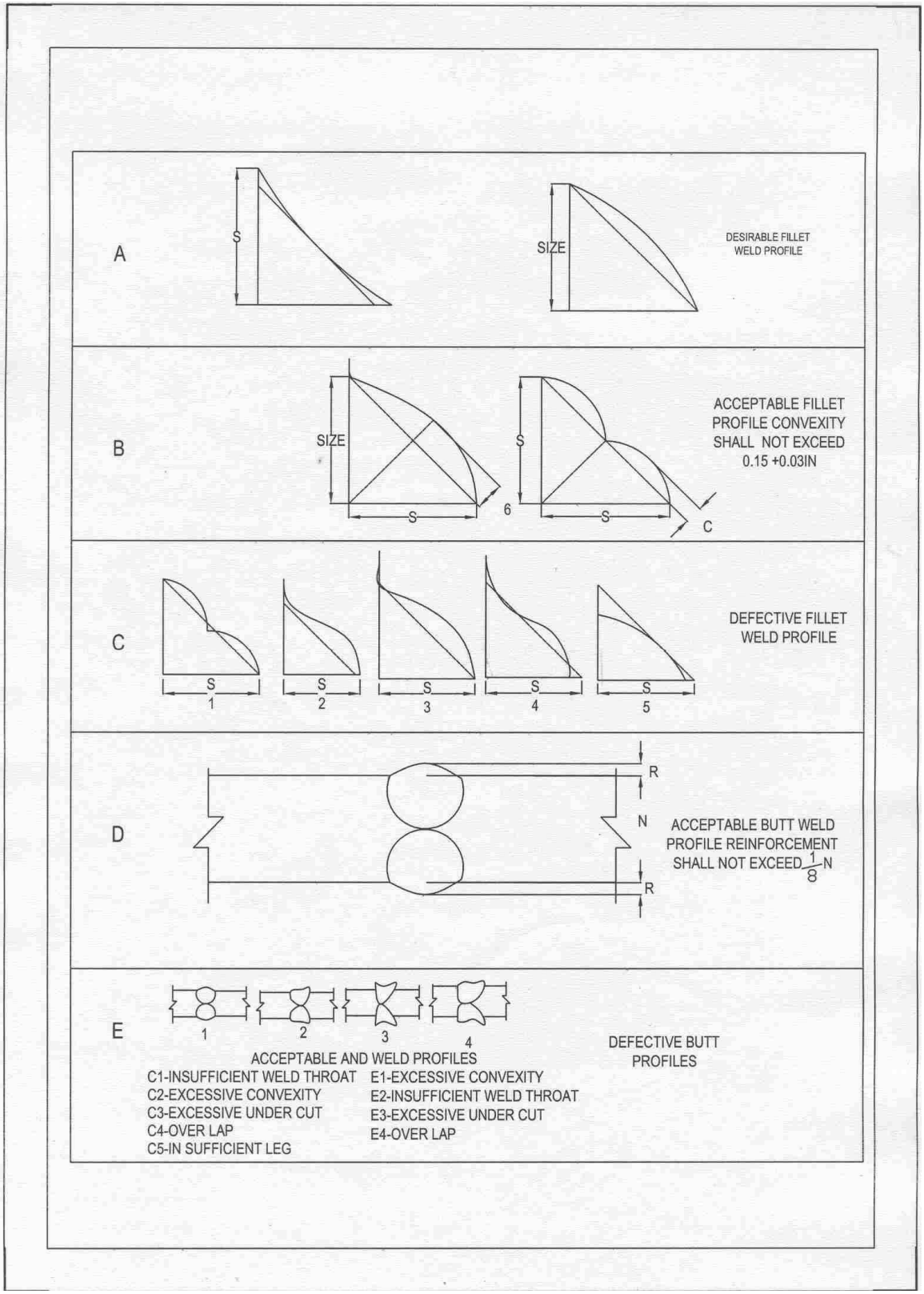



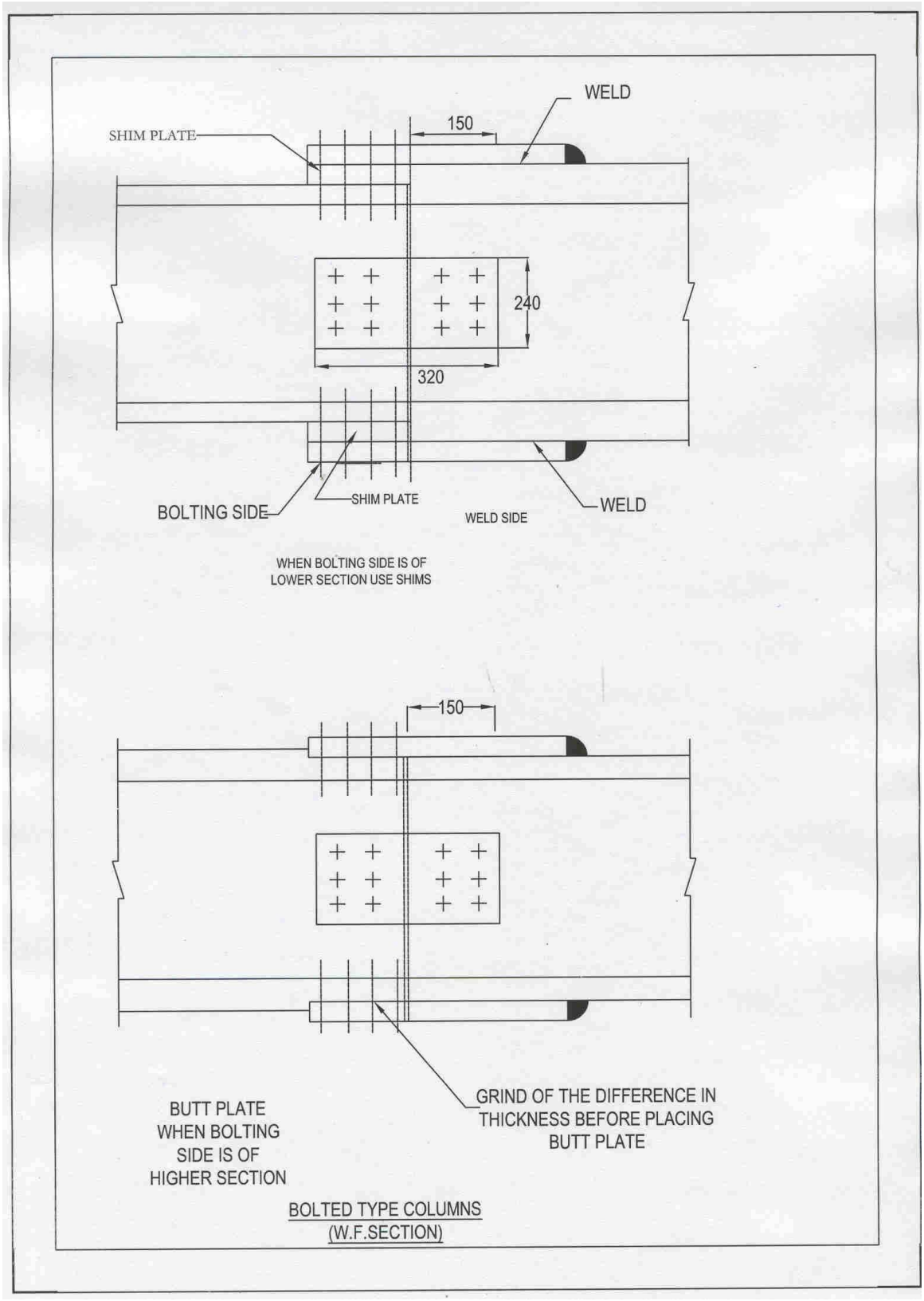

FIG:4

FIG:5 MATCH MARKING [GIRDER-5]



| DESIGNATION | DETAIL OF SKETCH | PERMISSIBLE DEVIATION |
|---|---|---|
| WEB SHIFT | FIGURE-7   | $\frac{b1 - b2}{2}$ = 2mm MAX |
| FLANGE WARPAGE | FIGURE-8   | $T1+T2 = \frac{B}{100}$ OR 6MM |
| CAMBER | FIGURE-9   | E = 1/1000 x length SUBJECT TO MAX ] OF 10mm. |


A
S
SIZE
DESIRABLE FILLET
WELD PROFILE
B
SIZE
S
S
6
S
C
ACCEPTABLE FILLET
PROFILE CONVEXITY
SHALL NOT EXCEED
0.15 +0.03IN
C
S
1
S
2
S
3
S
4
S
5
DEFECTIVE FILLET
WELD PROFILE
D
R
N
R
ACCEPTABLE BUTT WELD
PROFILE REINFORCEMENT
SHALL NOT EXCEED 1/8 N
E
1
2
3
4
DEFECTIVE BUTT
PROFILES
ACCEPTABLE AND WELD PROFILES
C1-INSUFFICIENT WELD THROAT
C2-EXCESSIVE CONVEXITY
C3-EXCESSIVE UNDER CUT
C4-OVER LAP
C5-IN SUFFICIENT LEG
E1-EXCESSIVE CONVEXITY
E2-INSUFFICIENT WELD THROAT
E3-EXCESSIVE UNDER CUT
E4-OVER LAP




**BHEL APPROVED BRANDS FOR THE FOLLOWING MATERIALS / ITEMS**

| Sl. No. | Material | Manufacturing Co. | Brand |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1. | Synthetic Enamel Paint | Asian<br>Berger<br>ICI | Apcolite<br>Luxol<br>Dulux gloss |
| 2. | Aluminium Paint | Berger | Berger Aluminium |
| 3. | Interior Emulsion | Asian<br>Berger<br>ICI | Royale<br>Luxol Silk<br>Supercote |
| 4. | Exterior Emulsion | Asian<br>ICI | ACE<br>Supercote |
| 5. | Distemper | Asian<br>Berger<br>ICI | Tractor<br>Bison<br>Maxilite |
| 6. | Cement Paint | Snowcem<br>Agsarcem | Snowcem<br>Agsarcem |
| 7. | A.C. Sheets | Everest India Ltd.<br>Hyderabad India Ltd.<br>Visaka Industries Ltd.<br>Ramco | Everest I<br>Charminar<br>Visaka<br>Ramco |
| 8. | G.I. Pipes | TATA<br>Zenith | TATA<br>Zenith |
| 9. | PVC Pipes | Avonplast<br>Finolex<br>Truebore<br>Vignesh | Avonplast<br>Finolex<br>Truebore<br>Vignesh |

In addition, CPWD approved brands shall also be considered based on written requests from contractor including for the materails which are not listed above. However, the decision of engineer in charge is final.

# Annexure-II

# BHEL SCHEDULE OF RATES 2013-14

**BHARAT HEAVY ELECTRICALS LIMITED**

**TIRUCHIRAPPALLI – 620 014**

**CIVIL ENGINEERING DEPARTMENT**

# BHEL
# SCHEDULE OF RATES
# 2013-14

BASED ON CPWD ANALYSIS OF RATES

CIVIL ENGINEERING

# PREFACE

1. BHEL Schedule of Rates 2013-14 has been prepared based on TN PWD 2013-14, CPWD Analysis of DSR 2013, Highways SR 2014.

2. Labour wages are as per State PWD Schedule of Rates. Rate for most of materials are adopted from least rates collected in local market. The remaining material rates are taken from TN PWD SR 2013-14 & DSR 2013.

3. Cement, Reinforcement Steel & Structural Steel required for the works will be issued by BHEL Stores at free of cost.

4. Water, Power and Compressed air required for the works will be provided by this organization at free of cost at only one point, subject to availability. In case of failure of the above provisions, contractor has to make his own arrangements for water without any extra claim.

5. All the item rates in this S.R includes :-

i) 13.61% of labour wage towards contractor's contribution for P.F.

ii) 4.75% of labour wage towards contractor's contribution for ESI.

iii) 10 % towards contractor's profit & overheads.

iv) No additional payment as insisted by BHEL is included in SR.

6. A floor means a floor of maximum height of 4.50 metre.

7. Items of work not finds place in this Schedule of Rates and if required later will be included as and when necessary.

8. This Schedule of Rates 2013–14 has the financial concurrence and approval of competent authority.

* * * * * * * * * * * * *

## NEW ITEMS ADDED IN SR 2013-14

| S.No | Item No | Description |
|---|---|---|
| 1 | 103 A to D | Open Excavation |
| 2 | 126 | Injecting pre-const anti-termite treat |
| 3 | 128A | Injecting-post-const anti-termite treat along external wall where apron not provided |
| 4 | 128B | Injecting-post-const anti-termite treat along external wall or apron |
| 5 | 128C | Injecting-post-const anti-termite treat for soil under flooring |
| 6 | 128D | Injecting-post-const anti-termite treating existing masonry |
| 7 | 128E | Injecting-post-const anti-termite treat at wook work |
| 8 | 201H | PCC 1:4:8 20mm upto Plinth |
| 9 | 320 | Brick flyash lime |
| 10 | 321 | Brick FALG |
| 11 | 431A | uPVC Door frame 48X40 |
| 12 | 431B | uPVC Door frame 42X50 |
| 13 | 432 | PVC door shutter 24mm tk |
| 14 | 433 | PVC door shutter 30mm tk |
| 15 | 434 | PVC flush door shutter 25 mm tk |
| 16 | 435 | P.V.C. door frame 50x47 mm |
| 17 | 436A | PVC foam door shutter 30 mm tk- non decorative |
| 18 | 436B | PVC foam door shutter 30 mm tk- decorative |
| 19 | 438A | Removing the existing Teakwood partition partly panelled with door |
| 20 | 438B | Removing the existing Teakwood partition panelled with door |
| 21 | 439A | Fixing Teakwood partition partly panelled, glazed with door |
| 22 | 439B | Fixing Teakwood partition panelled, glazed with door |
| 23 | 546 | UV resistant polyurethane compound lining |
| 24 | 547 | UV resistant polyurethane compound lining with removing and fixing North light Glazing, roofing sheets |
| 25 | 548 | Paver block coloured 50mm tk |
| 26 | 549 | Welding & erecting 90 Lbs/CR 80 Rail |
| 27 | 550 | Renewing the bottom rail and/or top rubber of collapsible gate |
| 28 | 552 | Cup type Rail Clamp |
| 29 | 553 | Erection of CR 80/R 45 rails at all heights |
| 30 | 612B | Plain Ceramic Tiles of 305mm X 305mm X 6mm of all Colours |
| 31 | 612C | First Quality Design Ceramic tile of Size 305mm X 305mm X 6mm of all Colours. |
| 32 | 616 | Ceramic glazed wall tiles laid over 20 mm tk Cemenr Mortar 1:3 |

| S.No | Item No | Description |
|---|---|---|
| 33 | 618L | Floor - Granite slab 16-18mm green |
| 34 | 618O | Floor - Granite slab 16-18mm Blue |
| 35 | 618P | Floor - Granite slab 16-18mm Lakha red |
| 36 | 619I | Granite tiles-8 - 10mm Raw silk |
| 37 | 619J | Granite tiles-8 - 10mm Steel grey |
| 38 | 620A | Stone tile work of 8 mm thick Mirror Polished - Jet Black |
| 39 | 620B | Stone tile work of 8 mm thick Mirror Polished - Red (Gem) Colour |
| 40 | 620C | Stone tile work of 8 mm thick Mirror Polished - Green Colour |
| 41 | 620D | Stone tile work of 8 mm thick Mirror Polished - Black (Galaxy) Colour |
| 42 | 620E | Stone tile work of 8 mm thick Mirror Polished - Steel Grey Colour |
| 43 | 620F | Stone tile work of 8 mm thick Mirror Polished - Rajnagar plain white/Green (Udaipur)/Black (Zebra) |
| 44 | 621A | Stone tile work of 8 mm thick polished - Jet Black |
| 45 | 621B | Stone tile work of 8 mm thick Polished - Red (Gem) Colour |
| 46 | 621C | Stone tile work of 8 mm thick Polished - Green Colour |
| 47 | 621D | Stone tile work of 8 mm thick Polished - Black (Galaxy) Colour |
| 48 | 621E | Stone tile work of 8 mm thick Polished - Steel Grey Colour |
| 49 | 621F | Stone tile work of 8 mm thick Polished - Rajnagar plain white/Green (Udaipur)/Black (Zebra) |
| 50 | 627 | Labour charges for Nozing & Polishing |
| 51 | 628 | Flooring with 1:2:4 using 20mm |
| 52 | 701 | Carrying hoisting and fixing Al Zn alloy coated roofing sheets |
| 53 | 702 | Carrying hoisting and fixing Al Zn alloy coated sidesheets |
| 54 | 703 | Supplying, Conveying hoisting and fixing Al Zn alloy coated roofing sheets |
| 55 | 704 | Supplying, conveying, hoisting and fixing Al Zn alloy coated sidesheets |
| 56 | 705 | Supplying fixing 2mm Poly carbonate sheets |
| 57 | 706 | Supplying and fixing Turbo Air Ventilators of 600mm dia or thereabouts |
| 58 | 723 | Conveying fixing 4mm/6mm thick polycarbonate sheet for north light glazing |
| 59 | 724 | Collecting and cleaning damaged north light glazing sheets |
| 60 | 840A | ACE paint 3 coats |
| 61 | 841A | ACE 3 coat on stucco /Ex.aggr. Surface |
| 62 | 846 | Altek superfine 2 coat |
| 63 | 903 TO 921 | Road Specifications |
| 64 | 1107C | 160x160x160mm single tee with door |

| S.No | Item No | Description |
|---|---|---|
| 65 | 1107F | 160x160x160mm single tee without door |
| 66 | 1107L | 160mm bend |
| 67 | 1110iii | CP brass long body bib cock -15mm |
| 68 | 1115 ii | Brass chromium plated towel rail 600 mm |
| 69 | 1115 iii | Anodised aluminium Towel rail 60cm long |
| 70 | 1116ii | Circular shape 450 mm dia Mirror |
| 71 | 1116 iii | Rectangular shape 453x357 mm Mirror |
| 72 | 1116 iv | Oval shape 450x350 mm Mirror |
| 73 | 1116 v | Rectangular shape 1500x450 mm Mirror |
| 74 | 1130 ii | Urinal size 580x380x350 mm |
| 75 | 1152a | Labour - GI fitting 15mm |
| 76 | 1152b | Labour - GI fitting 20mm |
| 77 | 1152c | Labour - GI fitting 25mm |
| 78 | 1152d | Labour - GI fitting 32mm |
| 79 | 1152e | Labour - GI fitting 40mm |
| 80 | 1152f | Labour - GI fitting 50mm |
| 81 | 1152g | Labour - GI fitting 65mm |
| 82 | 1152h | Labour - GI fitting 80mm |
| 83 | 1152i | Labour - GI fitting 100mm |
| 84 | 1152j | Labour - GI fitting 125mm |
| 85 | 1152k | Labour - GI fitting 150mm |
| 86 | 1153i | Gun metal valve 25mm (horizontal) |
| 87 | 1153ii | Gun metal valve 25mm (vertical) |
| 88 | 1153iii | Gun metal valve 32mm (horizontal) |
| 89 | 1153iv | Gun metal valve 32mm (vertical) |
| 90 | 1153v | Gun metal valve 40mm (horizontal) |
| 91 | 1153vi | Gun metal valve 40mm (vertical) |
| 92 | 1153vii | Gun metal valve 50mm (horizontal) |
| 93 | 1153viii | Gun metal valve 50mm (vertical) |
| 94 | 1153 ix | Gun metal valve 65mm (horizontal) |
| 95 | 1153x | Gun metal valve 65mm (vertical) |
| 96 | 1153xi | Gun metal valve 80mm (horizontal) |
| 96 | 1153xii | Gun metal valve 80mm (vertical) |
| 97 | 1154 | CP bottle trap 32mm dia. |
| 98 | 1155 | Polyethylene cylindrical tank 500 litres |

| S.No | Item No | Description |
|---|---|---|
| 99 | 1156 | Fire clay laboratory sink ( white ) |
| 100 | 1157 | white glazed earthen ware wash hand basin of oval shape |
| 101 | 1158 | PTMT float valve |
| 102 | 1159 | Labour for removing blockage in gully trap |
| 103 | 1210a | False ceiling- Arm Gyp |
| 104 | 1210b | False ceiling-Aruba |
| | 1218 | Servicing aluminium door/window |
| 105 | 1219 A to H | Aluminium Grill |
| 106 | 1220 | Powder coated Al.Partition for 3.2m ht- Partially panelled |
| 107 | 1221 | Powder coated Al.Partition for 3.2m ht- fully panelled |
| 108 | 1222 | Powder coated Al.Partition for 1.5 m ht- Partially panelled |
| 109 | 1223 | Powder coated Al. single leaved/double leaved |
| 110 | 1224 | Powder coated al. ventilator |
| 111 | 1225 | Powder coated Al. two track sliding window |
| 112 | 1226 | Anodised Al.Partition for 3.2m ht- Partially panelled |
| 113 | 1227 | Anodised Al.Partition for 3.2m ht- fully panelled |
| 114 | 1228 | Anodised Al.Partition for 1.5 m ht- Partially panelled |
| 115 | 1229 | Anodised Al. single leaved/double leaved |
| 116 | 1230 | Anodised al. ventilator |
| 117 | 1231 | Anodised Al. two track sliding window |
| 118 | 1232 a to b | False ceiling 7.5mm Nano Tiles 600X600, 4mm Everest Tiles 600X600 |
| 119 | 1235 | Vertical Venetian Blinds |
| 120 | 1302A | Boring - 300mm dia. |
| 121 | 1302B | Boring - 400mm dia. |
| 122 | 1302C | Boring - 450mm dia. |
| 123 | 1533 | Labour - Chain link fence |
| 124 | 1534A | G.I Chain link fencing 50 X50 |
| 125 | 1534B | PVC coated G.I Chain link fencing |
| 126 | 1535 | G.I Chain link fencing 25X25 |
| 127 | 1536A to D | Drilling of Holes |
| 128 | 1537 | Cleaning of septic tank |
| 129 | 1538 | Roof leak-1 primer coat |
| 130 | 1539 | Roof leak-1 primer and 2 top coats |
| 131 | 1540 | 2 membrane coats and 1 bond coat |

| S.No | Item No | Description |
|---|---|---|
| 132 | 1541 | Crack filling at parapet level with pressure grouting |
| 133 | 1542 | Crack filling at parapet level without pressure gouting |
| 134 | 1543 | Drilling pockets and fixing PVC Nipples in position |
| 135 | 1544 | Providing one coat of Antifungal coating |
| 136 | 1545 | Arresting leakage through RCC Construction joints |
| 137 | 1546 | Arresting leakage through Masonry consruction joints. |
| 138 | 1547 | Providing aluminum Sheet Flashing |

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## I - EARTHWORK

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0101 | Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. | | |
| A | All kinds of soil except rock | CUM | 125.80 |
| B | Ordinary rock | CUM | 201.70 |
| C | Hard rock (requiring blasting) | CUM | 363.55 |
| D | Hard rock (blasting prohibited) | CUM | 410.75 |
| 0102 | Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc. | | |
| A | All kinds of soil except rock | CUM | 138.40 |
| B | Ordinary rock | CUM | 221.85 |
| C | Hard rock (requiring blasting) | CUM | 399.90 |
| D | Hard rock (blasting prohibited) | CUM | 451.80 |
| 0103 | Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. | | |
| A | All kinds of soil except rock | CUM | 178.10 |
| B | Ordinary rock | CUM | 188.55 |
| C | Hard rock (requiring blasting) | CUM | 334.30 |
| D | Hard rock (blasting prohibited) | CUM | 400.90 |
| 0104 | Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed in All kinds of soil | SQM | 35.40 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0105 | Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. | SQM | 8.70 |
| 0106 | Open timbering in trenches including strutting and shoring complete. (Measurements to be taken of the face area timbered) | | |
| A | Depth not exceeding 1.5 metre | SQM | 52.25 |
| B | Depth exceeding 1.5 metre but not exceeding 3 metre | SQM | 55.20 |
| C | Depth exceeding 3 metre but not exceeding 4.5 metre | SQM | 60.10 |
| 0107A | Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge.<br>In or under water and/ or liquid mud, including pumping out water as required. | | |
| (i) | All kinds of soil except rock | CUM | 25.15 |
| (ii) | Ordinary rock | CUM | 40.35 |
| (iii) | Hard rock (requiring blasting) | CUM | 72.70 |
| (iv) | Hard rock (blasting prohibited) | CUM | 82.15 |
| | Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed.<br>In or under water and/ or liquid mud, including pumping out water as required. | | |
| (v) | All kinds of soil except rock | CUM | 35.60 |
| (vi) | Ordinary rock | CUM | 37.70 |
| (vii) | Hard rock (requiring blasting) | CUM | 66.85 |
| (viii) | Hard rock (blasting prohibited) | CUM | 80.20 |
| (ix) | Extra for earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed. All kinds of soil in or under water and/ or liquid mud, including pumping out water as required | SQM | 7.10 |
| (x) | Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under water and/ or liquid mud, including pumping out water as required. | SQM | 1.75 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0107B | Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge.<br>In or under foul position, including pumping out water as required. | | |
| (i) | All kinds of soil except rock | CUM | 31.45 |
| (ii) | Ordinary rock | CUM | 50.45 |
| (iii) | Hard rock (requiring blasting) | CUM | 90.90 |
| (iv) | Hard rock (blasting prohibited) | CUM | 102.70 |
| | Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed.<br>In or under foul position, including pumping out water as required. | | |
| (v) | All kinds of soil except rock | CUM | 44.55 |
| (vi) | Ordinary rock | CUM | 47.15 |
| (vii) | Hard rock (requiring blasting) | CUM | 83.60 |
| (viii) | Hard rock (blasting prohibited) | CUM | 100.25 |
| (ix) | Extra for earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed All kinds of soil in or under foul position, including pumping out water as required. | SQM | 8.85 |
| (x) | Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under foul position, including pumping out water as required.<br>Note :-<br>The extra percentage is applicable in respect of each item, but limited to quantities of work done in these difficult conditions. The unit, namely , metre depth, to be considered for payment, shall be the depth measured from the sub soil water level upto the centre of gravity of the quantity executed in difficult conditions. The depth shall be reckoned correct to 0.10 metre, 0.05 metre or more shall be taken as 0.10 metre and less than 0.05 metre ignored. | SQM | 2.20 |
| 0108 | Extra for every additional lift of 1.5 metre or part thereof in : | | |
| A | All kinds of soil Excluding Rock. | CUM | 32.45 |
| B | Ordinary or hard rock | CUM | 58.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0109 | Extra for every additional lead of 10 metre or part thereof over the initial lead for all kinds of soil. | CUM | 32.45 |
| 0110 | Supply and filling with river sand in foundation, plinth, under floor etc. including watering, ramming, consolidating and dressing complete. | CUM | 502.95 |
| 0111 | Supply and spreading/filling with stone dust complying with standard specifications. | CUM | 250.40 |
| 0112 | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift up to 1.5 m etc. complete. | CUM | 78.90 |
| 0113 | Labour charges for mixing the earth, red earth, sand, manure, coconut waste etc. thoroughly to the required proportion and carrying the same and filling it in the excavated pits/areas at various locations with all leads and lifts. Rate excludes cost of materials. | CUM | 85.90 |
| 0114 | Ploughing the existing ground in all kinds of soil to a depth of 15 to 25 cm and watering the same. | SQM | 8.85 |
| 0115 | Labour charges for breaking clods, consolidating, sectioning etc. | CUM | 2.90 |
| 0116 | Forming turfing in slopes with initial watering, all as per instructions of Engineer-in-charge. | SQM | 16.15 |
| 0117 | Extra rate for consolidation of bunds etc. by means of the following, including watering. | | |
| A | Hand roller | CUM | 9.65 |
| B | Power roller including hire charges. | CUM | 16.15 |
| 0118 | Benching hard rock upto an average 10 cm depth | SQM | 315.70 |
| 0119 | Drilling holes in hard granite/RCC structure: | | |
| A | 45 mm dia | RM | 123.70 |
| B | 50 mm dia | RM | 147.35 |
| C | 75mm dia | RM | 167.35 |
| 0120 | Bailing or pumping out water from trenches, foundations etc., at all depths wherever necessary as per standard specifications. | HP/Hr | 65.05 |
| 0121 | Clearing grass and removal of rubbish upto a distance of 50 metre. | SQM | 2.30 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0122 | Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 metre above ground level and removal of rubbish upto a distance of 50 metre. | SQM | 4.50 |
| 0123 | Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials. | | |
| A | Beyond 30 cm girth upto and including 60 cm girth | EACH | 139.20 |
| B | Beyond 60 cm girth upto and including 120 cm girth | EACH | 613.65 |
| C | Beyond 120 cm girth upto and including 240 cm girth | EACH | 2831.15 |
| D | Above 240 cm girth | EACH | 5682.55 |
| 0124 | Supplying Chlorpyriphos / Lindane emulsifiable concentrate of 20 % (chemical emulsion) in sealed containers at site of work. | LITRE | 176.10 |
| 0125 | Labour charges for pre-constructional anti-termite treatment by diluting and injecting chemical emulsion which will be supplied by BHEL at free of cost and creating a continuous chemical barrier under and alround the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment) | SQM | 142.65 |
| 0126 | Diluting and injecting pre-constructional anti-termite treatment by chemical emulsion and creating a continuous chemical barrier under and alround the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment). Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instuctions of Engineer in charge. | SQM | 477.25 |
| 0127 | Labour charges for post-constructional anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. | | |
| A | 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. | RM | 11.35 |
| B | Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc. | RM | 17.40 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| C | Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 5 litre / 9 SQM) | SQM | 90.60 |
| D | Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM) | RM | 13.50 |
| E | Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/Lindane (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene but excludes chemical. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM) | RM | 123.80 |
| 0128 | Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instuctions of Engineer in charge. | | |
| A | 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. | RM | 66.30 |
| B | Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc. | RM | 72.35 |
| C | Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. | SQM | 361.95 |
| D | Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole. | RM | 96.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| E | Treatment at points of contact of wood work by chemical emulsion (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene, chemical emulsion. | RM | 206.80 |
| 0129 | Hire charges for engaging earth moving machinery (Hydraulic Excavator) to attend to channeling works at river bed, pipe line burst works, cleaning the areas including uprooting thorny plants/heavy jungles/trees etc.of all heights and leveling the areas thereafter including all debris etc., all as per instructions of Engineer-in-charge. Rate includes hire, fuel, operation charges, to and fro charges for machinery, all labour and all other incidentals etc., complete. | HR | 1100.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **II - CONCRETE WORKS** | | |
| 0201 | Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. | | |
| A | 1:1:2 with graded stone aggregate 20 mm nominal size.<br>CEMENT CONSUMPTION - 610.00 K.G PER CUM | CUM | 2019.90 |
| B | 1:1.5:3 with graded stone aggregate 20 mm nominal size.<br>CEMENT CONSUMPTION - 400.00 K.G/CUM | CUM | 1972.65 |
| C | 1:2:4 with graded stone aggregate 20 mm nominal size.<br>CEMENT CONSUMPTION - 320.00 K.G/CUM | CUM | 2043.75 |
| D | 1:2:4 with graded stone aggregate 40 mm nominal size.<br>CEMENT CONSUMPTION - 320.00 K.G/CUM | CUM | 1866.15 |
| E | 1:3:6 with graded stone aggregate 40 mm nominal size.<br>CEMENT CONSUMPTION - 220.00 K.G/CUM | CUM | 1913.70 |
| F | 1:4:8 with graded stone aggregate 40 mm nominal size.<br>CEMENT CONSUMPTION - 170.00 K.G/CUM | CUM | 1908.50 |
| G | 1:5:10 with graded stone aggregate 40 mm nominal size.<br>CEMENT CONSUMPTION - 130.00 K.G/CUM | CUM | 1904.35 |
| H | 1:4:8 with graded stone aggregate 20 mm nominal size.<br>CEMENT CONSUMPTION - 170.00 K.G/CUM | CUM | 2117.30 |
| 0202 | Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement. | | |
| A | 1:1:2 with graded stone aggregate 20 mm nominal size - All works upto plinth level.<br>CEMENT CONSUMPTION - 610.00 K.G/CUM | CUM | 2211.60 |
| B | 1:1.5:3 with graded stone aggregate 20 mm nominal size - All works upto plinth level.<br>CEMENT CONSUMPTION - 400.00 K.G/CUM | CUM | 2164.35 |
| C | 1:2:4 with graded stone aggregate 20 mm nominal size - All works upto plinth level.<br>CEMENT CONSUMPTION - 320.00 K.G/CUM | CUM | 2235.45 |
| D | 1:1:2 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.<br>CEMENT CONSUMPTION - 610.00 K.G/CUM | CUM | 2822.35 |
| E | 1:1.5:3 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.<br>CEMENT CONSUMPTION - 400.00 K.G/CUM | CUM | 2775.10 |
| F | 1:2:4 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level. | CUM | 2846.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | CEMENT CONSUMPTION - 320.00 K.G/CUM | | |
| 0203 | Straightening, cutting, bending, placing in position of MS/CTD bars and binding with MS binding wires of 18/20 gauge etc. for reinforcement of RCC works. Rate includes cover blocks, cost of binding wire , conveyance of MS/ CTD bars from BHEL stores to site of work, labour etc. complete. MS/CTD bars will be supplied by BHEL at Stores at free of cost. | MT | 7439.40 |
| 0204 | Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. | | |
| A | Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete. | SQM | 167.30 |
| B | Walls (any thickness) including attached pilasters, plinth, stairs, chimney, shafts and string courses etc. | SQM | 291.65 |
| C | Suspended floors, roofs, landings, balconies, access platform and sunshades. | SQM | 323.65 |
| D | Lintels, beams, plinth beams, girders, bressumers and cantilevers | SQM | 253.50 |
| E | Columns, pillars, piers, abutments, posts and struts. | SQM | 371.70 |
| F | Arches, domes, vaults upto 6 m span | SQM | 783.80 |
| G | Well steining | SQM | 465.50 |
| H (i) | Extra for shuttering : Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete in circular work. | SQM | 33.45 |
| H (ii) | Extra for shuttering : Lintels, beams, plinth beams, girders, bressumers and cantilevers in circular work. | SQM | 50.70 |
| H (iii) | Extra for shuttering : Columns, pillars, piers, abutments, posts and struts in circular work. | SQM | 74.35 |
| I | Pockets or holes in foundations for holding down bolts. | SQM | 679.25 |
| 0205 | Extra for additional height in centring, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and de-centring at all levels, over a height of 4.5 metre for every additional height of 1 metre or part there of. For suspended floors, roofs, landing, beams & balconies (Plan area to be measured) | SQM | 165.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0206 | Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforcd cement concrete of specified grade for structrural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-20 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.<br>CEMENT CONSUMPTION - 383.00 K.G PER CUM | CUM | 2728.60 |
| 0207 | Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforcd cement concrete of specified grade for structrural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. | | |
| A | M-25 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.<br>CEMENT CONSUMPTION - 410.00 K.G PER CUM | CUM | 2737.05 |
| B | M-30 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.<br>CEMENT CONSUMPTION - 420.00 K.G PER CUM | CUM | 2740.15 |
| C | M-35 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.<br>CEMENT CONSUMPTION - 428.00 K.G PER CUM | CUM | 2742.70 |
| 0208 | Extra for laying plain / reinforced concrete in or under foul conditions. | CUM | 125.20 |
| 0209 | Providing vertical drops, fins, facias etc., for the following thickness with 1:2:4 cement concrete using 6 mm granite stone chips for inner core applied on chickenmesh and neatly plastered with cement mortar 1:4, 12mm thick on both faces, finishing, curing etc., complete. Rate includes cost of all materials and labour but excluding fabrication charges for reinforcement. | | |
| A | 75mm thick<br>CEMENT CONSUMPTION - 24.76 K.G PER SQM | SQM | 842.60 |
| B | 60 mm thick<br>CEMENT CONSUMPTION - 20.68 K.G PER SQM | SQM | 830.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0210 | Providing, hoisting and fixing upto floor five level precast reinforced cement concrete elements like slabs etc. of 25 to 150 mm thick in required sizes with mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly for cupboards, shelves etc. including setting in cement mortar 1:3, cost of centring, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement and fabrication charges.<br>CEMENT CONSUMPTION - 320.00 K.G PER CUM | CUM | 6332.65 |
| 0211 | Providing, hoisting and fixing upto floor V level plain cement concrete elements like slabs etc. of 25 to 150 mm thick of required sizes in mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly. Rate includes centring, shuttering & finishing with neat cement punning on exposed surfaces but excluding pointing.<br>CEMENT CONSUMPTION - 320.00 K.G PER CUM | CUM | 5228.55 |
| 0212 | Carrying from departmental stores / stack yard and fixing in position of 25 to 150 mm thick Plain / R C C precast elements like slabs etc. to the correct line, level, plumb and alignment, all as per standard specifications. Rate excludes cost of precast slabs and pointing. | CUM | 506.60 |
| 0213 | Providing precast cement concrete Jali 1:2:4 using graded stone aggregate 6 mm nominal size with suitable reinforcement including centring and shuttering, roughening, cleaning, fixing and finishing in cement mortar 1:3 etc.complete. Rate excludes reinforcement steel & fabrication charges. | | |
| A | 50 mm thick<br>CEMENT CONSUMPTION - 12.80 K.G PER SQM | SQM | 538.75 |
| B | 40 mm thick<br>CEMENT CONSUMPTION - 10.24 K.G PER SQM | SQM | 461.70 |
| 0214 | Providing and fixing RCC precast perforated lawn drain cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 10 mm nominal size including moulding, shuttering, finishing, carrying and fixing in position etc., complete. Rate excludes reinforcement steel & fabrication charges. | | |
| A | 75 mm thick<br>CEMENT CONSUMPTION - 19.84 K.G PER SQM | SQM | 264.95 |
| B | 50 mm thick<br>CEMENT CONSUMPTION - 12.80 K.G PER SQM | SQM | 161.60 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0215 | Precasting, carrying and fixing in position of RCC louvers including 60 mm thick side posts, 60 mm thick intermittent lintel and 100 mm thick top lintel, 40 mm thick louver slabs lintels etc. (all precast) in cement concrete 1:2:4 using graded stone aggregate 10 mm nominal size with specified reinforcement, all as per standard drawing and instructions of Engineer-in-charge. Rate includes supply and fixing of holdfasts, moulding, scaffolding for fixing at specified levels, finishing and also filling the gap between precast lintels with insitu cement concrete of mix 1:2:4 using 10 mm and down graded hard broken granite stone jelly and filling the gap recesses of side walls with C.M 1:5, cutting and forming chases in brick masonry, finishing jambs wherever necessary and making good all damages to suit the existing work but excluding cost of fabrication charges for reinforcement steel.<br><br>CEMENT CONSUMPTION - 34.73 K.G PER SQM | SQM | 772.80 |
| 0216 | Precasting and fixing in position of RCC cable trench cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 12 mm nominal size with top 15 mm thick finished with hardening compound of proportion one part of ironite or equivalent, four parts of cement and eight parts of 6 mm gauge hard granite stone chips (the proportion being by weight) including welding reinforcement rods to the frame work, all as per drawing, specifications and instructions of Engineer-in-charge but excluding cost of M.S frame work which will be paid separately. Reinforcement rods and M.S frames will be supplied by BHEL at stores at free of cost. | | |
| A | 69mm thick slab<br>CEMENT CONSUMPTION - 26.03 K.G PER SQM | SQM | 543.65 |
| B | 150mm thick slab<br>CEMENT CONSUMPTION - 52.00 K.G PER SQM | SQM | 736.75 |
| 0217 | Encasing rolled steel sections in beams and columns in cement concrete 1:2:4 using graded stone aggregate 12.50 mm nominal size including centering, shuttering etc. complete but excluding cost of reinforcement & fabrication charges.<br><br>CEMENT CONSUMPTION - 320.00 K.G PER CUM | CUM | 4078.50 |
| 0218 | Providing balustrade for an overall thickness of 100 mm with cement concrete 1:2:4 using 12 to 20 mm size hard broken granite stone jelly for 75 mm thick inner core applied on chickenmesh and neatly plastered with cement mortar 1:4 on both faces and hand rail plastered in CM 1:4 with an admixture of red oxide including finishing, polishing curing etc., complete. Rate includes cost of all materials and labour but excluding cost of reinforcement and fabrication charges.<br><br>CEMENT CONSUMPTION - 32.92 K.G PER SQM | SQM | 994.70 |
| 0219 | Extra for providing and fixing expanded metal mesh of size 20 x 60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg. per sqm for encasing of rolled steel sections in beams, columns and grillage excluding cost of hangers. | SQM | 355.85 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0220 | Providing and fixing in position of copper plate as per design for expansion joints. | K.G | 306.05 |
| 0221 | Providing and filling in position of blown bitumen in expansion joints. | CUM | 50000.00 |
| 0222 | Providing and filling in position of bitumen mix filler of proportion 80 Kg of hot bitumen, 1 Kg of cement and 0.25 cubicmetre of coarse sand for expansion joints. | SQM | 15500.00 |
| 0223 | Providing and fixing in position of 12 mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints. | SQM | 410.00 |
| 0224 | Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work at 1 Kg per 50 Kg of cement. | K.G | 42.00 |
| 0225 | Labour charges for attending to spalling of concrete in ceiling of buildings. Scope of step by step activities are given:-<br>i) Removing the loose concrete / plaster by knocking with a 2 lbs hammer, scrapping with steel wire brush and exposing the sound concrete.<br><br>ii) Removing the rust in reinforcement by scraping with steel brush.<br>iii) Washing the concrete surface and reinforcement. (By jetting water)<br>iv) Applying passivator coat (2 K.G cement & 1 Lit. Roff bond repair) on rusted reinforcement and bond coat using CM 1:3 & Roff bond repair (5 K.G cement & 1 Lit. Roff bond repair) in layers of 6 mm thick to match with the existing surface. Roff bond repair mix shall be prepared in the proportion as directed by Engineer-in-charge.<br>OR<br>Applying rust primer on the steel and maricrete mix to the surface to be attended to by adding water in proportion as directed by Engineer-in-charge in layers of 6 mm thick to match with the existing surface.<br>v) Finishing the surface with clean trowel.<br>Note:-<br>I) Cement & the said chemicals will be supplied by BHEL at Stores at free of cost.<br>ii) Rate includes scaffolding, tools, labour, incidentals etc. complete. | SQM | 115.50 |
| 0226 | Providing and placing in position PVC water stops serrated with central bulb, 225 mm wide & 8-11 mm thick for construction / expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete. | RM | 462.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **III - MASONRY WORKS** | | |
| 0301 | Random rubble masonry in foundation and basement in the mix given below including simultaneous flush pointing, all as per standard specifications. | | |
| A | Cement mortar 1:5<br>CEMENT CONSUMPTION 102.30 K.G/CUM | CUM | 1775.55 |
| B | In cement mortar 1:6<br>CEMENT CONSUMPTION 82.50 K.G/CUM | CUM | 1773.45 |
| 0302 | Coursed rubble masonry (second sort) with hard stone in foundation and plinth with Cement mortar 1:6.<br>CEMENT CONSUMPTION 75.00 K.G/CUM | CUM | 2070.35 |
| 0303 | Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 metre. | CUM | 301.80 |
| 0304 | Extra for random rubble and coursed rubble masonry with hard stone in superstructure above plinth level and upto floor five level. | CUM | 645.50 |
| 0305 | Extra for laying stone work in or under foul position. | CUM | 125.20 |
| 0306 | Labour charges for providing random rubble masonry in foundation & basement in the mixes specified including simultaneous flush pointing, all as per standard specifications. Rough stones & bond stones will be supplied by BHEL at free of cost, at site of work. | CUM | 544.80 |
| 0307 | Providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications. | CUM | 1287.00 |
| 0308 | Labour charges for providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications. Rough stones will be supplied by BHEL at site at free of cost. | CUM | 884.40 |
| 0309 | Providing hollow block masonry in cement mortar 1:5 using hollow block of sizes 400 x 200 x 200 mm / 400 x 150 x 200 mm / 400 x 100 x 200 mm or thereabouts of approved good quality including simultaneous flush pointing, all as per standard specification. Rate includes cost of hollow blocks, conveying, leading, loading, unloading, labour, incidentals etc., complete. Upto 4.50 m height from plinth level.<br>CEMENT CONSUMPTION 23.77 K.G/CUM | CUM | 3111.15 |
| 0310 | Brick work with F.P.S bricks ( second class ground moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: | | |
| A | Cement mortar 1:3<br>CEMENT CONSUMPTION 127.50 K.G/CUM | CUM | 3725.30 |
| B | Cement mortar 1:4<br>CEMENT CONSUMPTION 95.00 K.G/CUM | CUM | 3721.90 |
| C | Cement mortar 1:5 | CUM | 3720.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | CEMENT CONSUMPTION 77.50 K.G/CUM | | |
| D | Cement mortar 1:6<br>CEMENT CONSUMPTION 62.50 K.G/CUM | CUM | 3718.50 |
| 0311 | Brick work with modular bricks ( second class table moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: | | |
| A | Cement mortar 1:3<br>CEMENT CONSUMPTION 112.20 K.G/CUM | CUM | 3899.00 |
| B | Cement mortar 1:4<br>CEMENT CONSUMPTION 83.60 K.G/CUM | CUM | 3896.05 |
| C | Cement mortar 1:5<br>CEMENT CONSUMPTION 68.20 K.G/CUM | CUM | 3894.45 |
| D | Cement mortar 1:6<br>CEMENT CONSUMPTION 55.00 K.G/CUM | CUM | 3893.05 |
| 0312 | Extra for Brick work in superstructure above plinth upto floor three level in all shapes and sizes. | CUM | 271.25 |
| 0313 | Extra for brick work with bricks curved on plan upto a mean radius not exceeding 6 metre. | CUM | 473.90 |
| 0314 | Extra charges for providing half brick masonry, brick on edge walls, fins, balustrade etc.over and above the brick work rates of 0310 & 0311. | CUM | 297.60 |
| 0315 | Honey-comb brick work 10 / 11.40 cm thick with FPS bricks of class designation 50 in cement mortar 1:4.<br>CEMENT CONSUMPTION 6.56 K.G/CUM | SQM | 314.15 |
| 0316 | Extra for laying brick work in or under foul position. | CUM | 125.20 |
| 0317 | Providing and filling with 20 mm brick jelly including filling the voids (max.of 10%) with river sand and compacted well with wooden hammer etc. complete. | CUM | 687.50 |
| 0318 | Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be. | SQM | 93.30 |
| 0319 | Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages, providing chickenmesh and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be. | SQM | 133.70 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0320 | Brick work with mechanized autoclaved fly ash lime bricks made up of fly ash, lime, gypsum and coarse sand / stone dust to size 230 mm x 110 mm x 70 mm or thereabouts confirming to IS 12894 of class desigination 50 (min) in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge<br>In cement mortar 1:5<br><br>CEMENT CONSUMPTION 77.50 K.G/CUM | CUM | 4320.70 |
| 0321 | Brick work with non modular fly ash lime bricks (FALG Bricks) conforming to IS:12894, class designation 10 average compressive strength in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge<br>In cement mortar 1:5<br><br>CEMENT CONSUMPTION 95.00 K.G/CUM | CUM | 4160.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **IV - WOOD WORKS** | | |
| 0401 | Providing best wooden frames for doors, windows, ventilators and other frames, wrought framed and fixed in position. All as per standard specifications and drawings. Rate includes cost of wood, holdfasts, other materials, labour etc. complete. | | |
| A | In Teak wood | CUM | 109029.20 |
| B | In Country wood | CUM | 46085.35 |
| 0402 | Providing best wooden frames for false ceiling, partitions etc. sawn and put up in position. All as per standard specifications and drawings. Rate includes cost of wood, M.S suspenders, screws, nails, other materials involved, labour, etc. complete. | | |
| A | In Teak wood | CUM | 113394.25 |
| B | In Country wood | CUM | 38851.80 |
| 0403 | Labour charges for wrought and put up in postion for all kinds of frames including fixing of holdfasts etc. complete. Rate excludes cost of wood and holdfasts. | CUM | 9765.45 |
| 0404 | Manufacture, supply and fixing best wooden door with frames and shutters comprising of fully panelled shutter of 35 mm thick and frame of size 95 x 70 mm including cost of holdfasts but excluding cost of furniture fittings & fitting charges. | | |
| A | In Teak wood | SQM | 4807.75 |
| B | In Country wood | SQM | 2257.90 |
| 0405 | Manufacture, supply and fixing in position of 35 mm thick fully panelled best wooden door shutters. All as per standard specifications & drawings. (Excluding door frame) Rate excludes furniture fittings. | | |
| A | In Teak wood (single leaved shutter) | SQM | 3375.90 |
| B | In Teak wood (double leaved shutter) | SQM | 3280.95 |
| C | In Country wood (single leaved shutter) | SQM | 1583.15 |
| D | In Country wood (double leaved shutter) | SQM | 1552.20 |
| 0406 | Supply and fixing in position of 38/40mm thick best quality flush shutters solid core type of approved quality with formaldehyde bonded teak ply (both faces) and with teak wood internal lippings etc., complete all as per drawings and standard specifications but excluding cost of frame and furniture fittings. (Area of shutter only to be measured) | | |
| A | Single leaved shutter | SQM | 3084.80 |
| B | Double leaved shutter | SQM | 3244.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0407 | Manufacture, supply and fixing in position of G.I sheet single leaved door with best country wood frame alround using 75 x 35 mm scantlings, including horizontal member of 75 x 35 mm at 600 mm c/c with 1.20 to 1.25 mm thick GI plain sheet on one side including sizing, fixing, cost of oxidised iron hinges, aluminium tower bolts, aluminium handles etc., all as per standard specifications & drawings. | SQM | 1294.80 |
| 0408 | Manufacture, supply and fixing double leaved wooden window with best wood and type of shutters given below with wooden frames of size 95 x 70 mm including sizing and fixing of 12/16 mm dia M.S rods and holdfasts but excluding cost of M.S rods, furniture fittings etc. complete. | | |
| A | In Teak wood. 35 mm thick shutter with 4 mm plain glass panes. | SQM | 6139.95 |
| B | In Teak wood. 35 mm thick shutter with 4 mm pin headed glass panes. | SQM | 6102.45 |
| C | In Teak wood. 35 mm thick shutter with 3 mm pin headed glass panes. | SQM | 6113.55 |
| D | In Teak wood. 35 mm thick shutter with 16 mm teak panels. | SQM | 6670.65 |
| E | In Teak wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm panels and 4 mm plain glass panes) | SQM | 6437.80 |
| F | In Country wood. 35 mm thick shutter with 4 mm plain glass panes. | SQM | 3034.10 |
| G | In Country wood. 35 mm thick shutter with 4 mm pin headed glass panes. | SQM | 2996.60 |
| H | In Country wood. 35 mm thick shutter with 3 mm pin headed glass panes. | SQM | 3007.70 |
| I | In Country wood. 35 mm thick shutter with 16 mm country wood panels. | SQM | 3166.70 |
| J | In Country wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm country wood panels and 4 mm plain glass panes) | SQM | 3104.45 |
| 0409 | Manufacture, supply and fixing in position of double leaved best wooden window shutters using 70 x 35 mm styles and rails, all as given below. All as per standard specifications & drawings. (Excluding window frame) Rate excludes window frame and furniture fittings. | | |
| A | In Teak wood. 35 mm thick shutter with 4 mm plain glass panes. | SQM | 3063.75 |
| B | In Teak wood. 35 mm thick shutter with 4 mm pin headed glass panes. | SQM | 3012.70 |
| C | In Teak wood. 35 mm thick shutter with 3 mm pin headed glass panes. | SQM | 3027.80 |
| D | In Teak wood. 35 mm thick shutter with 16 mm teak panels. | SQM | 3786.50 |
| E | In Teak wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm teak wood panels and 4 mm plain glass panes) | SQM | 3469.40 |
| F | In Country wood. 35 mm thick shutter with 4 mm plain glass panes. | SQM | 1824.45 |
| G | In Country wood. 35 mm thick shutter with 4 mm pin headed glass panes. | SQM | 1773.40 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| H | In Country wood. 35 mm thick shutter with 3 mm pin headed glass panes. | SQM | 1788.50 |
| I | In Country wood. 35 mm thick shutter with 16 mm country wood panels. | SQM | 2005.00 |
| J | In Country wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm country wood panels and 4 mm plain glass panes) | SQM | 1920.25 |
| 0410 | Manufacture, supply and fixing fully glazed swing type ventilator using best wooden frame of size 95 x 70 mm, wooden shutter of thickness 35 mm with glass panes including sizing and fixing 16mm dia. M.S. rods but excluding cost of M.S. rods, holdfasts and furniture fittings. (Excluding bottom frame for fixing over doors and windows.) | | |
| A | In Teak wood with 4 mm plain glass panes for shutter. | SQM | 4900.65 |
| B | In Teak wood with 3 mm pin headed glass panes for shutter. | SQM | 4868.25 |
| C | In Country wood with 4 mm plain glass panes for shutter. | SQM | 2419.10 |
| D | In Country wood with 3 mm pin headed glass panes for shutter. | SQM | 2386.70 |
| 0411 | Manufacture, supply and fixing fully glazed swing type ventilator using best wooden frame of size 95 x 70 mm, wooden shutter of thickness 35 mm with glass panes including sizing and fixing 16mm dia. M.S. rods but excluding cost of M.S. rods, holdfasts and furniture fittings. | | |
| A | In Teak wood with 4 mm plain glass panes for shutter. | SQM | 5584.50 |
| B | In Teak wood with 3 mm pin headed glass panes for shutter. | SQM | 5556.00 |
| C | In Country wood with 4 mm plain glass panes for shutter. | SQM | 2647.55 |
| D | In Country wood with 3 mm pin headed glass panes for shutter. | SQM | 2619.05 |
| 0412 | Manufacture, supply and fixing in position of fully glazed fixed type louvered ventilator using best wooden frame of size 75 x 50 mm and using 4 mm thick plain glass panes for louvers, all as per drawings and standard specifications.Rate includes supply and fixing of MS holdfasts. | | |
| A | In Teak wood | SQM | 4280.55 |
| B | In Country wood | SQM | 2064.20 |
| 0413 | Manufacture, supply and fixing in position of fully glazed shutter in best wooden frame of 35 mm thick for ventilator. Rate excludes ventilator frame and furniture fittings. | | |
| A | In Teak wood with 4 mm plain glass panes for shutter. | SQM | 2290.15 |
| B | In Teak wood with 3 mm pin headed glass panes for shutter. | SQM | 2246.05 |
| C | In Country wood with 4 mm plain glass panes for shutter. | SQM | 1442.40 |
| D | In Country wood with 3 mm pin headed glass panes for shutter. | SQM | 1398.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0414 | Labour charges for manufacturing the following wood work items either in teak or country wood and fixing in proper position at site of work. All as per standard specifications and drawings. Rate excludes cost of wood, furniture fittings and its fitting charges. | | |
| A | Fully panelled door shutter / window shutter (excluding door / window frame) | SQM | 580.00 |
| B | Partly glazed and partly panelled door shutter / window shutter/ fully glazed window shutter (excluding door / window frame) | SQM | 535.70 |
| C | Fully glazed shutter/shutter with frame for ventilator | SQM | 493.35 |
| 0415 | Labour charges for fixing doors, windows and ventilators including frames and shutters in position etc. complete.(wood or steel) | SQM | 118.90 |
| 0416 | Labour charges for fixing the following in proper position. | | |
| A | Shutter only for doors, windows, ventilators etc. | SQM | 23.80 |
| B | Frame only for doors, windows, ventilators etc. | EACH | 171.25 |
| 0417 | Cutting to size and fixing M.S rods/bars in window and ventilator frames and other petty works. (labour only) | K.G | 12.30 |
| 0418 | Supply and fixing M.S grills for windows, ventilators and also wherever necessary including a priming coat. All according to our design and specification. | K.G | 13.20 |
| 0419 | Supply of MS round or square bars at site of work for windows, ventilators, other petty works etc. | K.G | 49.50 |
| 0420 | Manufacture, supply and fixing in position of cupboard shutters with best teakwood frame of size 100 x 35 mm and 25 mm thick best quality prelaminated particle board (exterior grade) as flush shutters etc., complete, all as per standard specifications and drawings. Rate includes holdfasts but excludes furniture fittings. | SQM | 2214.00 |
| 0421 | Manufacture, supply and fixing in position of fly proof shutters with best teakwood frame of size 75 x 25 mm and 20 mm thick shutters using 50 x 20 mm teakwood styles and rails including supply and fixing of best quality galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm including cost of holdfasts, oxidised iron butt hinges and other fittings of anodised aluminium including providing locking arrangements etc., complete, all as per standard specifications. | SQM | 2248.65 |
| 0422 | Providing and fixing best teak wood of 12 mm thick and 150 mm wide for pelmet of doors and windows with necessary provision for fixing curtain rod. Rate excludes curtain rod. (Only horizontal length between supports will be measured and paid) | RM | 446.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0423 | Providing and fixing prelaminated particle board (exterior grade) of approved brand and quality 12 mm thick and 150 mm wide for pelmet of doors and windows with necessary provision for fixing curtain rod. Rate excludes curtain rod.(Only horizontal distance between supports will be measured and paid) | RM | 302.35 |
| 0424 | Providing and fixing curtain rods of the following. Rate includes cost of rods, cutting to required lengths, fixing in position etc. complete. | | |
| A | MS pipe nickel plated 20 mm dia (HD) with nickel plated brackets. | RM | 99.20 |
| B | Anodised aluminium tube of 20 mm dia with suitable brackets. | RM | 63.25 |
| 0425 | Providing and fixing best teakwood beading of size 50 x 25 mm on walls including supply and fixing of hooks at required intervals etc., complete. | RM | 84.75 |
| 0426 | Supply and fixing mild steel balustrade of overall height 90 cm fabricated with 40 x 5 mm M.S. flats and 15 mm M.S. square bars painted with one coat of red oxide primer, including supply and fixing of best teak wood hand rail of size 75 x 75 mm at top finished smooth. All as per standard specifications & drawings. | RM | 1577.15 |
| 0427 | Supply & fixing the following furniture fittings of approved brand & quality (ISI marked) in the appropriate position of doors, windows, ventilators, cupboards etc. with appropriate screws, nails etc., all as per standard specifications & instructions of Engineer in charge. | | |
| A | Hydraulic door closer - universal type (Medium duty) | EACH | 1425.45 |
| B | Hydraulic door closer - universal type ( Heavy duty) | EACH | 1507.00 |
| C | Brass Mortice lock 100 mm, 6 levers and a pair of brass lever handles | EACH | 492.40 |
| D | D type Anodised Aluminium handle - 75 mm | EACH | 20.90 |
| E | D type Anodised Aluminium handle - 100 mm | EACH | 31.90 |
| F | D type Anodised Aluminium handle - 125 mm | EACH | 35.75 |
| G | 250 x 12 mm Anodised Aluminium aldrop | EACH | 140.85 |
| H | 250 x 16 mm Anodised Aluminium aldrop | EACH | 170.50 |
| I | 300 x 16 mm Anodised Aluminium aldrop | EACH | 206.80 |
| J | 50 x 11/12 mm Anodized Aluminium tower bolt | EACH | 32.90 |
| K | 75 x 11/12 mm Anodized Aluminium tower bolt | EACH | 38.50 |
| L | 100 x 11/12 mm Anodized Aluminium tower bolt | EACH | 47.30 |
| M | 150 x 11/12 mm Anodized Aluminium tower bolt | EACH | 64.90 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| N | 200 x 11/12 mm Anodized Aluminium tower bolt | EACH | 99.00 |
| O | 250 x 11/12 mm Anodized Aluminium tower bolt | EACH | 143.00 |
| P | 300 x 11/12 mm Anodized Aluminium tower bolt | EACH | 176.00 |
| Q | 50 mm oxidised iron butt hinges (Heavy duty) | EACH | 10.45 |
| R | 125 mm oxidised iron butt hinges (Heavy duty) | EACH | 22.55 |
| S | 150 mm oxidised iron butt hinges (Heavy duty) | EACH | 43.45 |
| T | 125 mm oxidised iron parlimentary hinges (Heavy duty) | EACH | 42.35 |
| U | 150 x100 mm oxidised iron parlimentary hinges (Heavy duty) | EACH | 45.10 |
| V | 50 mm oxidised iron tower bolt (Heavy duty) | EACH | 20.90 |
| W | 100 mm oxidised iron tower bolt (Heavy duty) | EACH | 30.80 |
| X | 150 mm oxidised iron tower bolt (Heavy duty) | EACH | 42.90 |
| Y | 250 mm oxidised iron tower bolt (Heavy duty) | EACH | 60.50 |
| Z | 300 mm oxidised iron tower bolt (Heavy duty) | EACH | 77.00 |
| A1 | 250 x 16 mm oxidised iron Aldrop (Heavy duty) | EACH | 126.50 |
| B1 | 300 x 16 mm oxidised iron Aldrop (Heavy duty) | EACH | 129.80 |
| C1 | 200 mm brass iron hook and eye | EACH | 72.60 |
| D1 | 250 mm brass iron hook and eye | EACH | 78.65 |
| E1 | Anodised aluminium Hanging type door stopper | EACH | 31.90 |
| F1 | PTMT handle 125x34x24 mm | EACH | 38.50 |
| G1 | PTMT handle 150x34x24 mm | EACH | 42.90 |
| H1 | PTMT butt hinges 75x60x10 mm | EACH | 57.20 |
| I1 | PTMT butt hinges 100x75x10 mm | EACH | 72.60 |
| J1 | PTMT Tower bolt 152x42x18 mm | EACH | 82.50 |
| K1 | PTMT Tower bolt 202x42x18 mm | EACH | 99.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0428 | Providing and fixing cupboard shutter 25 mm thick, melamine faced prelaminated with flat pressed three layer particle board conforming to IS:12823 exterior grade (Grade I Type II) having one side decorative lamination of approved shade and other side balancing lamination including II class teak wood lipping of 25 mm wide & 12 mm thick with necessary screws, nickel plated bright finished M.S piano hinges etc. complete. | SQM | 1471.35 |
| 0429 | Providing and fixing cupboard shutter 25 mm thick particle board with teak veneering on one side & commercial veneering on the other side conforming to IS:3087 exterior grade (Grade I ) of approved make including II class teak wood lipping of 25 mm wide & 12 mm thick with necessary screws, nickel plated bright finished M.S piano hinges, etc. complete. | SQM | 1350.35 |
| 0430 | Providing and fixing factory made flush door shutter 30 mm thick made of prelaminated flat pressed three layer particle board conforming to IS:12823 exterior grade (Grade I Type II) having one side decorative lamination of approved shade and other side balancing lamination including II class teak wood lipping of 30 mm wide & 12mm thick with necessary screws, black enamelled M.S butt hinges, etc. complete. | SQM | 1477.20 |
| 0431 | Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin- charge | | |
| a | Extruded section profile size 48x40 mm | RM | 188.10 |
| b | Extruded section profile size 42x50 mm. | RM | 177.10 |
| 0432 | Providing and fixing to existing door frames, 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 2 mm (± 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 multichambered 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). | SQM | 2500.60 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0433 | Providing and fixing to existing door frames, 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. 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 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm (± 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. | SQM | 2610.55 |
| 0434 | Providing and fixing to existing door frames, 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762mm X 25 mm or less as per requirement with an average wall thickness of 1 mm (± 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. An M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm (± 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer’s specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places. | SQM | 2500.55 |
| 0435 | Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer’s specification and direction of Engineer-in-Charge. | RM | 409.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0436 | Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power.The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mmx 1 mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5 mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100 mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100 mm x 8 mm complete as per manufacturer's specifications and direction of Engineer-in-charge. | | |
| a | Non decorative finish. | SQM | 2482.30 |
| b | Decorative finish (both side wood grained finish). | SQM | 3078.50 |
| 0437 | Removing the damaged door shutter from door frame in buildings, conveying the same to site of work, dismantling the damaged bottom rail and other required portions, supply and replacing with suitable bottom rail of best country wood of maximum size 200x35 mm & length 775 mm and covered with supply & fixing of 28 gauge G.I sheet at the bottom on both sides of shutter to a width & height of 775 mm & 900 mm respectively including cutting, sizing, finishing, conveying and refixing the finished door shutter in proper position in buildings, all as per instructions of Engineer in charge. Rate also includes cost of all accessories such as nails, screws, fevicol etc. | EACH | 714.95 |
| 0438 | Removing the existing partition with door carefully from its position without damaging any portion of the partition, handing over the reusable items to the departmental stores / stacking at site. All as per the instructions of Engineer-in-charge. | | |
| A | Teakwood partition partly panelled and partly glazed | SQM | 123.20 |
| B | Teakwood / Aluminium partition panelled or glazed | SQM | 148.10 |
| 0439 | Conveying partition along with doors from departmental stores / stacks and fixing the same in position without damaging the frame work and glass. Rate includes cost of additional rubber gaskets, aluminium frame work and beading if required for fixing the glasses for panels rigidly in position, cost of all materials, labour, scaffolding, tools and plants and other incidentals etc. complete. All as per the instructions of Engineer-in-charge. | | |
| A | Teakwood partly panelled and partly glazed. | SQM | 651.45 |
| B | Teakwood / Aluminium partition Panelled / Glazed | SQM | 292.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **V - STEEL WORKS** | | |
| 0501 | Collection from BHEL stores and transporting the raw structural steel sections to the contractor's site fabrication shop, fabrication of steel work including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes raw structural steel sections which will be supplied by BHEL at stores at free of cost. | M.T | 12371.75 |
| 0502 | Collection from BHEL stores and transporting the raw structural steel sections to the contractor's site fabrication shop, fabrication of steel work including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes raw structural steel sections and all consumables which will be supplied by BHEL at stores at free of cost. | M.T | 9505.75 |
| 0503 | Collection from BHEL stores and transporting ERW/seamless steel tubes with necessary plates to the contractor's site fabrication shop, fabrication of ERW/seamless steel tubes with necessary plates etc. instead of structural steel sections for columns, trusses, purlins, tie runners etc. (all tubular) including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes ERW/seamless steel tubes, plates etc. which will be supplied by BHEL at stores at free of cost. | M.T | 13608.90 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0504 | Collection from BHEL stores and transporting ERW/seamless steel tubes with necessary plates to the contractor's site fabrication shop, fabrication of ERW/seamless steel tubes with necessary plates etc. instead of structural steel sections for columns, trusses, purlins, tie runners etc. (all tubular) including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes ERW/seamless steel tubes, plates etc. and all consumables which will be supplied by BHEL at stores at free of cost. | M.T | 10456.30 |
| 0505 | Carrying from stacks at erection site to erection positions and erection of fabricated steel work including all handling, conveying, assembling, hoisting, erecting in position and site welding and or bolting, alignment of structures, all as per drawings and standard specifications. Rate includes bolts & nuts, hire for welding tools and plants, labour etc., but excluding cost of fabricated components. If required, power will be given free of cost by BHEL. Weight of fasteners will not be accounted for payment. | M.T | 6667.90 |
| 0506 | Carrying from stacks at erection site to erection positions and erection of fabricated steel work including all handling, conveying, assembling, hoisting, erecting in position and site welding and or bolting, alignment of structures, all as per drawings and standard specifications. Rate includes hire for welding tools and plants, labour etc., but excluding all consumables such as electrodes, bolts, nuts, washers etc. which will be supplied by BHEL at Stores at free of cost and cost of fabricated components. If required, power will be given free of cost by BHEL. Weight of fasteners will not be accounted for payment. | M.T | 6364.10 |
| 0507 | Fabrication and fixing in position of M.S frames for cable trench cover slabs in required sizes using M.S angles, plates, flats etc., which will be supplied by BHEL at Stores at free of cost, all as per drawings and instructions of Engineer-in-charge. Rate includes conveyance of raw materials from BHEL stores to contractors fabrication shop, fabrication charges including cutting, welding, preparing and supplying DODL's for BHEL's approval, supply of fabricated frames at site of work, fixing in proper position etc., complete. | M.T | 7550.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0508 | Fabrication and fixing in position of M.S frames for cable trench cover slabs in required sizes using M.S angles, plates, flats etc., which will be supplied by BHEL at Stores at free of cost, all as per drawings and instructions of Engineer-in-charge. Rate includes conveyance of raw materials from BHEL stores to contractors fabrication shop, fabrication charges including cutting, welding, preparing and supplying DODL's for BHEL's approval, supply of fabricated frames at site of work, fixing in proper position etc., complete but excludes all consumables such as electrodes which will be supplied by BHEL at Stores at free of cost. | M.T | 6910.30 |
| 0509 | Conveying from BHEL stores to site of work cutting to size and fixing in position of 75 x 75 x 6 mm or other size M.S angles in required lengths for forming the rebates in cable trench (for fixing the cable trench cover slabs) including welding in position of dowel bars to the angles and embedding the angle iron frame in the flooring concrete in proper line and level, all as per drawings and instructions of Engineer-in-charge. Rate includes loading, unloading, handling, welding and other incidental charges, preparing and supplying of DODL's for approval etc. complete, but excluding cost of M.S angles and dowel bars which will be supplied by BHEL at Stores at free of cost. | M.T | 8041.55 |
| 0510 | Same as 0509 but excluding all consumables which will be supplied by BHEL at Stores at free of cost. (Also excludes energy charges) | M.T | 7397.25 |
| 0511 | Fabrication and fixing in position of M.S inserts out of M.S plates, flats, rounds, angles etc., including necessary lugs made of rounds or flats, sizing and cutting to required lengths, threading, bolting and welding as required and placing the same in position in both plain and reinforced cement concrete members, including adjusting the shuttering if necessary, tying and holding to correct level and line. Rate includes cost of all materials, labour etc., complete but excluding raw steel sections which will be supplied by BHEL at Stores at free of cost. | K.G | 28.2 |
| 0512 | Fabrication and fixing in position of M.S inserts out of M.S plates, flats, rounds, angles etc., including necessary lugs made of rounds or flats, sizing and cutting to required lengths, threading, bolting and welding as required and placing the same in position in both plain and reinforced cement concrete members, including adjusting the shuttering if necessary, tying and holding to correct level and line. Rate includes cost of all materials, labour etc., complete but excluding raw steel sections and all consumables which will be supplied by BHEL at Stores at free of cost. | K.G | 26.8 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0513 | Fabrication of various sizes steel partitions (not exceeding 4.00 x 2.40 m) using M.S angles for outer frame work and flats for vertical and horizontal stiffeners etc. Bottom panels are to be welded with M.S sheets for a height of one metre (approx.) and top panels with BRC fabric (75 x 25 mm) All as per drawings and as directed by the Engineer-in-charge. Rate includes providing necessary holes for inter connections and also base plates for fixing on the floor, all labour, electrodes, conveyance of raw materials from stores to fabrication site, etc. complete, but excluding cost of steel sections and BRC fabrics which will be supplied by BHEL at Stores at free of cost. | SQM | 247.95 |
| 0514 | Fabrication of various sizes steel partitions (not exceeding 4.00 x 2.40 m) using M.S angles for outer frame work and flats for vertical and horizontal stiffeners etc. Bottom panels are to be welded with M.S sheets for a height of one metre (approx.) and top panels with BRC fabric (75 x 25 mm) All as per drawings and as directed by the Engineer-in-charge. Rate includes providing necessary holes for inter connections and also base plates for fixing on the floor, all labour, electrodes, conveyance of raw materials from stores to fabrication site, etc. complete, but excluding cost of steel sections, BRC fabrics and all consumables which will be supplied by BHEL at Stores at free of cost. | SQM | 216.65 |
| 0515 | Erection of fabricated steel partitions including handling, leading, assembling, erecting in position, site bolting, revetting, site welding etc., wherever required including cost of drilling holes in concrete floor and grouting bolts for fixing the base plates of steel partitions wherever necessary, all as per instructions of Engineer in charge. Rate includes all labour, incidentals etc., complete. | SQM | 131.6 |
| 0516 | Erection of fabricated steel partitions including handling, leading, assembling, erecting in position, site bolting, revetting, site welding etc., wherever required including cost of drilling holes in concrete floor and grouting bolts for fixing the base plates of steel partitions wherever necessary, all as per instructions of Engineer in charge. Rate includes all labour, incidentals etc., complete but excluding all consumables which will be supplied by BHEL at Stores at free of cost. | SQM | 124.55 |
| 0517 | Fabrication of S.S tubes / ERW tubes to the design specified for railing. Rate includes conveyance of raw materials and fabricated railings, fabrication charges, preparation of DODLs, incidentals etc., complete. Tubes and other steel materials required for the work will be supplied by BHEL at Stores at free of cost. | M.T | 12371.75 |
| 0518 | Carrying from stacks to site of work and fixing in position in line, level and alignment of fabricated railings at places as directed by the Engineer-in-charge. Excavation for pits and concrete bed will be paid separately under relevant items. | M.T | 4857.50 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0519 | Providing holding down bolts of required sizes with nuts, washers etc. and fixing in proper level, line, alignment etc., all as per drawings and instructions of Engineer-in-charge. Rate includes cost of steel materials, bolts, nuts, washers, fabrication and machining charges, fixing, all labour etc. complete. | | |
| A | In M.S rounds including washer plates. | KG | 65.80 |
| B | Bolts including nuts & washers etc.complete in all sizes & lengths. | KG | 85.15 |
| 0520 | Conveying all types & sizes of holding down bolts, nuts, washers etc. from BHEL Stores to site of work and fixing in proper level, line, alignment etc., all as per drawings and instructions of Engineer-in-charge. Rate excludes cost of bolts, nuts, washers etc. | KG | 23.55 |
| 0521 | Providing and fixing in position of M.S rivets of required sizes at site of work. | KG | 116.55 |
| 0522 | Welding by gas plant or electric plant including transportation of plant to site of work, cost of consumables, labour charges etc. complete. | CM LENGTH | 2.65 |
| 0523 | Tightening of loosened bolts & nuts of all connections of steel structures such as columns, truss girders, trusses, crane girders, bracings, purlins etc. of buildings at all heights. Rate includes drilling holes wherever required, providing/replacement of bolts and nuts, (excluding cost of bolts and nuts), labour etc. Payment will be made based on the corresponding floor area of the buildings. | SQM | 12.60 |
| 0524 | Labour charges for making and fixing M.S fan hook of standard shape using M.S bar bent to shape with hooked ends in RCC slabs during laying including painting the exposed portion etc. complete. M.S bar will be supplied by BHEL at Stores at free of cost. | EACH | 26.60 |
| 0525 | Labour charges for making and fixing M.S fan hook of standard shape using M.S bar bent to shape with hooked ends in existing RCC slabs including cutting chase and making good to match with the existing one and painting the exposed portion of the hook etc. complete. M.S bar will be supplied by BHEL at Stores at free of cost. | EACH | 172.70 |
| 0526 | Removing cobwebs from the structures of buildings at all heights including cleaning of roof walls, undersurface of A.C sheets etc, complete. Rate includes providing working platforms, ladder, safety nets, labour etc, complete. Payment will be made based on the floor area of the buildings. | SQM | 5.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0527 | Supply and fixing rolling shutters of approved make, made of 80 x1.25 mm M.S laths with 1.25 mm thick top cover interlocked together through their entire length and joined together at end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation etc.complete including cost of providing and fixing necessary 27.5 cm long wire springs grade No.2 and M.S top cover of required thickness for rolling shutter. | SQM | 1912.65 |
| 0528 | Providing and fixing ball bearing for rolling shutters. | EACH | 413.30 |
| 0529 | Extra for providing mechanical device chain and crank operation for operating rolling shutters. | | |
| A | Exceeding 10.00 SQM and upto 16.80 SQM in area. | SQM | 630.25 |
| B | Exceeding 16.80 SQM in area. | SQM | 663.25 |
| 0530 | Conveying from BHEL stores to site of work and fixing rolling shutters in proper position, all as directed by the Engineer-in-charge. Rate includes loading, leading, unloading and fixing of roller shutter including side brackets, gear box, lubricating the bearings etc., complete and making it fit for operation. Labour charges only. | SQM | 276.60 |
| 0531 | Providing and fixing in position of collapsible steel shutters with vertical channels 20 x 10 x 2 mm and braced with flat iron diagonals 20 x 5 mm size with top and bottom rail of T-iron 40 x 40 x 6 mm with 40 mm dia steel pulleys complete with bolts, nuts, locking arrangements, stoppers, handles, including applying a priming coat of approved steel primer. | SQM | 4344.00 |
| 0532 | Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side / top / centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer , but excluding the cost of other fittings, complete all as per approved design.<br>Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size). | SQM | 1154.70 |
| 0533 | Fixing standard steel glazed doors, windows and ventilators in walls with 15 x 3 mm lugs 10 cm long embedded in cement concrete blocks 15 x10 x10 cm of 1:3:6 or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including fixing of glass panes with glazing clips and special metal-sash putty or metal beading with screws. (Only steel doors, windows and ventilators with lugs, glass panes cut to size and glazing clips or metal beading with screws shall be supplied by BHEL at Stores at free of cost) | SQM | 271.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0534 | Supply and fixing of glass panes with putty, glazing clips etc. for steel doors, windows, ventilators etc. Rate includes removal of broken glasses and old putty. | | |
| A | 3 mm pin headed glass panes. | SQM | 600.75 |
| B | 4 mm plain glass panes. | SQM | 665.80 |
| 0535 | Providing putty for glass panes. Rate includes removal of old putty, supply & applying new putty in a proper manner & required quantity at site of work, all as per instructions of Engineer in charge. | RM | 19.30 |
| 0536 | Providing and fixing in proper position of fan hook using 10 mm FSICHER SLM-N heavy duty ANCHOR fastener with clamp & bolts in the existing RCC roof slab. Rate includes cost of fan hook (fastener), drilling with power drilling machine to the required dia & depth in the RCC roof slab, inserting and fixing the fan hook in proper position, all labour and all other incidentals etc. complete. | EACH | 390.50 |
| 0537 | Providing and fixing oxidised M.S handle with necessary screws etc.complete. | | |
| A | 100 mm size | EACH | 22.45 |
| B | 125 mm size | EACH | 25.95 |
| 0538 | Providing polyester sun control film of approved brand (GARWARE or equivalent) and shade to glazed panels in doors / windows / ventilators / partitions etc.with proper adhesive, all after removing the existing damaged film if available etc. complete. All as per instructions of Engineer in charge. Rate includes cost of all materials, scaffolding charges, labour, all other incidentals etc., complete. | | |
| A | Non reflective Type - Regular grade | SQM | 420.15 |
| B | Non reflective Type - Premium Grade with Scratch Resisting Coating | SQM | 1011.95 |
| 0539 | Supply of Mild Steel sections such as channels, angles, T sections, flats, sheets, square bars, rods, tubes etc.at site of work and fabrication of steel work for gates, Y angles, purlins, trusses, any other small structures etc., all as per required design & drawing and erecting/fixing the same in proper alignment/position, level including site welding and or bolting/rivetting with necessary accessories such as keelmulai, keelpattai, hinges, tower bolts, aldrops etc.complete. Rate also includes providing two coats of synthetic enamel paint over one coat of red oxide primer. Payment will be made for the entire finished item of work. | MT | 72332.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0540 | Providing and fixing factory made ISI marked steel Paneled doors, windows and ventilators, side / top / centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer , but excluding the cost of other fittings, complete all as per approved design.,and providing and fixing 18 gauge MS sheets for panes, handles, peg stays, friction throw hinges etc., complete including a priming coat of approved steel primer. Rate includes dismantling the masonry and making good all damages etc., complete. | SQM | 2139.95 |
| 0541 | Conveying the Gantrail MKVII 122 mm wide steel reinforced vulcanized rubber pad from BHEL stores to site of work and lifting the same to EOT crane girder level, laying, aligning and fixing in proper position along the top of crane girder at 8.00 m from floor level including sizing and correct to alignment by using chisel and filing the edges to match with the adjoining pad. Rate includes all labour, tools & plants and all other incidentals etc., complete. | R.M | 91.50 |
| 0542 | Conveying the Gantrail weldable base type 9116/10/32 adjustable crane rail clip including captive bolts, nuts, washers and integral vulcanized rubber nose from BHEL stores to site of work, lifting to EOT crane girder level and fixing them by welding using special electrodes to hold the EOT crane rail in correct level and alignment. Rate includes all labour, scaffolding, tools & plants, tightening the clamps after rail erection etc., complete and all other incidentals. Special electrodes and power will be supplied by BHEL at free of cost. | SET | 137.25 |
| 0543 | Supply, drilling and driving 10/12 mm dia anchor fasteners of length not exceeding 125 mm at 500 mm both sides of crane rail having tensile & shear capacity of minimum 1.50 MT into the RCC crane girder as indicated in the drawing to secure cover plate rigidly with the crane girder. Rate includes cost of fasteners, labour for drilling holes, etc., complete, all as per the instructions of Engineer-in-charge. Rate also includes provision for wastage of fasteners or repeat work in driving of fasteners due to infringement of reinforcement if any and also filling up the unwanted holes drilled on concrete girder due to repeat work with suitable high strength non-shrink cement. | SET | 186.90 |
| 0544 | Removing the old rigidly welded rail clamp and bolt by gauging the welded joint without damaging the bolt. Rate includes labour, consumables, tools & plants and making good all damages by welding and grinding the top surfaces of girder. | SET | 52.15 |
| 0545 | Lifting the gantry rails up to 200 mm and packing the rails/sleepers with ballast metal /shim. Plates true to span, alignment and level including oiling and tightening the fish bolts and sleepers, fasteners and fixing new fasteners for the missing and sectioning the formation to the required profile, all as per the instructions of Engineer-in-charge. (Ballast metal, shim, oil, new fasteners etc. will be supplied by BHEL at stores at free of cost) Payment will be made per metre length of single rail. | RM | 40.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0546 | Providing fibre glass reinforcement with UV resistant polyurethane compound lining, to a minimum thickness of 3 mm on newly fabricated M.S gutters at floor level and jointing and filling the gap finishing etc., after erection at a height ranging from 12-24m from FFL, and making the gutters leak proof as per instructions of Engineer-in-charge. The work consists of thoroughly cleaning the surface of the gutters and applying an undercoat of resin over which the alternate layers(min. three layers) of fibre strand & resin to the required thickness before applying polyurethane compound coating at top with one coat of Gel coat with surface mat and polish to provide even surface, preparation of surface with fibre reinforced plastic with 50 microns thick polyurethane lining, testing, etc., complete all as per instruction of Engineer-in-charge. Rate quoted shall also include cost of labour, material with all taxes, scaffolding charges, if any and all other incidental charges etc., complete. | SQM | 956.40 |
| 0547 | Providing fibre glass reinforcement with UV resistant polyurethane compound lining, to a minimum thickness of 3 mm on M.S gutters of factory buildings at a height ranging from 12-24m from FFL, and making the gutters leak proof as per instructions of Engineer-in-charge. The work consists of removing the adjoining North light Glazing, Roofing Sheets and existing paint in the gutter completely and thoroughly cleaning the surface including the damaged portion of the gutters and applying an undercoat of resin over which the alternate layers(min. three layers) of fibre strand & resin to the required thickness before applying polyurethane compound coating at top with one coat of Gel coat with surface mat and polish to provide even surface, preparation of surface with fibre reinforced plastic with 50 microns thick polyurethane lining, testing, refixing the removed north light glazing and Roofing sheets and also filling with fibre reinforcement prior to lining in areas badly worn out both in the bottom as well as sides of gutters etc., complete all as per instructions of Engineer- in –charge. Rate quoted shall also include cost of labour, material with all taxes, scaffolding charges, if any and all other incidental charges etc., complete ( The Contractor is required to take all safety precautions during working and obtain work permit from the concerned departments. Working hour is restricted as it depends on shutdown by production department that may not be more than 4 hours at a stretch and only intermittent). | SQM | 1259.20 |
| 0548 | Supplying and laying rubberized and coloured (for 5mm thick layer) inter locking paver block of 50mm thickness M25 grade in flooring / pavement to take care of vehicular movements with proper line, level, alignment etc., all as per standard specification and instructions of Engineer-in-charge. The rate included cost of material, transportation, loading, unloading at site, labour for spreading and laying of paver block etc., complete over the sand bed of required thickness which will be paid under separate item. | SQM | 894.40 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0549 | Welding of 90 Lbs/CR 80 rail joints erected already in alignment in crane girders/gantry girder upto +14.00 meter including edge preparation, preheating welding using special type electrode (Elec grade 11018). The rate includes all labour charges, electrodes and incidental charges for dismantling the rail from its original position, edge preparation, preheating, welding, post heating as per the instructions of BHEL Engineer in charge. Also include cost of consumables for pre heating and post heating and labour charges for re fixing the 90 Lbs/CR 80 rail to alignment, level after welding etc., complete. | JOINT | 2170.30 |
| 0550 | Renewing the bottom rail and/or top rubber of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer. Rate includes removing the collapsible gate from its position including the frames, replacing the wornout portions wherever necessary with suitable new M.S Tee sections etc. and refixing the collapsible gate and making good the damages in floor, wall etc.with cement concrete etc.complete. Payment will be made only on weight basis for the replaced new M.S sections. | K.G | 116.50 |
| 0551 | Renewing wrought iron or M.S wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc.complete. | | |
| | A Wheel 50 mm dia and below | EACH | 113.65 |
| | B Wheel above 50 mm dia | EACH | 171.60 |
| 0552 | Supply and fixing cup type rail clamp with fittings over the insert plate which is embedded in the concrete. Rate includes welding including cost of consumables, all labour and other incidentals etc. complete, all as per instructions of Engineer-in-charge. | EACH | 252.45 |
| 0553 | Collection from BHEL stores and transporting of rails CR 80/R 45 etc to the contractor's site fabrication shop, straightening the rails using Gim screw or any other equipments, preparation of edge for welding the rail joints as per drawing and erecting in position at all elevations ( i.e, in floor or over the girders ) using cup type rail clamps with fittings. The scope includes rail alignment after erection, fixing in position, welding the joints by using approved electrode (E 11018 for CR 80 & E7018 for R 45 rails), pre heating & post heating the joints, grinding the joints neatly etc as per drawings and instruction of Engineer in charge.Rate shall include cost of providing one coat of red oxide primer as per IS specification and supply of DODL's for BHEL approval in compact disc with two copies of print outs. Quoted rate shall also include cost of consumables, hire charges for tools and plants, labour and incidentals etc complete but exclude cost of rails which will be supplied by BHEL at free of cost. | MT | 11500.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **VI - FLOORING** | | |
| 0601 | Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort)<br>Cement Consumption- 11.70 K.G /SQM | SQM | 190.70 |
| 0602 | Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort).<br>Cement Consumption -11.70 K.G/SQM | SQM | 383.75 |
| 0603 | Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to10 mm gauge hard broken granite stone chips, finishing the surfaces smooth, rounding of corners, curing, providing borders etc., complete, all as per standard specifications. (Ellispattern flooring)<br>Consumption of cement -14.60 K.G/SQM | SQM | 235.10 |
| 0604 | Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. , finishing the surfaces smooth, rounding of corners, curing, providing borders etc., complete, all as per standard specifications. (Ellispattern flooring).<br>Consumption of cement -14.60 K.G/SQM | SQM | 476.00 |
| 0605 | Providing red oxide skirting for walls, etc. with cement mortar 1:3, 12 mm thick, well mixed with red oxide powder of approved quality of 3.50 K.G per 50 K.G of cement used, finishing, polishing the surfaces smooth, curing etc., complete, all as per standard specifications.<br>Consumption of cement - 7.35 K.G/SQM | SQM | 161.45 |
| 0606 | Flooring with reinforced cement concrete of mix 1:2:4 using 40 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications.<br>Cement consumption - 320.00 K.G/CUM | CUM | 1942.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0607 | Floor finish with 40 mm thick granolithick flooring over the concrete base while it is wet for proper bonding, the bottom 25 mm thick consisting of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and the top 15 mm finished with hardening compound of proportion one part of hardonate (ironite or equivalent) four parts of cement and eight parts of 6 mm gauge blue granite stone chips (the proportion being by weight) including finishing and painting the sides with bitumen etc., complete, all as per standard specifications.<br>Cement consumptiom - 40 K.G/SQM | SQM | 425.15 |
| 0608 | Floor finish with 40 mm thick over concrete base while it is wet for proper bonding. 40 mm thick finish consists of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and finished smooth including painting the sides with bitumen etc., complete, all as per standard specifications.<br>Cement consumption - 57.60 K.G/SQM | SQM | 333.70 |
| 0609 | Providing, laying and finishing the top of floor / side walls with 20 mm thick mosaic tiles of approved make and quality over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm thick and tiles being joined, polished and finished smooth with necessary borders etc., complete including thorough cleaning of the surface before and after laying the tiles. All as per standard specifications. (Cost of tile shall include cost of cement for casting.) | | |
| A | For gray colour<br>Cement consumption - 12.90 K.G/SQM | SQM | 472.70 |
| B | For colours other than gray<br>Cement consumption - 12.90 K.G/SQM | SQM | 527.75 |
| 0610 | Finishing the top of floors / sides of walls with insitu mosaic comprising of a bedding layer of cement mortar 1:4, 12 mm thick followed by 20 mm thick mosaic wearing layer comprising of cement and mosaic chips of 6 mm and down graded in proportion of 1:2, laid, polished and finished with necessary borders etc., complete including thorough cleaning the surfaces before and after laying the finish, all as per standard specifications. | | |
| A | Gray colour<br>Cement consumption - 5.11 K.G/SQM | SQM | 465.55 |
| B | For colours other than gray<br>Cement consumption - 5.11 K.G/SQM | SQM | 520.55 |
| 0611 | Grinding and wax polishing of old mosaic floors, dado, skirting etc. in gray and all colours and finishing the surfaces smooth including filling the joints and voids by matching pigments, chips etc., complete, all as per standard specifications. Rate includes cost of materials, hire and running charges of machines, labour etc., complete. | SQM | 77.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0612 | Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications. | | |
| A | For Plain Ceramic tile of Size 305mm X 305mm X 6mm of all Colours<br>Cement consumption - 9.42 K.G/SQM | SQM | 1035.20 |
| B | For Plain Ceramic tile of Size 200mm X 200mm X 6mm of all Colours<br>Cement consumption - 9.42 K.G/SQM | SQM | 1053.70 |
| C | For First Quality Design Ceramic tile of Size 305mm X 305mm X 6mm of all Colours<br>Cement consumption - 9.42 K.G/SQM | SQM | 1215.40 |
| D | For First Quality Design Ceramic tile of Size 200mm X 200mm X 6mm of all Colours<br>Cement consumption - 9.42 K.G/SQM | SQM | 1299.90 |
| 0613 | Providing and laying minimum 5 mm thick ceramic glazed floor tiles of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications.<br>Cement consumption - 12.42 K.G/SQM | SQM | 672.55 |
| 0614 | Providing and 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 as approved by Engineer-in- Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete<br>Cement consumption - 12.42 K.G/SQM | SQM | 672.55 |
| 0615 | Providing and laying ceramic glazed floor tiles (of required thickness) of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 20 mm thick cement mortar 1:4, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications.<br>Cement consumption - 12.42 K.G/SQM | SQM | 678.65 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0616 | Providing and laying ceramic glazed wall tiles (of required thickness) of first quality of approved make confirming to IS:15622 and in all colours of required sizes in skirting, walls, risers of steps and dado laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3 plaster and joined with white cement using appropriate colour pigment etc.complete, all as per standard specifications.<br>Cement consumption - 12.42 K.G/SQM | SQM | 745.80 |
| 0617 | Fixing glazed/ceramic/vitrified floor tiles with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness. | SQM | 367.60 |
| 0618 | Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. | | |
| A | Kota stone slabs 20 to 25 mm thick polished<br>Cement consumption - 14.91 K.G/SQM | SQM | 1151.40 |
| B | Cuddappah slabs 20 to 25 mm thick single side polished<br>Cement consumption - 14.91 K.G/SQM | SQM | 879.20 |
| C | Shahabad slabs 20 to 25 mm thick single side polished - Tandur Gray<br>Cement consumption - 14.91 K.G/SQM | SQM | 851.95 |
| D | Shahabad slabs 20 to 25 mm thick single side polished - Tandur Green<br>Cement consumption - 14.91 K.G/SQM | SQM | 838.35 |
| E | Marble slabs 16 to 18 mm thick, polished - Rajnagar plain white<br>Cement consumption - 13.51 K.G/SQM | SQM | 1219.90 |
| F | Marble slabs 16 to 18 mm thick, polished - Green (Udaipur) colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1333.75 |
| G | Marble slabs 16 to 18 mm thick, polished - Pink colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1276.85 |
| H | Marble slabs 16 to 18 mm thick, polished - Black (Zebra/Galaxy) colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1093.40 |
| I | Granite slabs 16 to 18 mm thick, polished - S.White<br>Cement consumption - 13.51 K.G/SQM | SQM | 1440.95 |
| J | Granite slabs 16 to 18 mm thick, polished - Black (Andhra) Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 2298.45 |
| K | Granite slabs 16 to 18 mm thick, polished - Gray Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 2026.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| L | Granite slabs 16 to 18 mm thick, polished - Green Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1958.15 |
| M | Granite slabs 16 to 18 mm thick, polished - Sweet Green Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 2434.55 |
| N | Granite slabs 16 to 18 mm thick, polished - Red (Gem) Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1958.15 |
| O | Granite slabs 16 to 18 mm thick, polished - Blue (Lavender) Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 2230.40 |
| P | Granite slabs 16 to 18 mm thick, polished - Laga red Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 3659.60 |
| Q | Granite slabs 16 to 18 mm thick, polished - Steel grey Colour<br>Cement consumption - 13.51 K.G/SQM | SQM | 1754.00 |
| R | Vitrified Tiles of required thickness and 60 x 60 cm size (cement slurry is 3.30 Kg/SQM instead of 4.40 Kg/SQM)<br>Cement consumption - 12.42 K.G/SQM | SQM | 1228.35 |
| S | Precast cement Concrete Tiles of approved make of minimum thickness 22mm and required size and pattern (cement slurry is 3.30 Kg/SQM instead of 4.40 Kg/SQM)<br>Cement consumption - 12.42 K.G/SQM | SQM | 495.50 |
| 0619 | Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. | | |
| A | Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)<br>Cement consumption - 12.42 K.G/SQM | SQM | 800.95 |
| B | Granite tiles (polished), 8 to 10 mm thick (approx.) - P White<br>Cement consumption - 12.42 K.G/SQM | SQM | 873.75 |
| C | Granite tiles (polished), 8 to 10 mm thick (approx.) - Gray (Steel) Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 837.35 |
| D | Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 934.40 |
| E | Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 970.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| F | Granite tiles (polished), 8 to 10 mm thick (approx.) - Sweet Green Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 1261.95 |
| G | Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 970.80 |
| H | Granite tiles (polished), 8 to 10 mm thick (approx.) - Laga Red Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 1541.00 |
| I | Granite tiles (polished), 8 to 10 mm thick (approx.) - Raw Silk Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 873.75 |
| J | Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour<br>Cement consumption - 12.42 K.G/SQM | SQM | 837.35 |
| 0620 | Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. | | |
| A | Granite tiles (Polished) - Jet Black<br>Cement consumption - 10.44 K.G/SQM | SQM | 1691.95 |
| B | Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1342.20 |
| C | Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1378.60 |
| D | Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1378.60 |
| E | Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1245.15 |
| F | Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)<br>Cement consumption - 10.44 K.G/SQM | SQM | 1208.75 |
| 0621 | Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following | | |
| A | Granite tiles (Polished), 8 to 10 mm thick (approx.) - Jet Black<br>Cement consumption - 10.44 K.G/SQM | SQM | 1855.75 |
| B | Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1506.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| C | Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1542.40 |
| D | Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1542.40 |
| E | Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour<br>Cement consumption - 10.44 K.G/SQM | SQM | 1408.95 |
| F | Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)<br>Cement consumption - 10.44 K.G/SQM | SQM | 1372.55 |
| 0622 | Mirror polishing on marble work/granite work/stone work wherever required to give high gloss finish etc.complete. | SQM | 162.20 |
| 0623 | Extra for prefinished nosing to treads of steps of marble stones. | RM | 219.00 |
| 0624 | Extra for prefinished nosing in treads of steps of kota stones. | RM | 70.90 |
| 0625 | Supply and fixing homogeneous PVC sheets / tiles of approved brand, pattern, colour, shade & manufacture in flooring / skirting on a smooth and damp proof base using rubber based adhesives of approved quality including rolling with light wooden roller weighing about 5 K.G. etc.complete, all as per standard specifications. | | |
| A | 1.5 / 1.6 mm thick | SQM | 422.05 |
| B | 2 mm thick | SQM | 618.40 |
| 0626 | Supply and laying roughly dressed cut stone slabs of required sizes and thickness over sand bed or mortar bed, excluding pointing, all as per standard specifications. Rate excludes cost of sand bed/mortar bed. | CUM | 4330.90 |
| 0627 | Labour charges for edge preparation (NOZING) and polishing of the laid granite slab on the working platform, table etc. , The rate includes charges for required grinding machine, labour etc., complete. All as per the instructions of Engineer-in-charge | R.M | 181.95 |
| 0628 | Flooring with reinforced cement concrete of mix 1:2:4 using 20 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications.<br>Cement consumption - 320.00 K.G/CUM | CUM | 2119.70 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **VII - ROOFING** | | |
| 701 | Carrying , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, North light curves, end curves, etc., for roofing at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs etc., complete. All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of self tapping/ self drilling screws with EPDM washers etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, cost of providing life line and other provisions for safety, scaffolding and all other incidental charges etc., complete but excluding cost of Aluminium zinc alloy coated high tensile steel sheets and its accessories such as ridge pieces, barge boards, curves, etc., which will be supplied by BHEL at Stores at free of cost. The payment will be made for the actual laid area only. | SQM | 88.60 |
| 702 | Carrying , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., for side sheeting at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every valleys, etc., complete .All as per drawings, manufacturers specifications and instructions of Engineer-in-charge ..Rate includes cost of self tapping/ self drilling screws with EPDM washers etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, cost of providing life line and other provisions for safety, scaffolding and all other incidental charges etc., complete but excluding cost of Aluminium zinc alloy coated high tensile steel sheets and its accessories such as ridge pieces, barge boards, curves, etc., which will be supplied by BHEL at Stores at free of cost. The payment will be made for the actual laid area only. | SQM | 114.35 |
| 703 | Supplying at site of work , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, North light curves, end curves, etc., as per technical specifications given in note below for roofing at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs etc., complete. All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of all materials like colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., wherever required self tapping / self drilling screws with EPDM washers at every ribs etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, providing lifeline and other provisions for safety, and all other incidental charges etc., complete. The payment will be made for the actual laid area only.<br>Note: (1)The Aluminium zinc alloy coated high tensile steel sheets and specials shall be 0.47 to 0.50mm thick (TCT) (Aluminium around 55%, Zinc around 43%) alloy coated high tensile steel (Yield strength 550 MPA) colour coated rib profile sheets as per ASTM A792M, coating standard as per AS 1397-1933 Conforming to AZM 150 (Min Coating mass of 150 gsm) having cover width of 1000 plus or minus 10mm and over all width of 1060mm of any length to suit site conditions | SQM | 559.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
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| | (2) About 90% area of the Aluminium zinc alloy coated high tensile steel sheets shall be colour coated with Light Blue RAL 5012 and 10% of the covered area is of with off white. All ridge pieces and barge boards are of white.<br>(3) The Aluminium zinc alloy coated high tensile steel sheets shall be Pre-Primed with a Primer of 5µm and finished with a final paint coat of 17-20 µm on top surface. A single backing coat of 7-10µm should be applied on reverse side | | |
| 704 | Supplying at site of work , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., as per technical specifications given in note below for side sheeting at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every valleys, etc., complete .All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of all materials like colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, self tapping / self drilling screws with EPDM washers at every valleys, etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, providing lifeline and other provisions for safety, and all other incidental charges etc., complete. The payment will be made for the actual laid area only.<br>Note: (1)The Aluminium zinc alloy coated high tensile steel sheets and specials shall be 0.47 to 0.50mm thick (TCT) (Aluminium around 55%, Zinc around 43%) alloy coated high tensile steel (Yield strength 550 MPA) colour coated rib profile sheets as per ASTM A792M, coating standard as per AS 1397-1933 Conforming to AZM 150 (Min Coating mass of 150 gsm) having cover width of 1000 plus or minus 10mm and over all width of 1060mm of any length to suit site conditions<br><br>(2) About 90% area of the Aluminium zinc alloy coated high tensile steel sheets shall be colour coated with Light Blue RAL 5012 and 10% of the covered area is of with off white. All ridge pieces and barge boards are of white.<br>(3) The Aluminium zinc alloy coated high tensile steel sheets shall be Pre-Primed with a Primer of 5µm and finished with a final paint coat of 17-20 µm on top surface. A single backing coat of 7-10µm should be applied on reverse side | SQM | 585.60 |
| 705 | Supplying at site of work, hoisting and fixing in position of 2mm thick embossed clear poly carbonate roof light sheets in specified locations and at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs, etc., complete to match the profile of Aluminium zinc alloy coated high tensile steel roof sheets, as per instructions of Engineer-in- charge. The rate includes cost of poly carbonate sheets ,self tapping / self drilling screws with EPDM washer, at every ribs, and labour charges, all scaffolding charges, tools and plants and all other incidental charges etc., complete | SQM | 1540.90 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 706 | Supplying roof extractors ( Turbo Air Ventilators ) of dia 600mm or thereabouts, fixing in position on AC / Aluminium zinc alloy coated high tensile steel sheet roofs at all heights with necessary screws,, bolts etc., and finishing to match with existing roof. Rate to include cost of all labour charges for fixing the roof extractors with necessary cutting of sheets to the required size ,drilling to suit the screws/ bolts, and finishing to match the existing profile including cost of roof extractors / ventilators. All as per manufacturers specifications and as directed by the Engineer in charge | EACH | 8800.00 |
| 0707 | Supply and fixing corrugated fibre glass reinforced polyester translucent roof light sheets of all colours including white of following thickness to match with the existing A.C. sheet roofing including cost of G.I. bolts, nuts, washers and bitumen washers etc., complete. Payment will be based on the laid area. | | |
| A | FRP Sheet 1 mm thick | SQM | 474.60 |
| B | FRP Sheet 2 mm thick | SQM | 791.80 |
| 0708 | Supply and fixing in position of galvanised iron plain sheets of 1.60 mm thick for flashing using G.I bolts, nuts, limpet washers etc. complete bent to shape and fixed in walls with cement mortar 1:3, all as per drawings and specifications. | SQM | 824.75 |
| 0709 | Conveying G.I sheets from BHEL stores to site of work, bent to shape and fixing in proper position for flashing fixed with G.I bolts, nuts, limpet washers etc., complete and fixed in walls with cement mortar 1 : 3, all as per drawings and specifications. G.I sheet alone will be supplied by BHEL at Stores at free of cost. | SQM | 445.05 |
| 0710 | Supply and fixing in position of 6 mm thick wired glass in roof north light glazing including straightening the aluminium astrangle as required. Rate includes cost of glass, labour etc. complete. | SQM | 988.70 |
| 0711 | Conveying from BHEL stores to site of work 6 mm thick wired glass and fixing in position for roof north light glazing including straightening the aluminium astrangle as required. Rate includes labour, conveyance and other incidentals, removing the broken glasses from its position etc.complete. | SQM | 102.25 |
| 0712 | Providing weathering course on top of roof slab with 20 mm size brick jelly and pure lime (no sand) in the proportion of 32 : 12.5 to the required thickness, well beaten with wooden battens, so as to secure adequate slope, all as per standard specifications and instructions of Engineer-in-charge. | CUM | 3061.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0713 | Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick and of approved brand & size, set in cement mortar 1:3 with an admixture of crude oil at 10% by weight of cement, 12 mm thick bedding layer including pointing the tiles with the same oiled mortar etc., complete, all as per standard specifications. | SQM | 373.30 |
| | Cement consumption - 9.13 K.G/SQM | | |
| 0714 | Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Tiles and mendo non tar plast cement will be supplied by BHEL at stores at free of cost.) | SQM | 118.60 |
| 0715 | Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Only Tiles will be supplied by BHEL at stores at free of cost). | SQM | 110.90 |
| 0716 | Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement & three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. Cement, tiles and bitumen compound will be supplied by BHEL at stores at free of cost. | RM | 176.40 |
| 0717 | Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement and three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. The rate shall also include cost of tiles.Cement and bitumen compound will be supplied by BHEL at stores at free of cost. | RM | 205.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0718 | Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick of approved brand and size set in CM 1:3 with Roff plaster master plus solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Roff plaster master and required tiles will be supplied by BHEL at Stores at free of cost. | SQM | 354.05 |
| 0719 | Same as per item No. 0718 but required tiles will also be supplied by BHEL at Stores at free of cost. | SQM | 85.25 |
| 0720 | Labour charges for removing the damaged weathering course tiles and laying with new tiles set in CM 1:3 with Roff plaster master water solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per standard specifications. Tiles and Roff plaster master will be supplied by BHEL at Stores at free of cost. | | |
| A | 1 to 5 tiles at one spot. | EACH | 37.40 |
| B | Beyond 5 but upto 10 tiles at one spot. | EACH | 63.85 |
| 0721 | Rectifying to the weathering course tile joints by scraping the old mortar joints to a minimum depth of 12 mm with wire brush and cleaning the surface of all dirt, loose mortar etc., pointing the grooved joints with CM 1:3 thoroughly mixed with Roff plaster master solution (100 ml. of plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement), finishing the pointed joints smoothly, proper curing etc. complete. Roff plaster master liquid will be supplied by BHEL at Stores at free of cost. | SQM | 101.30 |
| 0722 | Rectifying to the corners between wall and roof slab by removing the brick work and concrete at least to a depth of 25 mm along the corners horizontally, clearing the opened corners off all dirt and filling with roofing bituminous compound pressed gently to form smooth concaved corners and finishing the surface with CM 1:3, 12 mm thick for a maximum width of 25 cm, thoroughly mixed with Roff plaster master solution (100 ml Roff plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement) to a neat finish. Bituminous compound & Roff plaster master liquid will be supplied by BHEL at Stores at free of cost. | RM | 50.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0723 | Conveying from BHEL stores to site of work, hoisting and fixing in position of 4 mm / 6 mm thick multi walled clear ( UV coated ) polycarbonate sheet for north light glazing runner ( inclined & vertical ) as per drawing including provision of suitable aluminium frames as required. The scope of work includes supply of aluminium frames ( top & bottom) in required profiles fitted with EPDM rubber gaskets and fixing in the glazing runner using SDST screws of approved make and polycarbonate sheets are suitably placed between the aluminium frames before driving the top frame screws all as per Drg.no and as per the instructions of Engineer in Charge. The top and bottom portion of polycarbonate sheets shall be closed with aluminium U channels to prevent dust and insects. Rate shall include cost of aluminium frames, U channels, EPDM rubber gaskets, SDST screws required labour, tools & plants, etc., except polycarbonate sheets which will be supplied by BHEL at free of cost | SQM | 1179.50 |
| 0724 | To collect and cleaning of all the damaged north light glazing materials (polycarbonate sheets) at roof top for all heights and removing/repairing the north light glazing bars (aluminium beading) wherever required in line, level and alignment as per the instructions of Engineer in charge. The aluminium beadings and polycarbonate sheets shall be re fixed using 2 nos of 50mm X 6mm MS Hexagonal bolts, nuts & washersat top horizontal 8 nos of 35mm X 12mm Self drilling fasteners with EPDM washers at both the vertical sides and 2 nos of 50mm X 12mm self drilling screws with EPDM washers at bottom horizontal in each panel. The rate shall include cost of all labour charges, incidental charges for removing repairing and cost of all required fasteners for re fixing work but excludes cost of polycarbonate sheets and aluminium beading which will be supplied at free of cost. Payment will be made only for the actual area of repair work executed. | SQM | 116.00 |
| 0725 | Supplying at site of work, hoisting and fixing in position of 4 / 6mm thick multiwalled clear (UV coated) Polycarbonate sheet for north light glazing / glazing in monitor type roof to suit the rows of glazing runner (inclined and vertical) as per drawing including provision of suitable aluminium frames as required. The scope of work includes supply of polycarbonate sheets,aluminium frames (top & bottom) in required profile fitted with EPDM rubber gaskets and fixing in the glazing runner using SDST screws of approved make and the polycarbonate sheets are suitably placed between the aluminium frames before driving the top frame screws all as per standard specification , instructions of Engineer-in-charge. The top and bottom portion of polycarbonate sheets shall be closed with aluminium U channels to prevent dust and insects. Rate shall include cost of polycarbonate sheets, aluminium frames, U channels, EPDM rubber gaskets, SDST screws, required labour, tools and plants etc.,complete. | SQM | 1800.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **VIII - FINISHING** | | |
| 0801 | Plastering with cement mortar as per standard specifications. | | |
| A | In cement mortar 1:3, 12mm thick<br>Cement Consumption - 7.35 K.G/SQM | SQM | 93.25 |
| B | In cement mortar 1:4, 12mm thick<br>Cement Consumption - 5.47 K.G/SQM | SQM | 93.05 |
| C | In Cement mortar 1:5, 12mm thick<br>Cement Consumption - 4.46 K.G/SQM | SQM | 92.95 |
| D | In cement mortar 1:6, 12mm thick<br>Cement Consumption - 3.60 K.G/SQM | SQM | 92.85 |
| E | In cement mortar 1:3, 15mm thick<br>Cement Consumption - 8.77 K.G/SQM | SQM | 107.30 |
| F | In Cement mortar 1:4, 15mm thick<br>Cement Consumption - 6.54 K.G/SQM | SQM | 107.05 |
| G | In Cement mortar 1:5, 15mm thick<br>Cement Consumption - 5.33 K.G/SQM | SQM | 106.90 |
| H | In Cement mortar 1:6, 15mm thick<br>Cement Consumption - 4.30 K.G/SQM | SQM | 106.80 |
| I | In Cement mortar 1:3, 20mm thick<br>Cement Consumption - 11.42 K.G/SQM | SQM | 125.20 |
| J | In Cement Mortar 1:4, 20mm thick<br>Cement Consumption - 8.51 K.G/SQM | SQM | 124.90 |
| K | In Cement mortar 1:5, 20mm thick<br>Cement Consumption - 6.94 K.G/SQM | SQM | 124.70 |
| L | In Cement mortar 1:6, 20mm thick<br>Cement Consumption - 5.60 K.G/SQM | SQM | 124.60 |
| 0802 | Damp proof course with cement mortar 1:3, 12 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications.<br>Cement Consumption - 7.35 K.G/SQM | SQM | 108.85 |
| 0803 | Damp proof course with cement mortar 1:3, 20 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications.<br>Cement Consumption - 11.42 K.G/SQM | SQM | 149.35 |
| 0804 | Damp proof course with cement mortar 1:3, 12 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications.<br>Cement Consumption - 7.35 K.G/SQM | SQM | 99.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0805 | Damp proof course with cement mortar 1:3, 20 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications.<br>Cement Consumption - 11.42 K.G/SQM | SQM | 134.15 |
| 0806 | Ceiling plastering with cement mortar 1:3, 6mm thick as per standard specifications.<br>Cement Consumption - 3.67 K.G/SQM | SQM | 82.10 |
| 0807 | Plain cement mortar bands of 12 mm thick in cement mortar 1:4 to the specified width as per standard specifications.<br>Cement Consumption - 5.32 K.G/SQM | SQM | 228.85 |
| 0808 | Stucco plastering 12 mm thick with cement mortar 1:3 (1 cement & 3 coarse aggregate of 6 to 12 mm size) over a backing plastering, all as per standard specifications. (Backing plaster will be paid for separately)<br>Cement Consumption - 7.30 K.G/SQM | SQM | 96.55 |
| 0809 | Exposed aggregate plastering with crushed stone graded from 6 to 12 mm nominal size dashed over and including fresh plaster in cement mortar 1:3, 12mm thick over a backing coat of cement plaster (which will be paid separately), all as per standard specfications.<br>Cement Consumption - 7.30 K.G/SQM | SQM | 128.15 |
| 0810 | Finishing the plastered surfaces with a floating coat of cement (punning), all as per standard specifications.<br>Cement Consumption - 2. 20 K.G/SQM | SQM | 21.70 |
| 0811 | Flush/Ruled pointing on stone work with cement mortar 1:3 as per standard specifictions.<br>Cement Consumption 1.17 K.G/SQM | SQM | 114.05 |
| 0812 | Pointing to rough stone dry packing in aprons and revetments including grouting to a depth of 40 mm with cement mortar 1:3, all as per standard specifications.<br>Cement Consumption 1.84 K.G/SQM | SQM | 62.90 |
| 0813 | Flush pointing with cement mortar 1:3 for stone slab pavement or precast slab pavement or tiling works etc., all as per standard specifications.<br>Cement Consumption 2.35 K.G/SQM | SQM | 95.80 |
| 0814 | Providing black board in walls in cement mortar 1:2 mixed with black oxide over rough plastered surface in cement mortar 1:4, 12 mm thick and providing 25 mm border alround in cement mortar 1:3 neatly rounded including providing and fixing with teak wood beading 50 x 25 mm on top of board and hooks and chalk stand on the bottom of board etc., all as per standard specifications.<br>Cement Consumption 13.20 K.G/SQM | SQM | 836.30 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0815 | White washing on surfaces using best shell lime to give an even shade including cleaning, brushing of walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour etc., complete. | | |
| A | Three or more coats | SQM | 10.55 |
| B | Two coats | SQM | 5.95 |
| C | One coat | SQM | 4.25 |
| 0816 | White washing on surfaces using Janathacem or equivalent material to give an even shade including cleaning, brushing of walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour, curing etc., complete. | | |
| A | Three coats | SQM | 11.55 |
| B | Two coats | SQM | 7.00 |
| C | One coat | SQM | 4.25 |
| 0817 | Colour washing such as green, blue or buff on surfaces to give an even shade including cleaning, brushing walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour, etc., complete. | | |
| A | Two or more coats with a base coat of white washing with lime | SQM | 13.70 |
| B | Two coats | SQM | 7.80 |
| C | One coat | SQM | 4.55 |
| 0818 | Removing white or colour wash by scraping, sand papering and preparing the surfaces smooth including necessary repairs to scratches etc. complete. | SQM | 5.50 |
| 0819 | Applying one coat of cement primer of approved brand and manufacturer on wall surfaces. | SQM | 29.25 |
| 0820 | Painting walls with water proofing cement paint of approved brand and shade on surfaces to give an even shade including cleaning, preparing the surfaces, curing etc., complete. | | |
| A | Three coats ( A priming coat of cement primer & two coats of water proofing cement paint ) | SQM | 76.75 |
| B | Two coats | SQM | 47.50 |
| C | One coat | SQM | 30.00 |
| 0821 | Painting with sandtex matt of approved brand and shade on surfaces to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications. | | |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A | Three coats (A priming coat of approved cement primer and two coats of sandtex matt) | SQM | 109.50 |
| B | Two coats | SQM | 79.10 |
| C | One coat | SQM | 46.45 |
| 0822 | Applying one coat of distemper primer of approved brand and manufacture on wall surfaces. | SQM | 30.35 |
| 0823 | Distempering using oil bound washable distemper of approved brand and shade on surfaces including cleaning, brushing, preparing the surfaces even and sand papered smooth in accordance with standard specifications. | | |
| A | Three coats (A priming coat with approved primer and two coats of distempering). | SQM | 70.55 |
| B | Two coats | SQM | 40.20 |
| C | One coat | SQM | 27.35 |
| 0824 | Painting with ready mixed plastic emulsion paint of approved brand and shade on surfaces to give an even shade including thorough scraping, removal of dirt, applying necessary plaster of paris, putty etc.complete, all as per standard specifications. | | |
| A | Three coats (A priming coat with approved primer and two coats of plastic emulsion paint). | SQM | 85.90 |
| B | Two coats | SQM | 55.55 |
| C | One coat | SQM | 37.55 |
| 0825 | Painting with synthetic enamel paint of approved brand and shade on surfaces to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications. | | |
| A | Three coats (A priming coat with approved primer and two coats of synthetic enamel paint). | SQM | 97.90 |
| B | Two coats | SQM | 67.55 |
| C | One coat | SQM | 43.55 |
| 0826 | Removing dry or oil bound distemper / water proofing cement paint / paint by scraping, sand papering and preparing the surfaces smooth including necessary repairs to scratches etc., complete. | SQM | 7.25 |
| 0827 | Varnishing with varnish of approved brand and manufacture to give an even shade, all as per standard specifications. | | |
| A | Three coats (An under coat with flatting varnish and two coats of copal varnish) | SQM | 93.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| B | Two coats | SQM | 62.60 |
| C | One coat | SQM | 40.95 |
| 0828 | Polishing with french polish including a coat of wood filler to give an even surface, including cleaning the surfaces of all dirt, dust and sand papered smooth, all as per standard specifications. | | |
| A | Two coats | SQM | 180.30 |
| B | One coat | SQM | 94.25 |
| 0829 | Painting with aluminium paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications. | SQM | 61.45 |
| A | Two coats. | | |
| B | One coat | SQM | 39.15 |
| 0830 | Painting with black anti corrosive bitumastic paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications. | | |
| A | Two coats. | SQM | 45.55 |
| B | One coat | SQM | 30.60 |
| 0831 | Painting with black board paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications. | | |
| A | Two coats. | SQM | 59.85 |
| B | One coat | SQM | 38.75 |
| 0832 | Lettering with paint of approved brand, shade and manufacture of 1 cm Height. | | |
| A | In synthetic enamel paint | EACH | 1.90 |
| B | In black japan paint | EACH | 1.85 |
| 0833 | Painting one priming coat with approved primer on surfaces including preparing the surfaces by thoroughly cleaning oil, grease, dirt and other foreign matters and scoured with wire brushes, fine steel wool scrapers and sand paper, all as per standard specifications. | | |
| A | Zinc Chromate primer | SQM | 28.35 |
| B | Red oxide primer | SQM | 20.40 |
| 0834 | Painting one priming coat with approved primer over structural steel works in roof structures, columns etc., including preparing the surfaces by thoroughly cleaning oil, grease, dirt and other foreign matters and scoured with wire brushes, fine steel wool scrapers and sand paper, all as per standard specifications. | | |
| A | Zinc Chromate primer | MT | 955.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| B | Red oxide primer | MT | 562.35 |
| 0835 | Painting (excluding priming coat) on structural steel works in roof structures, columns etc.with synthetic enamel paint of approved brand and shade, brushing to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, scaffolding charges etc.complete. All as per standard specifications. | | |
| A | Two coats | MT | 1580.50 |
| B | One coat | MT | 937.20 |
| 0836 | Painting (excluding priming coat) on structural steel works in roof structures, columns etc.with aluminium paint of approved brand, brushing to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, scaffolding charges etc.complete. All as per standard specifications. | | |
| A | Two coats | M.T | 1461.85 |
| B | One coat | M.T | 859.35 |
| 0837 | Providing black board in walls in cement mortar 1:2 mixed with black oxide over rough plastered surfaces in cement mortar 1:4, 12 mm thick and providing 25 mm border alround in cement mortar 1:3, neatly rounded etc. complete.<br>Cement Consumption 13.20 K.G/SQM | SQM | 206.35 |
| 0838 | Repairs to plaster of thickness 12 to 20 mm in patches of area 2.5 Sqm and under with cement mortar 1:4 including cutting the patches in proper shape, preparing and plastering the surface of the walls completely including disposal of rubbish within a lead of 50 metre.<br>Cement Consumption 6.95 K.G/SQM | SQM | 145.35 |
| 0839 | Removal of all nails, screws, wooden plugs etc. from the walls, chipping the plastering of small holes caused by removal, cleaning and finishing good the same with cement mortar etc. complete in Quarters. | EACH | 107.30 |
| 0840 | Painting with exterior emulsion paint (ACE or any other equivalent and approved brand) of approved shade on surfaces to give an even shade including preparing the surfaces, removal of dirt, thorough cleaning by watering etc., all as per standard specifications. Rate includes cost of necessary plaster of paris and putty wherever required, labour and all incidentals etc.complete. | | |
| A | Three coats (One coat of Primer of approved brand with two coats of Paint) | SQM | 74.80 |
| B | Two coats | SQM | 62.05 |
| C | One coat | SQM | 39.85 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0841 | Painting with exterior emulsion paint (ACE or any other equivalent and approved brand) of approved shade on STUCCO/EXPOSED AGGREGATE surfaces to give an even shade including preparing the surfaces, removal of dirt, thorough cleaning by watering etc., all as per standard specifications. Rate includes cost of necessary plaster of paris and putty wherever required, labour and all incidentals etc.complete. This is applicable only for STUCCO/EXPOSED AGGREGATE surfaces. | | |
| A | Three coats (One coat of Primer of approved brand with two coats of Paint) | SQM | 94.50 |
| B | Two coats | SQM | 75.35 |
| C | One coat | SQM | 48.70 |
| 0842 | Painting with Epoxy paint (two or more coats) at all locations, prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surfaces etc.complete. | | |
| A | On steel work | SQM | 95.15 |
| B | On concrete work | SQM | 97.50 |
| 0843 | Extra charges for plastering to exterior walls of height more than 13.50 metre from plinth level for every additional height of 3 metre or part thereof. | SQM | 30.90 |
| 0844 | Extra charges for plastering to spherical ceiling. | SQM | 56.70 |
| 0845 | Labour charges for painting with primer/plastic emulsion paint/synthetic enamel paint/aluminium paint/anti corrosive bitumastic paint/black board paint/chlorinated rubber paint or any other paint on required surfaces to give an even shade including scraping, cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications. Rate excludes cost of primer and paint. Required primer and paint will be issued by BHEL at stores at free of cost. | | |
| A | For one priming coat with primer | SQM | 22.30 |
| B | For three coats (A priming coat & two coats of painting or directly three coats of painting) | SQM | 59.45 |
| C | For Two coats of painting | SQM | 37.10 |
| D | For one coat of painting | SQM | 26.20 |
| 0846 | Applying two coats of Alltek Superfine (interior plaster) putty to a thickness of 2mm over plastered surface including sand papering and preparing the surface smooth and there after applying one priming coat of Alltek primer and two coats of plastic emulsion paint of approved brand and shade, all as per instructions of Engineer-in-charge. | SQM | 289.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **IX - ROAD WORKS** | | |
| 0901 | Supply and stacking the following to standard gauge at site of work, all as per instructions of Engineer-in-Charge. | | |
| A | Soling stones 15 cm average thickness (measured in stacks will be reduced by 15 % for payment) | CUM | 298.00 |
| B | 53 mm IRC size metal (measured in stacks will be reduced by 7.5 % for payment) | CUM | 782.55 |
| C | 37.50 mm IRC size metal / 37.5 or 40 mm Stone metal ISS (measured in stacks will be reduced by 7.5 % for payment) | CUM | 1029.90 |
| D | 22.40 mm IRC size metal (No voids) | CUM | 1269.45 |
| E | 11.20 mm IRC size metal (No voids) | CUM | 837.15 |
| F | 6 mm IRC size metal (No voids) | CUM | 647.95 |
| G | River sand (No voids) | CUM | 450.55 |
| H | Gravel / Red earth (No voids) | CUM | 240.85 |
| I | Earth ( measured in stacks will be reduced by 20 % for payment ) | CUM | 207.30 |
| J | Cattle manure ( measured in stacks will be reduced by 8 % for payment ) | CUM | 371.75 |
| K | IRC graded stone aggregate of size range from 90 to 45 mm (measured in stacks will be reduced by 7.5 % for payment) | CUM | 539.00 |
| L | IRC graded stone aggregate of size range from 63 to 45 mm (measured in stacks will be reduced by 7.5 % for payment) | CUM | 680.00 |
| M | IRC graded stone aggregate of size range from 53 to 22.4 mm (measured in stacks will be reduced by 7.5 % for payment) | CUM | 930.00 |
| 0902 | Supply RCC pipes (NP2 Class) of following sizes with collars at site of work, lowering to trench, laying to proper grade and alignment, joining the collars with stiff mixture of cement mortar 1 : 2, testing of joints etc., but excludes cost of cement which will be supplied by BHEL at stores at free of cost. | | |
| A | 150 mm dia<br>Cement Consumption - 0.60 KG/ R.M | R.M | 333.95 |
| B | 250 mm dia<br>Cement Consumption - 0.90 KG/ R.M | R.M | 443.20 |
| C | 300 mm dia<br>Cement Consumption - 1.10 KG/ R.M | R.M | 486.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| D | 450 mm dia<br>Cement Consumption - 2.40 KG/ R.M | R.M | 676.05 |
| E | 600 mm dia<br>Cement Consumption - 2.95 KG/ R.M | R.M | 1318.05 |
| F | 750 mm dia<br>Cement Consumption - 3.90 KG/ R.M | R.M | 1602.95 |
| G | 900 mm dia<br>Cement Consumption - 4.50 KG/ R.M | R.M | 1890.85 |
| H | 1200 mm dia<br>Cement Consumption - 6.30 KG/ R.M | R.M | 2935.60 |
| 0903 | Providing of granular sub- base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density,complete as per clause 401of MOHRT-Rev5. | | |
| A | For Grading-V Material (Drainage/ Top Layer) | CUM | 1161.65 |
| B | For Grading-III Material (Bottom Layer if thickness more than 300 mm) | CUM | 1212.90 |
| 0904 | Providing and laying 50mm consolidated thick Dence bituminous macadam using 0.24 cum of 26.50-13.20 mm, 0.25 cum of 13.20-2.36 mm and 0.23 cum of 2.36mm & below and with 53.20 kgs of VG 30/VG 40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to requied temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to work site, spreading the mix to uniform thickness of 50mm with paver to the specified grades and cross sections and compacted by Vibratory / Pneumatic Roller to the required density etc., including labour for attending tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic rollers and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specificiation using CMP as per clause 505 MORTH Rev-5. | CUM | 10202.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0905 | Providing and laying 75mm consolidated thick Dense Bituminous macadam using 0.40 cum of 37.50-13.20mm, 0.35 cum of 13.20-2.36mm and 0.36 cum of 2.36mm & below size IRC metal with 71.30 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 75mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 505 of MORTH rev-5. | CUM | 9448.15 |
| 0906 | Providing and laying 50mm consolidated thick bituminous macadam using 0.20 cum of 26.50-13.20mm, 0.43 cum of 13.20-2.36mm and 0.08 cum of 2.36mm & below size IRC metal with 37 Kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 504 of MORTH Rev-5 | CUM | 8297.90 |
| 0907 | Providing and laying 80mm consolidated thick bituminous macadam using 0.64 cum of 37.5 - 13.20mm, 0.44 cum of 13.2 - 2.36mm and 0.13 cum of 2.36mm and below size IRC metal with 62 Kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 80mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks,Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 504 of MORTH Rev-5. | CUM | 8391.65 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0908 | Providing and laying Premix Carpet with Seal Coat Type - A to 20 mm thick using 0.18 cum of 13.20mm,0.09 cum of 11.20mm and 0.09 cum of 6.70mm with 24.40 kgs of VG30 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks,Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per MORTH Rev-5 | SQM | 241.65 |
| 0909 | Providing and laying, spreading and compacting graded stone aggregates to Wet Mix Macadam of 250mm thick specification including premixing the materials with water at OMC in mechnanical mix plant carriage of mixed material by tipper to site laying in uniform layers with pavers in Sub Base/ Base course on well prepared surface and compacting with vibratory roller to acheive the desired density including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per clause 406 of MORTH Rev-5 | CUM | 1487.60 |
| 0910 | Providing and laying Bituminous Concrete to 40 mm thick using 0.13 cum of 19.00-9.50 mm, 0.17 cum of 9.50-2.36mm and 0.26 cum of 2.36 and below with 50.30 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 40mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9 m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 507 of MORTH Rev-5 | CUM | 11230.65 |
| 0911 | Providing laying and rolling of close graded premix carpet of compacted 20mm thickness using 0.0162 cum of 13.20-11.20mm, 0.1404 cum of 11.2-5.6mm, 0.0729 cum of 5.60-2.80 mm, 0.0405 cum of 2.80mm and below (Type B) graded HBG metal using 19kg of VG30 bitumen for 10sqm including premixing at CMP, conveyance by tipper lorry, laying by paver finisher and rolling by Vibratory Roller including cost and conveyance of all materials, hire charges of all T&P all labour charges, fuel and and all other incidental charges etc., Complete as per specification using CMP as per clause 508 of MORTH Rev-5 | SQM | 200.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0912 | Providing and laying, spreading and compacting graded stone aggregates to Crusher Run Macadam specification including premixing the materials with water at OMC in mechnanical mix plant carriage of mixed material by tipper to site laying in uniform layers with pavers in Sub Base/ Base course on well prepared surface and compacting with vibratory roller to acheive the desired density including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 407 of MORTH Rev-5 | CUM | 1410.45 |
| 0913 | Providing and laying Prime Coat over WBM/WMM surface using 7 Kg of Emulsion Bitumen (SS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as perClause 502 of MORTH Rev-5 | SQM | 82.55 |
| 0914 | Providing and laying Prime Coat over CRM/ Gravel base using 9 Kg of Emulsion Bitumen (SS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as perClause 502 of MORTH Rev-5 | SQM | 100.30 |
| 0915 | Providing and laying Tack Coat over Dry Lean Cement Concrete surface using 3.00 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as perClause 503 of MORTH Rev-5 | SQM | 20.15 |
| 0916 | Providing and laying Tack Coat over Existing BT surface using 2 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as perClause 503 of MORTH Rev-5 | SQM | 19.15 |
| 0917 | Providing and laying Tack Coat over WBM/ WMM surface (treated with primer) using 2.50 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as perClause 503 of MORTH Rev-5 | SQM | 17.35 |
| 0918 | Providing,laying and compacting Well Gravel including cost and conveyance of the same to work site with an average lead of 5 Km including stacking the same to departemental gauge for premeasurement including all labour charges for laying, spreading etc., complete and directed by the departmental engineers for making up of low berms | CUM | 234.10 |
| 0919 | Providing, laying and compacting Gravel including cost and conveyance of the same to work site with an average lead of 5 Km including stacking the same to departemental gauge for premeasurement including all labour charges for laying, spreading etc., complete and as directed by the departmental engineers for making up of low berms | CUM | 333.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 0920 | Providing and laying Bituminous Concrete to 50 mm thick using 0.22 cum of 26.5- 13.20mm, 0.24 cum of 13.20-2.36mm and 0.26cum of 2.36 & below IRC HBG metal with 62.40 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP clause 507 of MORTH. | CUM | 10768.20 |
| 0921 | Formation of embankment with earth from quarrying place and compaction by power roller (100 % compaction ) | CUM | 539.90 |
| 0922 | Labour charges for spreading the patchmat material for road patch work. Rate includes preparation of surface, brushing, cleaning, laying patchmat, compacting etc. complete. Patchmat will be supplied by BHEL at stores at free of cost. | SQM | 42.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **X - DISMANTLING AND DEMOLITION** | | |
| 1001 | Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. | | |
| A1 | Brick work in cement mortar | CUM | 530.25 |
| A2 | Stone rubble masonry in cement mortar | CUM | 632.70 |
| A3 | Old plastering / skirting raking out joints / chipping the concrete and roughening the surface. | SQM | 14.15 |
| A4 | Plain Cement Concrete. | CUM | 387.15 |
| A5 | RCC works including stacking of steel bars by manual/mechanical means. | CUM | 916.95 |
| A6 | RCC or PCC (Using jack hammer only for pockets ) | CUM | 1599.85 |
| A7 | Precast concrete or stone slabs in walls, partition walls etc. | | |
| i | Thickness upto 40 mm | SQM | 78.00 |
| ii | Thickness above 40 mm upto 75 mm | SQM | 116.80 |
| A8 | RCC louvers / RCC jally | SQM | 152.85 |
| A9 | Ellis pattern finish / Insitu mosaic. | SQM | 27.95 |
| A10 | Tile work in floors and roofs laid in cement mortar. | SQM | 27.70 |
| A11 | Brick jelly lime concrete | CUM | 219.15 |
| A12 | Doors / Windows / Ventilators (steel or wood) including frame and shutters, holdfasts, hinges, fastenings etc. of area 3 sqm & below. | EACH | 110.15 |
| A13 | Only shutters of Doors / Windows / Ventilators (steel or wood) including hinges, fastenings etc. | SQM | 20.00 |
| A14 | IWC with 'P' trap & foot rests | SET | 240.20 |
| A15 | EWC (excluding flushing cistern) / Urinal (earthenware) of any size including foot rests / Wash basin with connected fittings / RCC precast sink or other ready made sinks with connected fittings/ Nahani trap. | EACH | 144.10 |
| A16 | Flushing cistern of any size | EACH | 272.45 |
| A17 | G.I / PVC pipe lines of various dia including all specials. | R.M | 10.80 |
| A18 | A.C / C.I rain water pipes upto 150 mm dia with fittings and clamps. | R.M | 20.15 |
| A19 | S.W pipe lines upto 225 mm dia. | R.M | 30.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A20 | C.I pipes including earthwork excavation, breaking lead caulked joints, melting of lead and making into blocks, refilling trenches after taking out the pipes etc. | | |
| I | Upto 150 mm dia | R.M | 127.60 |
| ii | Above 150 and upto 300 mm dia | R.M | 169.60 |
| iii | Above 300 mm dia | R.M | 220.10 |
| A21 | C.I sluice valve | | |
| I | Upto 150 mm dia | EACH | 100.45 |
| ii | Above 150 mm dia | EACH | 349.15 |
| A22 | A.C sheets from roofs and side cladding including ridges, valleys, gutters etc. | SQM | 22.90 |
| A23 | G.I / Aluminium sheets / Aluminium Zinc alloy coated sheets from roofs and side cladding including ridges, valleys, gutters etc. | SQM | 49.30 |
| A24 | Steel structures / steel works in built up sections including bolts, nuts, cutting rivets, welding, dismembering, preparation of DODL etc. | M.T | 1549.00 |
| A25 | Steel partitions including bolts, nuts, cutting rivets, welding etc. and dismembering | SQM | 68.00 |
| A26 | North light glasses at various levels ranging from 9 to 24 metre | SQM | 77.55 |
| A27 | False ceiling / partitions / fixed glazing, all in A.C sheet or hard board or aluminium or gypsum or other materials including connected frame works . | SQM | 17.50 |
| A28 | Rough stone dry packing for apron, revetments etc. | CUM | 219.60 |
| A29 | R.C.C fencing post including all earthwork, dismantling base concrete etc. | EACH | 87.80 |
| A30 | Barbed wire / flexible wire rope in fencing. | K.G | 9.45 |
| A31 | R.C.C pipes upto 450 mm dia | R.M | 183.55 |
| A32 | Kerb stone | R.M | 17.85 |
| A33 | Bituminous road. | CUM | 376.20 |
| A34 | W.B.M /W.M.M road. | CUM | 233.20 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **XI - WATER SUPPLY AND SANITARY ITEMS** | | |
| 1101 | Providing and fixing G.I pipes and specials (B - Class) of approved brand with G.I fittings and clamps on walls & floors, including cutting and making good the walls & floors etc. complete. (Internal work - exposed on walls) | | |
| A | 15 mm dia nominal bore. | R.M | 147.10 |
| B | 20 mm dia nominal bore. | R.M | 180.00 |
| C | 25 mm dia nominal bore. | R.M | 239.65 |
| D | 32 mm dia nominal bore. | R.M | 290.10 |
| E | 40 mm dia nominal bore. | R.M | 345.10 |
| F | 50 mm dia nominal bore. | R.M | 431.55 |
| G | 65 mm dia nominal bore. | R.M | 531.25 |
| H | 80 mm dia nominal bore. | R.M | 677.65 |
| I | 100 mm dia nominal bore. | R.M | 835.65 |
| J | 125 mm dia nominal bore. | R.M | 1409.55 |
| K | 150 mm dia nominal bore. | R.M | 1627.45 |
| 1102 | Making chases upto 7.50 x 7.50 cm in walls for concealed pipe line works etc. including making good to match with existing one after housing pipes etc. complete. Rate excludes cost of pipes. | R.M | 57.40 |
| 1103 | Providing and laying G.I pipes and specials (B - Class) of approved brand with G.I fittings in trenches. (External work) Earth work excavation for trenches and refilling will be paid separately. | | |
| A | 15 mm dia nominal bore. | R.M | 87.00 |
| B | 20 mm dia nominal bore. | R.M | 110.60 |
| C | 25 mm dia nominal bore. | R.M | 162.10 |
| D | 32 mm dia nominal bore. | R.M | 199.20 |
| E | 40 mm dia nominal bore. | R.M | 232.70 |
| F | 50 mm dia nominal bore. | R.M | 290.10 |
| G | 65 mm dia nominal bore. | R.M | 381.70 |
| H | 80 mm dia nominal bore. | R.M | 504.25 |
| I | 100 mm dia nominal bore. | R.M | 650.95 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| J | 125 mm dia nominal bore. | R.M | 1150.25 |
| K | 150 mm dia nominal bore. | R.M | 1360.80 |
| 1104 | Providing and fixing PVC water pipes and specials conforming to ISS on walls and floors with clamps at one metre spacings, joining with proper adhesive as suggested by manufacturers, cutting and making good the wall etc. complete. (internal work - exposed on walls) | | |
| A | PVC Pipe 18/20 mm OD (10 kg/Sq.cm) | R.M | 62.90 |
| B | PVC Pipe 25 mm OD (10 kg/Sq.cm) | R.M | 80.05 |
| C | PVC Pipe 32 mm OD (10 kg/Sq.cm) | R.M | 96.10 |
| D | PVC Pipe 40 mm OD ( 6 kg/Sq.cm) | R.M | 119.65 |
| E | PVC Pipe 50 mm OD ( 6 kg/Sq.cm) | R.M | 156.80 |
| 1105 | Providing and laying PVC water pipes and specials conforming to ISS in trenches, joining with proper adhesive as suggested by manufacturers etc. complete. (External work) Earth work excavation for trenches and refilling will be paid separately. | | |
| A | PVC Pipe 18/20 mm OD (10 kg/Sq.cm) | R.M | 23.35 |
| B | PVC Pipe 25 mm OD (10 kg/Sq.cm) | R.M | 32.35 |
| C | PVC Pipe 32 mm OD (10 kg/Sq.cm) | R.M | 46.25 |
| D | PVC Pipe 40 mm OD (6 kg/Sq.cm) | R.M | 51.10 |
| E | PVC Pipe 50 mm OD (6 kg/Sq.cm) | R.M | 72.35 |
| F | PVC Pipe 63 mm OD (6 kg/Sq.cm) | R.M | 108.50 |
| G | PVC Pipe 75 mm OD (6 kg/Sq.cm) | R.M | 150.70 |
| H | PVC Pipe 90 mm OD (6 kg/Sq.cm) | R.M | 211.45 |
| I | PVC Pipe 110 mm OD (6 kg/Sq.cm) | R.M | 294.65 |
| J | PVC Pipe 140 mm OD (6 kg/Sq.cm) | R.M | 464.30 |
| K | PVC Pipe 160 mm OD (6 kg/Sq.cm) | R.M | 594.70 |
| L | PVC Pipe 180 mm OD (6 kg/Sq.cm) | R.M | 774.35 |
| M | PVC Pipe 200 mm OD (6 kg/Sq.cm) | R.M | 941.90 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1106 | Providing and fixing PVC pipes of 4 K.G / Sqcm conforming to ISS including joining with proper adhesive as suggested by manufacturers and suitable clamps for rain water pipes, drainage etc. Rate excludes all specials like shoe, bend, tee, tee with door etc. | | |
| A | PVC Pipe 75 mm OD | R.M | 128.05 |
| B | PVC Pipe 110 mm OD | R.M | 225.50 |
| C | PVC Pipe 160 mm OD | R.M | 364.85 |
| 1107 | Providing and fixing PVC moulded fittings / accessories on walls for rain water pipes conforming to IS 13592 Type A including joining with seal rings conforming to IS 5382 and proper adhesive as suggested by manufacturers etc.complete. | | |
| A | 75 x75 x 75 mm single tee with door. | EACH | 134.50 |
| B | 110 x 110 x 110 mm single tee with door. | EACH | 197.90 |
| C | 160 x 160 x 160 mm single tee with door. | EACH | 335.15 |
| D | 75 x75 x 75 mm single tee without door. | EACH | 119.10 |
| E | 110 x110 x 110 mm single tee without door. | EACH | 174.80 |
| F | 160 x160 x 160 mm single tee without door. | EACH | 288.85 |
| G | 75 mm shoe | EACH | 68.60 |
| H | 110 mm shoe | EACH | 101.70 |
| I | 160 mm shoe | EACH | 174.90 |
| J | 75 mm bend | EACH | 81.90 |
| K | 110 mm bend | EACH | 150.25 |
| L | 160 mm bend | EACH | 191.50 |
| 1108 | Providing and fixing in position of brass wheel valve / gate valve (G.M) of approved brand with C.I wheel etc. complete. (ISI marked) | | |
| A | 15 to 25 mm nominal bore | EACH | 421.70 |
| B | 32 mm nominal bore | EACH | 545.35 |
| C | 40 mm nominal bore | EACH | 712.80 |
| D | 50 mm nominal bore | EACH | 962.70 |
| E | 80 mm nominal bore | EACH | 2730.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| F | 100 mm nominal bore | EACH | 4972.00 |
| 1109 | Providing and fixing in position C.P brass bib cock / stop cock (Medium Duty) of approved brand (ISI marked) | | |
| A | 15 mm nominal bore. | EACH | 207.55 |
| B | 20 mm nomial bore. | EACH | 265.25 |
| C | 25 mm nominal bore. | EACH | 342.10 |
| 1110 | Providing and fixing in position of following of approved brand (ISI marked) | | |
| A | 15 mm nominal bore C.P brass long nose bibcock | EACH | 748.70 |
| B | 15mm nominal C.P brass stop cock (concealed) | EACH | 585.95 |
| C | 15 mm nominal C.P brass long body bibcock | EACH | 577.10 |
| 1111 | Providing and fixing in position 15 mm nominal bore C.P brass angle valve for basin mixer and geyser points of approved brand (ISI marked) | EACH | 479.85 |
| 1112 | Providing and fixing in position 100 mm dia C.P brass shower rose (tilting type) of approved brand with 15 or 20 mm dia inlet. | EACH | 67.65 |
| 1113 | Providing and fixing in position of white glazed earthenware wash basin of size 550 x 400 x 225 mm of approved brand with M.S or C.I brackets painted with two coats of synthetic enamel paint, single 15 mm C.P brass pillar tap and C.P brass chain with rubber plug, 32 mm C.P brass waste coupling of standard pattern, 32 mm dia PVC flexible waste pipe etc. complete, including cutting and making good the walls wherever required. | EACH | 1605.80 |
| 1114 | Providing built-in-wash basin of inner dimension 0.30 x 0.25 m with 50 mm thick bottom slab in cement concrete 1:2:4, using 12 to 20 mm size hard broken granite stone jelly and 30 mm thick side walls in cement concrete 1:2:4 using 6 mm granite stone chips applied over chickenmesh and finished with insitu gray mosaic of 10 mm thick wearing layer on both faces. Rate includes cost of all materials, labour, centering, curing and all other incidentals but excluding cost of binding wire and fabrication charges for grills. | R.M | 1154.50 |
| 1115 | Providing and fixing in position of towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality & 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 grams) | | |
| A | PTMT towel rail 600 mm | EACH | 382.05 |
| B | Brass chromium plated towel rail 600 mm and 20 mm dia | EACH | 399.65 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| C | Anodised aluminium Towel rail 60cm long and 20mm dia with brackets | EACH | 266.55 |
| 1116 | Providing and fixing 600 x 450 x 5 mm bevelled edge mirror of superior glass (approved brand) mounted on 5/6 mm thick hard board / ply wood / plastic folder sheet, fixed to wooden cleats with C.P brass screws and washers, etc. complete. | | |
| A | 600 x 450 x 5 mm bevelled edge mirror | EACH | 374.00 |
| B | Circular shape 450 mm dia Mirror with Plastic moulded frame | EACH | 528.00 |
| C | Rectangular shape 453x357 mm Mirror with Plastic moulded frame | EACH | 363.00 |
| D | Oval shape 450x350 mm (outer dimensions) Mirror with Plastic | EACH | 418.00 |
| E | Rectangular shape 1500x450 mm Mirror with Plastic moulded frame | EACH | 803.00 |
| 1117 | Providing and fixing in position of 600 x 120 x 5 mm glass shelf ( approved brand) with edges rounded off, supported on anodised aluminium angle frame with C.P brackets fixed with screws , rawl plugs etc. complete. | EACH | 308.00 |
| 1118 | Providing and fixing RCC precast sink of size 60 x 45 x 25 cm in cement concrete of mix 1:2:4 for 25 mm thick bottom slab and 20 mm thick side walls using 6 mm granite stone jelly, applied on chickenmesh and plastered both sides with cement mortar 1:4, 12 mm thick and finished smooth, supply and fixing PVC waste pipe 32 mm dia. with necessary coupling. etc., complete. Rate includes cost of all materials, labour, curing, carrying and fixing in position etc. but excluding cost of binding wire and fabrication charges for grills, all as per standard specifications. | EACH | 1244.40 |
| 1119 | Providing and fixing in position of ready made sink including PVC flexible waste pipe of 32 mm dia with necessary C.P waste coupling etc. complete. | | |
| A | Cudappa sink of size 600X450X200 or thereabouts (outer dimensions) - 12 mm thick. | EACH | 766.10 |
| B | Cudappa sink of size 600X600X200 or thereabouts (outer dimensions) - 12 mm thick. | EACH | 932.15 |
| C | Marble (white) sink of size 23” x 17” x 9"/10” or thereabouts (outer dimensions) - 12 mm thick. | EACH | 1174.80 |
| D | Marble (white) sink of size 23” x 23” x 9"/10” or thereabouts (outer dimensions) - 12 mm thick. | EACH | 1460.80 |
| E | Granite (black) sink of size 23” x 17” x 9"/10” or thereabouts (outer dimensions) - 12 mm thick. | EACH | 1614.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| F | Granite (black) sink of size 23” x 23” x 9"/10” or thereabouts (outer dimensions) - 12 mm thick. | EACH | 1900.80 |
| 1120 | Conveying RCC/ ready made sink from BHEL stores to site of work and fixing in proper position with cement mortar including supply and fixing 32 mm dia PVC waste pipe with necessary coupling etc. complete. Rate excludes cost of sink which will be supplied by BHEL at stores at free of cost. | EACH | 181.50 |
| 1121 | Providing and fixing in position of 100 x 75 mm Nahani trap with PVC grating, all as per standard specifications. | EACH | 182.70 |
| 1122 | Providing and fixing in position of 150 mm SW gully trap with HCI grating, all as per standard specifications. | EACH | 288.75 |
| 1123 | Providing and fixing in position of brass ball valve of approved brand with plastic float fitted with brass rod etc. complete. | | |
| A | 20mm nominal bore | EACH | 385.80 |
| B | 25mm nominal bore | EACH | 432.30 |
| 1124 | Providing and fixing in position of Indian type white glazed earthenware water closet pan of approved brand with suitable P or S trap including a pair of white glazed foot rest etc. complete. | | |
| A | 580 mm size | EACH | 1112.35 |
| B | 500 mm size | EACH | 1579.85 |
| 1125 | Providing and fixing in position of orissa pattern water closet of approved brand with integral type foot rests,suitable P or S trap etc. complete. | | |
| A | 580 mm size (White) (Parryware/Neycer/Cera) | EACH | 1815.25 |
| B | 580 mm size (colour) | EACH | 2146.35 |
| 1126 | Providing and fixing in position of 25 mm nominal bore C.P half turn flush valve of approved brand (ISI marked) in pipe lines. | EACH | 1017.50 |
| 1127 | Providing and fixing in position of pedestal type water closet (European type W.C pan) 400 mm high of approved brand with seat and lid, C.P brass hinges and rubber buffers, 10 litre PVC low level flushing cistern with fittings and painted C.I / M.S brackets with 15 mm PVC connection, 32/40 mm PVC flush bend with fittings and clamps, over flow arrangement with specials and mosquito proof coupling including painting of fittings & brackets, cutting and making good the walls and floors wherever required etc. complete. | | |
| A | White glazed (white seat and lid) | EACH | 4530.05 |
| B | Colour glazed with colour seat and lid | EACH | 4931.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1128 | Providing and fixing in position of 10 litre low level PVC flushing cistern of approved make with fittings and flush pipe etc. complete. | EACH | 679.95 |
| 1129 | Providing and fixing in position 32 mm dia G.I flush pipe with brass union for high level flushing cistern including cutting and making good the walls and floors etc. complete. | EACH | 543.95 |
| 1130 | Providing and fixing in position of white glazed earthenware urinal of approved brand with teakwood plugs and screws/clamps, including standard PVC flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, cutting of floor and walls and making good all damages and finishing to match with the existing work etc., complete. | | |
| A | Flat back angular lipped urinal of 430 x 260 x 350 mm or 340 x 410 x 265 mm | EACH | 1383.50 |
| B | Flat back half stall urinal of size 580x380x350 mm | EACH | 2606.70 |
| 1131 | Providing, laying in proper grade and alignment and joining glazed stoneware pipes of approved brand with stiff mixture of cement mortar 1:1 and spun yarn including testing of joints etc.complete. | | |
| A | 100 mm dia S.W Pipes<br>Cement consumption 0.64 Kg / R.M | R.M | 176.75 |
| B | 150 mm dia S.W Pipes<br>Cement consumption 1.20 Kg / R.M | R.M | 270.45 |
| C | 200 mm dia S.W Pipes<br>Cement consumption 1.77 Kg / R.M | R.M | 402.65 |
| D | 225 mm dia S.W Pipes<br>Cement consumption 2.17 Kg / R.M | R.M | 491.75 |
| 1132 | Providing rectangular/circular manhole as per Drawing for the following depths. Rate includes earth work excavation in all soils (except hard rock requiring blasting) including soft disintegrated rock, watering and ramming of foundation bed, providing cement concrete 1:4:8 in foundation, including necessary slope and forming channels smoothly finished in C.M 1:2, brick work in C.M 1:5 for arch ring, etc., using standard approved bricks, plastering in cement mortar 1:4 for side walls (outside and inside), cement concrete 1:2:4 using 12 to 20 mm HBGS jelly for manhole cover fixing, providing and fixing C.I steps for ladder rungs, etc., complete. Rate includes an initial lead of 10 m and all lifts for excavation and other charges etc., complete, but excludes cost of manhole cover and frame. | | |
| A | Upto 0.90 m depth (Rectangular)<br>Cement consumption 128.00 Kg / Each | EACH | 4131.75 |
| B | Above 0.90 and upto 1.20 m depth (Rectangular)<br>Cement consumption 278.01 Kg / Each | EACH | 6589.65 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| C | Above 1.20 and upto 1.50 m depth (Rectangular)<br>Cement consumption 320.31 Kg / Each | EACH | 8361.35 |
| D | Above 1.50 and upto 1.80 m depth (Rectangular)<br>Cement consumption 332.10 Kg / Each | EACH | 9284.90 |
| E | Above 1.80 and upto 2.10 m depth (Rectangular)<br>Cement consumption 367.94 Kg / Each | EACH | 10773.80 |
| F | Above 2.10 and upto 2.40 m depth (Rectangular)<br>Cement consumption 403.63 Kg / Each | EACH | 12463.50 |
| G | Above 2.40 and upto 2.70 m depth (Rectangular)<br>Cement consumption 594.62 Kg / Each | EACH | 15600.85 |
| H | Above 2.70 and upto 3.00 m depth (Rectangular)<br>Cement consumption 618.57 Kg / Each | EACH | 16756.65 |
| I | Above 3.00 and upto 3.30 m depth (Rectangular)<br>Cement consumption 654.69 Kg / Each | EACH | 18619.60 |
| J | Above 3.30 and upto 3.60 m depth (Rectangular)<br>Cement consumption 690.82 Kg / Each | EACH | 20482.55 |
| 1133 | Supply and fixing C.I cover with/without frame for manholes/gully traps. | | |
| A | 500 mm dia C.I cover only (Without frame) (Medium duty) Weight of the cover to be not less than 58 K.G. | EACH | 2587.35 |
| B | 500 mm dia C.I cover with frame (Medium duty) Total weight of cover and frame to be not less than 116 K.G (Weight of cover 58 K.G and weight of frame 58 K.G) | EACH | 5309.70 |
| C | 560 mm dia C.I cover only. (Without frame) (Heavy duty) Weight of cover to be not less than 108 K.G. | EACH | 5562.35 |
| D | 560 mm dia C.I cover with frame. (Heavy duty) Total weight of cover and frame to be not less than 208 K.G ( Weight of cover 108 K.G and weight of frame 100 K.G) | EACH | 10045.20 |
| E | 300 x 300 mm C.I cover without frame for gully trap (standard pattern) The weight of cover to be not less than 4.50 K.G. | EACH | 260.60 |
| 1134 | Labour charges for laying centrifugally C.I pipes (S&S or flanged pipes) in trenches to proper grade and alignment. Rate excludes cost of pipes. | M.T | 1020.45 |
| 1135 | Labour charges for laying C.I specials such as tees, bends, collars, tapers, caps etc. in trenches to proper alignment. Rate excludes cost of specials. | M.T | 1960.45 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1136 | Labour charges for cutting C.I pipes true to axis and filing smoothly and finishing the ends complete. | | |
| A | 80 mm dia C.I pipe. | EACH | 44.65 |
| B | 100 mm dia C.I pipe. | EACH | 60.10 |
| C | 125 mm dia C.I pipe. | EACH | 83.90 |
| D | 150 mm dia C.I pipe. | EACH | 113.10 |
| E | 200 mm dia C.I pipe. | EACH | 150.85 |
| F | 250 mm dia C.I pipe. | EACH | 186.95 |
| G | 300 mm dia C.I pipe. | EACH | 224.70 |
| H | 350 mm dia C.I pipe. | EACH | 260.80 |
| I | 400 mm dia C.I pipe. | EACH | 298.30 |
| J | 450 mm dia C.I pipe. | EACH | 334.65 |
| 1137 | Providing lead caulked joints to C.I pipes and specials including testing of joints but excluding cost of pig lead. | | |
| A | 80 / 100 mm dia pipe. | EACH | 163.50 |
| B | 125 / 150 mm dia pipe. | EACH | 241.50 |
| C | 200 / 250 mm dia pipe. | EACH | 365.95 |
| D | 300 / 350 mm dia pipe. | EACH | 498.25 |
| E | 400 / 450 mm dia pipe. | EACH | 698.95 |
| 1138 | Providing flanged joints to double flanged C.I pipes and specials including testing of joints, 3 mm thick rubber insertions, suitable bolts and nuts etc. complete. | | |
| A | 100 / 125 mm dia pipe. | EACH | 173.25 |
| B | 150 / 200 mm dia pipe. | EACH | 208.55 |
| C | 250 / 300 mm dia pipe. | EACH | 323.45 |
| D | 350 / 400 mm dia pipe. | EACH | 453.75 |
| E | 450 / 500 mm dia pipe. | EACH | 836.75 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1139 | Desludging and cleaning the underground equalising reservoirs by dewatering, scraping the silt deposited on floor, brushing, swabbing, cleaning, scraping side walls and floors with bleaching powder, removing dirt, moss, cleaning the reservoirs with fresh water etc. complete. Rate includes labour, scaffolding, brushes, brooms etc. complete. Bleaching powder, electrical/diesel opearated pumps with power/diesel and fresh water will be supplied by BHEL at free of charges. | SQM | 6.00 |
| 1140 | Cleaning the main over head water tanks by dewatering, scouring the silt deposited on the floor of tanks, removing cobweb, brushing, scraping the side walls and floors of inner and outer compartments using cleaning powder, removal of sediment, applying cleaning powder on all interior surfaces and kept under disinfection for a minimum of 12 hour, then washing thoroughly with clean water without any residual cleaning powder or any foreign matter etc. complete. Rate includes all labour, brushes, brooms etc. Cleaning powder will be supplied by BHEL at stores at free of cost. Payment will be made for the floors and inside walls of the water tanks. (Staging height may vary from 15 to 23 M from ground level) | SQM | 6.50 |
| 1141 | Cleaning of over head water tank of 500 cum capacity with a staging height of 23 to 40 M from ground level by de-watering, removing algae, fungus, scouring the silt deposited on the floors of the tank, removing cobweb, brushing, scraping the side walls of inner and outer shells, floors, columns and beams using necessary cleaning powder on all interior surfaces and kept under disinfection for a minimum of 12 hour, then washing thoroughly with clean water without any residual cleaning powder or any other foreign matter etc., complete. Necessary cleaning powder, brushes, brooms and ladder will be supplied by BHEL at stores at free of cost. Contractor has to take all safety precautions. | EACH | 4880.75 |
| 1142 | Replacement to the damaged water closet by providing new Orissa water closet pan of approved brand with suitable trap. Rate includes dismantling the damaged water closet with foot rests, trap, ellis/mosaic floor finish with base concrete, sand and refilling with fresh river sand, providing new Orissa pan with trap & fixing in position, providing 20 mm thick ellis pattern finish over 75 mm thick floor concrete in PCC 1:5:10 using 40 mm size stone jelly for that area, finishing the side walls to match with the existing one etc. complete. | | |
| A | 580 mm size (White) | EACH | 1617.90 |
| B | 580 mm size (White), but with 20 mm thick insitu mosaic floor finish as per usual practice instead of ellis pattern finish. | EACH | 1788.40 |
| 1143 | Replacement to the damaged European water closet by providing new white glazed European water closet (white) 400 mm high of approved brand with seat & lid. Rate includes dismantling the damaged water closet, providing new EWC, fixing, all labour etc. complete. | EACH | 1495.60 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1144 | Labour charges for dismantling the trap alone without damaging the water closet & refixing with new trap supplied by BHEL at stores at free of cost & making good all damages and finishing to match with the existing one etc.complete. | EACH | 211.75 |
| 1145 | Replacement to the damaged nahani trap by providing and fixing in position of new PVC nahani trap 100 x 75 mm with grating as per standard specifications. Rate includes labour for dismantling the existing trap, refixing with new one, making good all damages and finishing to match with the existing one etc., complete. | EACH | 352.00 |
| 1146 | Providing 32 mm dia PVC waste pipe to sink with necessary coupling etc complete. | EACH | 49.50 |
| 1147 | Cleaning & complete removal of all the obstructions/blockage accumulated such as silt, sand, debris, all other wastes etc. from manhole & disposing the same in the near by low level areas. Scope includes opening the manhole cover, removing all the blockage such as silt, sand, debris, all other wastes etc., lifting, disposing the same in the near by low level areas, all labour, tools, repositioning the manhole cover after finishing the job etc.complete. | | |
| A | Manhole upto 1.50 metre depth | EACH | 168.50 |
| B | Manhole beyond 1.50 but upto 3.30 metre depth | EACH | 378.40 |
| 1148 | Cleaning the sewer line in all depths between manhole to manhole & complete removal of all the obstructions/blockage accumulated such as silt, sand, debris, all other wastes etc. by means of blockage removal machine attached with sewer cleaning rod etc. & disposing the same in the near by low level areas. Scope includes opening the manhole cover, removing all the blockage such as silt, sand, debris, all other wastes etc., lifting, disposing the same in the near by low level areas, all labour, tools, repositioning the manhole cover after finishing the job etc.complete. Blockage removal machine attached with sewer cleaning rod for the job will be issued by BHEL at stores at free of cost. | R.M | 16.80 |
| 1149 | Labour charges for conveying, laying and fixing G.I pipes and specials with G.I fittings and clamps on walls & floors, including cutting and making good the walls & floors etc. complete. Rate includes cost of white lead, hemp, oil, sand etc. but excludes cost of G.I pipes, specials and clamps which will be supplied by BHEL at stores at free of cost. | | |
| A | 15 mm dia nominal bore. | R.M | 58.55 |
| B | 20 mm dia nominal bore. | R.M | 64.85 |
| C | 25 mm dia nominal bore. | R.M | 71.40 |
| D | 32 mm dia nominal bore. | R.M | 80.05 |
| E | 40 mm dia nominal bore. | R.M | 102.15 |
| F | 50 mm dia nominal bore. | R.M | 124.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| G | 65 mm dia nominal bore. | R.M | 135.20 |
| H | 80 mm dia nominal bore. | R.M | 143.70 |
| I | 100 mm dia nominal bore. | R.M | 229.75 |
| J | 125 mm dia nominal bore. | R.M | 163.35 |
| K | 150 mm dia nominal bore. | R.M | 172.40 |
| 1150 | Painting G.I pipes and fittings with synthetic enamel paint of two coats over a ready mixed priming coat, both of approved quality for new work. | | |
| A | 15 mm diameter pipe | R.M | 8.45 |
| B | 20 mm diameter pipe | R.M | 9.95 |
| C | 25 mm diameter pipe | R.M | 13.10 |
| D | 32 mm diameter pipe | R.M | 15.50 |
| E | 40 mm diameter pipe | R.M | 18.40 |
| F | 50 mm diameter pipe | R.M | 21.70 |
| 1151 | Conveying polyethylene cylinderical moulded water storage tank of following capacity from BHEL stores to site of work and placing it in proper position in buildings at required levels/floors. All as per instructions of Engineer in charge. Rate includes conveyance, placing it in position at required level, fixing the specials like barrel nipples etc. complete. PVC tank and all specials will be issued by BHEL at stores at free of cost. | | |
| A | Up to 500 litre | EACH | 99.00 |
| B | Above 500 but up to 1000 litre | EACH | 123.20 |
| C | Above 1000 but up to 2000 litre | EACH | 198.00 |
| 1152 | Labour charges for conveying, laying and fixing G.I pipes and specials (B - Class) of approved brand with G.I fittings in trenches.Rate includes cost of white lead, hemp, oil, sand etc. but excludes cost of G.I pipes, specials and clamps which will be supplied by BHEL at stores at free of cost. | | |
| A | 15 mm dia nominal bore. | R.M | 8.45 |
| B | 20 mm dia nominal bore. | R.M | 8.45 |
| C | 25 mm dia nominal bore. | R.M | 12.90 |
| D | 32 mm dia nominal bore. | R.M | 12.95 |
| E | 40 mm dia nominal bore. | R.M | 17.25 |
| F | 50 mm dia nominal bore. | R.M | 17.45 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| G | 65 mm dia nominal bore. | R.M | 30.55 |
| H | 80 mm dia nominal bore. | R.M | 30.75 |
| I | 100 mm dia nominal bore. | R.M | 45.10 |
| J | 125 mm dia nominal bore. | R.M | 45.10 |
| K | 150 mm dia nominal bore. | R.M | 70.50 |
| 1153 | Providing and fixing gun metal non- return valve of approved quality(screwed end) | | |
| A | 25 mm nominal bore (Horizontal) | EACH | 388.30 |
| B | 25 mm nominal bore (Vertical) | EACH | 421.30 |
| C | 32 mm nominal bore (Horizontal) | EACH | 522.70 |
| D | 32 mm nominal bore (Vertical) | EACH | 599.70 |
| E | 40 mm nominal bore (Horizontal) | EACH | 646.15 |
| F | 40 mm nominal bore (Vertical) | EACH | 855.15 |
| G | 50 mm nominal bore (Horizontal) | EACH | 934.80 |
| H | 50 mm nominal bore (Vertical) | EACH | 1143.80 |
| I | 65 mm nominal bore (Horizontal) | EACH | 1674.25 |
| J | 65 mm nominal bore (Vertical) | EACH | 1916.25 |
| K | 80 mm nominal bore (Horizontal) | EACH | 2369.90 |
| L | 80 mm nominal bore (Vertical) | EACH | 3216.90 |
| 1154 | Supply at site of work and fixing in position of 32mm dia. CP bottle trap for water line connection in wash basin / urinals of approved brand and quality. All as per standard specifications and instructions of Engineer-in-charge. | EACH | 625.75 |
| 1155 | Supplying and placing in proper position of Polyethlene cylindrical moulded vertical storage tank of 500 litres capacity of approved quality in buildings at required levels / floors as per the instruction of Engineer in charge. Rate shall include cost of the tank, taxes, duties, loading unloading transportation charges delivery to BHEL conveying to site of work and placing in position at required level, fixing the barrel nipple to the tank etc., and all other incidental charges etc., complete. Rate will exclude the cost of all special like barrel nipple etc., which will be issued by BHEL at free of cost | EACH | 3759.30 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1156 | Providing and fixing in position of fire clay laboratory sink ( white ) of size 610 mm x 460 mm x 205 mm or thereabouts of approved make and quality Neycer or equivalent with 32 mm waste coupling, waste hose and 250 mm clamps with necessary fixing arrangements. Rate includes cost of sink, waste coupling, waste hose, clamps, labour for fixing and all other incidental charges etc., complete. All as per standard specifications and instructions of Engineer in charge. | EACH | 9211.70 |
| 1157 | Providing and fixing in position of white glazed earthen ware wash hand basin of oval shape size 540 mm x 460 mm or thereabouts of approved make and quality ( Parry ware or equivalent) with 32 mm CP Waste coupling and necessary fixing arrangements. Rate includes cost of wash basin, waste coupling, labour for fixing and all other incidental charges, etc., complete. All as per standard specifications and instructions of Engineer in charge | EACH | 2066.00 |
| 1158 | Providing and fixing in position of Float valve- PTMT ( Poly Tetra- Methylene Terepthalate) Ball Cock-20 mm nominal bore of PRAYAG (India) make with Epoxy coated Aluminium rod and HD Ball etc. complete(Full Set) | EACH | 302.00 |
| 1159 | Labour charges for removing the blockage in the gully trap and cleaning it completely, all as per the instructions of Engineer-in-charge. | No | 32.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **XII - ALUMINIUM WORKS, FALSE CEILING ETC.** | | |
| 1201 | Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections / appropriate Z sections of approved make conforming to IS:733 & 1285, fixed with rawl plugs & screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC / neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and joined mechanically wherever required including cleat angle, aluminium snap beading for glazing / panelling, C.P brass / stainless steel screws, all complete as per architectural drawings and insrtuctions of Engineer-in-charge. (Glazing and panelling to be paid for separately) | | |
| A | For fixed portion - Anodised aluminium (anodised transperant or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15) | K.G | 302.20 |
| B | For shutters of doors, windows and ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including cost of PVC/ neoprene gasket required. (Fittings shall be paid for separately).<br>Anodised aluminium (anodised transperant or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15) | K.G | 324.40 |
| 1202 | Extra for powder coated aluminium (minimum thickness of powder coating 50 micron) sections instead of anodised aluminium sections. | K.G | 26.40 |
| 1203 | Extra for polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron) sections instead of anodised aluminium sections. | K.G | 33.00 |
| 1204 | Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per drawing and instructions of Engineer-in- charge. (Cost of aluminium snap beading shall be paid in basic item.) | | |
| A | With float glass panes of 4 mm thick | SQM | 797.60 |
| B | With float glass panes of 5.50 mm thick | SQM | 948.40 |
| 1205 | Providing and fixing double action hydraulic floor spring with stainless steel cover plate of approved brand and manufacture conforming to IS : 6315 for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S sheet outer box with side plate etc. complete as per instructions of Engineer-in- charge. | EACH | 1904.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1206 | Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee / angle sections of approved make conforming to IS:733 in frames of false ceiling including aluminium angle cleats with necessary C.P brass / stainless steel sunk screws, aluminium perimeter angles fixed to wall with rawl plugs at 450 mm c/c and fixing the frame work to level adjusting hangers (6mm dia MS rods) with necessary cadmium plated machine screws, all complete as per drawing and directions of Engineer-in-charge.(Level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately) | K.G | 451.90 |
| 1207 | Providing and fixing 6 mm dia G.I level adjusting hangers (upto 1200 mm length) fixed to roof slabs by means of ceiling cleats made of G.I flat 40 x 3 mm size, 60 mm long and expansion hold fasteners 12.5 mm dia, 40 mm long etc.complete. | EACH | 99.90 |
| 1208 | Providing and fixing machine moulded anodised aluminium (anodised transperant or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15) sheet covering of approved pattern and design made out machine cut aluminium sheet and machine holed for receiving screws, over expansion joints on vertical surfaces / ceilings with full threaded cadmium plated steel screws 4 mm dia, stem 30 mm long and aluminium washers 2 mm thick, 15 mm dia at a staggered pitch of 200 mm c/c including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete. | K.G | 400.20 |
| 1209 | Providing false ceiling at all height with 12.5 mm thick tapered edge gypsum board conforming to IS : 2095 including providing and fixing of frame work made of special sections of power pressed from M.S sheet and galvanised in accordance of zinc coating of grade 350 as per IS:277 and consisting of angle cleats of size 25 wide & 1.6 mm thick with flanges of 22 mm and 37 mm at 1200 mm c/c one flange fixed to the ceiling with dash fastener 12.5 mm dia, 40 mm long with 6 mm dia bolts to the angle hangers of 25 x 25 x 0.55 mm of required length and other end of angle hanger being fixed with nut and bolts to G.I channels 45 x 15 x 0.9 mm running at the rate of 1200 mm c/c to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm c/c shall be fixed in a direction perpendicular to G.I channel with connecting clips made of 2.64 mm dia, 230 mm long G.I wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall / partition with the help of rawl plugs at 450 mm c/c with 25 mm long drive all screws @ 230 mm interval including joining and fixing to a flush finish of tapered and square edges of gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers' specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing, specification and direction of Engineer-in-charge, but excluding the cost of painting. | SQM | 740.65 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1210 | Providing false ceiling at all heights using the following ceiling tiles. The scope of work includes providing and fixing frame of grid size 600 mm x 600 mm or thereabouts using GI sections of main tees of size 24mm x 38mm x, cross tees of size 24mm x 38mm, wall angles of size 19mm x 19mm , suspended by hangers of ceiling/ stay angles / G I wires of 2mm x 2 ply of 8' length screwed with suitable bullets of size 45 to 50mmx 8mm size to RCC roof ceiling / steel trusses etc. complete. hangers and height adjustment clips if any shall also to be provided wherever light fixtures / AC grills / diffusers are flush to the ceiling frame work and the ceiling boards have to made alright accordingly. Rate to include cost of all materials involved including suitable fasteners, screws, etc., , labour charges and all other incidentals etc., Complete. All as per standard / manufacturers specifications and instructions of Engineer-in- charge. | | |
| a | Arm Gyp- FB Ceiling tiles of Armstrong make of size 595mm x 595mm x 9mm thick | SQM | 1246.05 |
| b | Aruba- FB Ceiling tiles of Armstrong make of size 595mm x 595mm x7.5mm thick | SQM | 1137.60 |
| 1211 | Providing 10 mm thick plaster of paris (Gypsum anhydrous) ceiling upto a height of 5 metre above floor level over first clas kail wood strips 25 x 6 mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden. (Frame work will be paid separately) | | |
| A | Flat surfaces | SQM | 715.50 |
| B | Curved surfaces | SQM | 826.10 |
| 1212 | Extra for any sunk or raised mouldings in the plaster of paris (Gypsum anhydrous) ceiling. | SQM | 207.60 |
| 1213 | Extra for providing plaster of paris (Gypsum anhydrous) ceiling for every 1 m height above 5 metre height from floor level. (Height beyond 5 metre to be measured for extra payment) | SQM | 84.05 |
| 1214 | Providing and fixing 100 mm brass lock (mortise latch & lock with six levers) for aluminium doors including necessary cutting and making good etc.complete. | EACH | 371.40 |
| 1215 | Providing and fixing anodised (AC 15) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge. | EACH | 58.60 |
| 1216 | Providing and fixing powder coated (50 micron) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge. | EACH | 64.10 |
| 1217 | Providing and fixing polyester powder coated (50 micron) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge. | EACH | 69.60 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1218 | Servicing / overhauling, oiling, cleaning of aluminium door / window shutter of any size for smooth operation as per instructions of Engineer-in-charge. Rate includes cost of tool and labour (Excluding cost of spares which will be paid separately) and other incidental charges etc. complete | SQM | 179.50 |
| 1219 | Providing Powder coated aluminium alloy grills of following and fixing in proper position in windows/ventilators/balconies/partitions/fences/racks etc. with necessary appropriate type, material, brand & quality screws as per manufacturers recommendation etc.complete, all as per the instructions of Engineer-in-charge. | | |
| A | Aluminium Grill 12x4-4" open -7.5 mm thk (245-255g/sqft) | SQM | 1922.40 |
| B | Aluminium Grill 12x4-4" open -6.3 mm thk 175-185g/sqft | SQM | 1637.75 |
| C | Aluminium Grill 12x4-4" open -5.5 mm thk 125-135g/sqft | SQM | 1495.40 |
| D | Aluminium Grill 12x4-3" open -7.5 mm thk 315-325g/sqft | SQM | 2207.15 |
| E | Aluminium Grill 12x4-3" open -6.3 mm thk 230-240g/sqft | SQM | 1993.60 |
| F | Aluminium Grill 12x4-3" open -5.5 mm thk 160-170g/sqft | SQM | 1708.90 |
| G | Aluminium Grill 12x4-2" open -7.5 mm thk 410-420 g/sqft | SQM | 2420.70 |
| H | Aluminium Grill 12x4-2" open -5.5 mm thk 200-210g/sqft | SQM | 2207.15 |
| 1220 | Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below:<br>The bottom 90 cm and top 110 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminated (both side) particle board of approved shade with Powder coated aluminium frame work.<br>The middle 120 cm height of partition shall be of glazed using 5 mm thick plain glass and powder coated aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using 8 mm anchor fasteners including cutting and making good the walls and floors etc., complete.<br>FRAME WORK: The frame work shall be with Powder coated aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete. | SQM | 2365.85 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1221 | Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below:<br>The bottom ,middle and top of the partition (full portion) shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminated (both side) particle board of approved shade with Powder coated aluminium frame work.<br>FRAME WORK: The frame work shall be with Powder coated aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete. | SQM | 2385.00 |
| 1222 | Manufacturing, supplying and fixing in position of Aluminium partitions for an approximate height of 1.50m as detailed below:<br>The bottom 90 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminated (both side) particle board of approved shade with Powder coated aluminium frame work. The top 0.60 m height of partition shall be of glazed using 5 mm thick frosted glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using metal fasteners including cutting and making good the walls and floors etc. complete.<br>The frame work shall be with Powder aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 3/4" x 1 ¾" and 1.70 mm thick (1.312 kg/m) approximate. The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (0.754 kg/m) approximate and the verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Rate includes cost of all materials, labour and other incidentals etc., complete | SQM | 3313.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1223 | Manufacturing, supplying and fixing in position of Powder coated aluminium single leaved/double leaved glazed door of overall size 1.00 x 2.10m with suitable frame work as per the following specification and instructions of Engineer- in- charge.<br>The alround vertical and horizontal outer frame shall be with 4" x 1¾" x 1.60 mm (unit wt. 1.312 kg/m)sections and for door shutter the bottom member shall be with 3 ¾" x 1 ¾" x 1.70 mm thick (unit wt. 1.312 kg/m) shutter top and verticals shall be of size 1 ¾" x 1 ¾" x 1.52 mm thick (unit wt. 0.885 kg/m) and shutter divider shall be 2 nos of of 1 ¾" x 1 ¾" x 1.70 mm thick (unit wt. 0.885 kg/m) with necessary beadings and rubber gaskets as per standard specifications. The upper panel of 120 cm shall be with 5 mm thick plain glass and lower panel of 90cm shall be with 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminated (both side) particle board . Door shall be provided with 2 Nos. of 300 mm long anodized aluminium handle, One No. of ISI marked heavy duty door closer of approved brand, One No. 200 mm long anodized aluminium tower bolt, suitable lock (4 lever), required top and bottom pivots, all as per specification of Engineer in charge. Rate includes cost of all materials, labour and other incidentals etc., complete | SQM | 3507.75 |
| 1224 | Supplying and fixing in position of aluminium ventilator using Powder coated aluminium section of size 2 ½" x 1 ½" and 1.28 mm thick (0.754 kg/m) for frames confirming to IS: 1948 of latest edition. The fixed and louvered glass panels shall be 5mm thick frosted glass panes. The ventilator should have required No. of louvers fitted properly in aluminium frame work having arrangement to close / open. The rate quoted shall include cost of all materials, labour, fixing charges, locking arrangements etc. all as per standard specifications, drawing and code of practice and instruction of Engineer-in-charge. | SQM | 4017.65 |
| 1225 | Providing and fixing powder coated aluminium two track sliding windows of approved colours aluminium sections of size 60 x 28 x1.20 mm ( wt 0.656 kg /m ) for outer frame , 38 x 17 x 1.20 mm (0.41 kg / m) for shutter box and 38 x 17 x 1.20 mm (0.44 kg/m) for inter lock 4 mm thick plain glass for panes, PVC wheels, U rubber, screws, locking arrangements etc. complete, all as per instructions of Engineer-in-charge. | SQM | 2968.60 |
| 1226 | Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below:<br>The bottom 90 cm and top 110 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminated (both side) particle board of approved shade with anodised (25 micron) aluminium frame work.<br>The middle 120 cm height of partition shall be of glazed using 5 mm thick plain glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using 8 mm anchor fasteners including cutting and making good the walls and floors etc., complete. | SQM | 2214.40 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | FRAME WORK: The frame work shall be with anodised (25 micron) aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete. | | |
| 1227 | Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below:<br>The bottom ,middle and top of the partition (full portion) shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminated (both side) particle board of approved shade with anodised (25 micron) aluminium frame work.<br><br>FRAME WORK: The frame work shall be with anodised (25 micron) aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RCC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete. | SQM | 2232.60 |
| 1228 | Manufacturing, supplying and fixing in position of Aluminium partitions for an approximate height of 1.50m as detailed below:<br>The bottom 90 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminated (both side) particle board of approved shade with anodised (25 micron) aluminium frame work. The top 0.60 m height of partition shall be of glazed using 5 mm thick frosted glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using metal fasteners including cutting and making good the walls and floors etc. complete.<br><br>The frame work shall be with anodised aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 3/4" x 1 ¾" and 1.70 mm thick (1.312 kg/m) approximate. The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (0.754 kg/m) approximate and the verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Rate includes cost of all materials, labour and other incidentals etc., complete | SQM | 2965.35 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1229 | Manufacturing, supplying and fixing in position of anodised (25 micron) aluminium single leaved/double leaved glazed door of overall size 1.00 x 2.10m with suitable frame work as per the following specification and instructions of Engineer- in- charge.<br>The alround vertical and horizontal outer frame shall be with 4" x 1¾" x 1.60 mm (unit wt. 1.312 kg/m)sections and for door shutter the bottom member shall be with 3 ¾" x 1 ¾" x 1.70 mm thick (unit wt. 1.312 kg/m) shutter top and verticals shall be of size 1 ¾" x 1 ¾" x 1.52 mm thick (unit wt. 0.885 kg/m) and shutter divider shall be 2 nos of of 1 ¾" x 1 ¾" x 1.70 mm (unit wt. 0.885 kg/m) with necessary beadings and rubber gaskets as per standard specifications. The upper panel of 120 cm shall be with 5 mm thick plain glass and lower panel of 90cm shall be with 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminated (both side) particle board . Door shall be provided with 2 Nos. of 300 mm long anodized aluminium handle, One No. of ISI marked heavy duty door closer of approved brand, One No. 200 mm long anodized aluminium tower bolt, suitable lock (4 lever), required top and bottom pivots, all as per specification of Engineer in charge. Rate includes cost of all materials, labour and other incidentals etc., complete | SQM | 3165.55 |
| 1230 | Supplying and fixing in position of aluminium ventilator using anodised (25 micron) aluminium section of size 2 ½" x 1 ½" and 1.28 mm thick (0.754 kg/m) for frames confirming to IS: 1948 of latest edition. The fixed and louvered glass panels shall be 5mm thick frosted glass panes. The ventilator should have required No. of louvers fitted properly in aluminium frame work having arrangement to close / open. The rate quoted shall include cost of all materials, labour, fixing charges, locking arrangements etc. all as per standard specifications, drawing and code of practice and instruction of Engineer-in-charge. | SQM | 3854.20 |
| 1231 | Providing and fixing anodised (25 micron) aluminium two track sliding windows of approved colours aluminium sections of size 60 x 28 x1.20 mm ( wt 0.656 kg /m ) for outer frame , 38 x 17 x 1.20 mm (0.41 kg / m) for shutter box and 38 x 17 x 1.20 mm (0.44 kg/m) for inter lock 4 mm thick plain glass for panes, PVC wheels, U rubber, screws, locking arrangements etc. complete, all as per instructions of Engineer-in-charge. | SQM | 2669.75 |
| 1232 | Providing false ceiling at all heights using the following ceiling tiles. The scope of work includes providing and fixing frame of grid size 600 mm x 600 mm or thereabouts using GI sections of main tees of size 24mm x 38mm x, cross tees of size 24mm x 38mm, wall angles of size 19mm x 19mm , suspended by hangers of ceiling/ stay angles / G I wires of 2mm x 2 ply of 8' length screwed with suitable bullets of size 45 to 50mmx 8mm size to RCC roof ceiling / steel trusses etc. complete. hangers and height adjustment clips if any shall also to be provided wherever light fixtures / AC grills / diffusers are flush to the ceiling frame work and the ceiling boards have to made alright accordingly. Rate to include cost of all materials involved including suitable fasteners, screws, etc., , labour charges and all other incidentals etc., Complete. All as per standard / manufacturers specifications and instructions of Engineer-in- charge. | | |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A | 7.5MM NANO TILES 600mm X 600mm | SQM | 949.00 |
| B | 4MM EVEREST TILES OSANIC 600mm X 600mm | SQM | 1037.75 |
| 1233 | Providing and fixing in position of boards/sheets/tiles of approved quality for false ceiling. Rate includes cost of all materials, conveyance, cutting to required sizes to suit the false ceiling frame work grids, wastages, supply & fixing with necessary nails/screws, all labour etc. complete. (Frame work will be paid separately) | | |
| A | 12 mm flat pressed 3 layer medium density particle boards - Grade - I | SQM | 621.20 |
| B | 12 mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formoldehyde synthetic resin bonded pressed conforming to IS 3087. | SQM | 632.25 |
| C | 3 mm thick translucent white acrylic plastic sheets. | SQM | 878.30 |
| D | 20 mm thick thermocole boards. (22 K.G/CUM) | SQM | 268.35 |
| 1234 | Supply and fixing the following boards/sheets of approved brand & quality in panelling fixed in aluminium doors/window shutters/partition frames etc. with C.P brass/stainless steel screws etc. complete, all as per drawings, specifications and instructions of Engineer in charge. Rate includes cutting to required sizes, wastages etc.complete. Rate excludes cost of respective frame works. | | |
| A1 | MDF Boards or equivalent of 6 mm thick (Regular grade) | SQM | 303.65 |
| A2 | MDF Boards or equivalent of 18 mm thick (Regular grade) | SQM | 680.85 |
| A3 | Commercial plywood 6 mm thick - M.R Grade - (Anchor/Swati or equivalent) | SQM | 595.60 |
| A4 | Commercial plywood 12 mm thick - M.R Grade- (Anchor/Swati or equivalent) | SQM | 824.65 |
| A5 | Commercial plywood 6 mm thick-Synthetic resin bonded - (Anchor/Swati or equivalent) | SQM | 595.60 |
| A6 | Commercial plywood 12 mm thick-Synthetic resin bonded- (Anchor/Swati or equivalent) | SQM | 1222.35 |
| A7 | Cement bonded particle boards - 6 mm thick (Bison panel) | SQM | 339.95 |
| A8 | Cement bonded particle boards - 10 mm thick (Bison panel) | SQM | 489.10 |
| A9 | Cement bonded particle boards - 12 mm thick (Bison panel) | SQM | 588.50 |
| A10 | Cement bonded particle boards - 16 mm thick (Bison panel) | SQM | 685.00 |
| A11 | Both sides pre laminated Cement bonded particle boards - 6 mm thick (Bison panel) | SQM | 675.50 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A12 | Both sides pre laminated Cement bonded particle boards - 8 mm thick (Bison panel) | SQM | 725.20 |
| A13 | Both sides pre laminated Cement bonded particle boards - 10 mm thick (Bison panel) | SQM | 774.95 |
| A14 | Both sides pre laminated Cement bonded particle boards - 12 mm thick (Bison panel) | SQM | 843.30 |
| A15 | Both sides pre laminated Cement bonded particle boards - 16 mm thick (Bison panel) | SQM | 935.60 |
| A16 | Plain particle boards- 9 mm thick-Regular Grade-(Novapan-Prime or equivalent) | SQM | 366.05 |
| A17 | Plain particle boards- 12mm thick-Regular Grade-(Novapan-Prime or | SQM | 438.15 |
| A18 | Plain particle boards- 18mm thick-Regular Grade-(Novapan-Prime or equivalent) | SQM | 567.75 |
| A19 | Plain particle boards- 25mm thick-Regular Grade-(Novapan-Prime or equivalent) | SQM | 760.60 |
| A20 | Plain particle boards- 35mm thick-Regular Grade-(Novapan-Prime or equivalent) | SQM | 1136.25 |
| A21 | Plain particle boards- 9 mm thick-Exterior Grade-(Novapan-Prime or equivalent) | SQM | 419.50 |
| A22 | Plain particle boards- 12mm thick-Exterior Grade-(Novapan-Prime or equivalent) | SQM | 509.60 |
| A23 | Plain particle boards- 18mm thick-Exterior Grade-(Novapan-Prime or equivalent) | SQM | 665.90 |
| A24 | Plain particle boards- 25mm thick-Exterior Grade-(Novapan-Prime or equivalent) | SQM | 897.30 |
| A25 | Plain particle boards- 35mm thick-Exterior Grade-(Novapan-Prime or equivalent) | SQM | 1353.75 |
| A26 | Pre laminated (one side) particle boards - 9 mm thick - (Emotive or | SQM | 532.60 |
| A27 | Pre laminated (both sides) particle boards - 9 mm thick - (Emotive or | SQM | 538.85 |
| A28 | Pre laminated (one side) particle boards - 12 mm thick - (Emotive or | SQM | 614.60 |
| A29 | Pre laminated (both sides) particle boards - 12 mm thick - (Emotive or | SQM | 621.50 |
| A30 | Pre laminated (one side) particle boards - 18 mm thick - (Emotive or equivalent) | SQM | 718.15 |
| A31 | Pre laminated (both sides) particle boards - 18 mm thick - (Emotive or equivalent) | SQM | 724.70 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A32 | Pre laminated (one side) particle boards - 25 mm thick - (Emotive or equivalent) | SQM | 902.30 |
| A33 | Pre laminated (both sides) particle boards - 25 mm thick - (Emotive or equivalent) | SQM | 909.05 |
| 1235 | Supplying and fixing of vertical Venetian blinds 100mm wide with dual colour of approved make (Hunter Douglas make or equivalent) and shade and / as decided by BHEL - for windows / ventilators. Rate inclusive of cost of all materials, labour for fixing and incidentals etc., complete | SQM | 1191.95 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **XIII - PILE WORKS** | | |
| 1301 | Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap). | | |
| A | 300 mm dia piles | R.M | 1155.05 |
| B | 400 mm dia piles. | R.M | 1297.00 |
| C | 450 mm dia piles. | R.M | 1688.50 |
| 1302 | Boring, providing and installing cast in situ single under reamed vertical piles of specified diametre & required length below grade beam/pile cap in M 35 cement concrete piles using 20 mm & down grade hard broken granite stone jelly with necessary reinforcement including bailing out water, mobilisation of necessary plants, equipments, materials etc. complete. Rate also includes cost of boring with bentonite solution, chisseling, cutting the pile to the required cut off level, leaving necessary dowel to grade beam/pile cap etc. all as per standard specifications and as directed by the Engineer-in -charge. (Length of pile for payment shall be measured upto the bottom of grade beam/pile cap. Rate excludes cost of cement, reinforcement steel & fabrication charges for reinforcement) | | |
| A | 300 mm dia piles | R.M | 1736.45 |
| B | 400 mm dia piles | R.M | 1934.10 |
| C | 450 mm dia piles | R.M | 2049.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **XIV - HORTICULTURE** | | |
| 1401 | Labour charges for carrying out the following. Scope includes all labour, relevant tools & plants required for the work, disposing off all the wastes, cut leaves etc. in the nearby areas within a lead of 100 metre etc. complete. All as per instructions of Engineer-in-charge. | | |
| A | Mowing of lawns neatly to uniform levels. (By means of blade/ mower) | SQM | 2.30 |
| B | Cutting all types of hedges to the required & uniform height and width. | R.M | 3.85 |
| C | Cutting & trimming topiary work for various shrubs, domes etc. to the required sizes, shapes etc. complete. | EACH | 15.05 |
| 1402 | Conveying tree saplings / plants from BHEL and planting the same in the pits excavated (in the premises of BHEL), initial watering, forming bed etc., all as per instructions of Engineer-in-charge. Tree saplings / plants will be supplied at BHEL Nursery at free of cost. Rate includes conveyance,loading, unloading, lifting and planting, initial watering etc., complete. | EACH | 3.65 |
| 1403 | Maintaining the shrub plants available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making basin to proper size, manuring, cutting & trimming whenever necessary, cleaning the areas etc.complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. | EACH | 2.70 |
| 1404 | Maintaining the domes available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making the basin to proper size, manuring, pruning/trimming topiary work once in a month, cleaning the areas, diposing off all wastes, cut branches, leaves etc. in the nearby areas within a lead of 50 metre etc.complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month). | EACH | 27.00 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1405 | Maintaining the hedges (upto a height of 1.50 m) available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making basin along the hedges, manuring & cutting, pruning, trimming the hedges once in a month, cleaning the areas, diposing off all wastes, cut branches, leaves etc. in the nearby areas within a lead of 100 metre etc. complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure, hedge plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month). | R.M | 1.65 |
| 1406 | Maintaining rose beds at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in 15 days, making basin for rose plants, manuring, cutting & trimming whenever necessary, clearing the jungle, leveling the areas once in 15 days etc.complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month). | SQM | 2.25 |
| 1407 | Maintaining and safeguarding the lawns including flower beds available at various locations in BHEL. Maintenance covers watering once in two days, periodical weeding, mowing, scraping, raking, replacing flower beds, mulching the top soil and forming basins etc.all once in 45 days, manuring, cleaning the areas, diposing off all wastes, dried leaves etc. in the nearby areas within a lead of 100 metre etc.complete. Re-lawn is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure, plants & grass will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month). | SQM | 1.65 |
| 1408 | Maintenance and protection of avenue tree plants/coconut tree seedlings etc. available at various locations in BHEL. Maintenance covers watering once in two days, protecting the plants from cattle menace & theft by providing thorny fencing, periodical weeding, maintaining the area free from other vegetation growth, mulching the top soil and forming basin, manuring, cleaning the area etc.complete. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month). | EACH | 6.75 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1409 | Maintaining the potted plants available at Nursery & other locations by watering once in two days, mulching and weeding the soil once in a fortnight, application of manure/fertilizer/pesticides as and when required (normally three times in an year) pruning and shaping as and when required, repotting the plant once in a year, replacement of broken pots (pots & plants will be supplied by BHEL), propogation of different species of pots as directed etc.complete. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure / fertilizer / pesticides, pots & plants will be issued by BHEL at Stores or Nursery at free of cost. (Payment will be made for every month). | EACH | 2.70 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| | **XV - MISCELLANEOUS** | | |
| 1501 | Grouting the H.D bolts, underneath the base plates etc., after alignment with wet cement grout (1:1), all as per standard specifications. Rate includes cleaning the sleeves/pockets, tools and plants required for the work etc., complete except cement which will be supplied by BHEL at stores at free of cost.<br><br>Cement consumption - 1020.00 K.G/CUM | CUM | 16000.65 |
| 1502 | Grouting the H.D bolts, underneath the base plates etc., after alignment with non-shrink high strength cementitious grout of such as Tec. Grout 40 or Pidigrout 10M or Flogrout 60 or Conbextra GP2 or any other equivalent grout, all as per instructions of Engineer in charge and as per standard specifications. Rate includes cost of non-shrink grout, cleaning the sleeves/pockets, tools, labour etc., complete. | CUM | 53487.40 |
| 1503 | Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 100 x 100 mm at top and 150 x 150 mm at bottom and 1.70 m high of which 45 cm will be embedded in cement concrete base below ground level. Rate includes shuttering, casting, finishing, curing, conveying and fixing in position but excluding cost of excavation, concrete base and fabrication charges for reinforcement which will be paid separately under respective items.<br><br>Cement consumption - 8.64 K.G/ Each | EACH | 179.05 |
| 1504 | Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 100 x 100 mm at top and 150 x 150 mm at bottom and 2.10 m high of which 45 cm will be embedded in cement concrete base below ground level. Rate includes shuttering, casting, finishing, curing, conveying and fixing in position but excluding cost of excavation, concrete base and fabrication charges for reinforcement which will be paid separately under respective items.<br><br>Cement consumption - 10.56 K.G/ Each | EACH | 212.05 |
| 1505 | Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 200 x 200 x 3650 mm of which 600 mm (approx.) will be embedded in cement concrete base below ground level. Rate includes making necessary groove arrangements on two sides of post for inserting 50 mm thick precast slabs, shuttering, casting, embedding 'Y' angle with necessary lugs, finishing, curing, conveying the posts including all lead, erection in position by embedding in foundation concrete up to a depth of 600 mm (approx.) below ground level true to plumb, line, level etc.complete, all as per drawings and as per instructions of Engineer in charge. Rate excludes cost of excavation, concrete base, precast slabs and it's inserting/fixing charges, fabrication charges for reinforcement and 'Y' angle which will all be paid separately under respective items.<br><br>Cement consumption - 40.32 K.G/ Each | EACH | 880.25 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1506 | Conveying RCC fencing post of overall height 1.70 to 2.10 m from stores/stack yard to site of work and fixing in position, line, level etc. Earth work excavation and concrete base will be paid separately. | EACH | 31.35 |
| 1507 | Providing and fixing G.I barbed wire of 12 G, 2 ply and 4 barbs with spacing of barbs at 80 mm c/c for fencing including unwinding the coil and fixing in position with proper tension and alignment by means of providing G.I staples on wooden plugs or G.I binding wire tied to 6 mm bar ribs provided in the posts etc. complete. | R.M | 13.75 |
| 1508 | Conveying G.I barbed wire, G.I staples/binding wires etc. from BHEL stores and fixing in position for fencing including unwinding the coil, fixing it in posts with proper tension and alignment by means of G.I staples on wooden plugs or G.I binding wire tied to 6 mm bar ribs provided in the posts etc. complete. Rate excludes G.I barbed wire and G.I staples / binding wire which will be supplied by BHEL at stores at free of cost. | R.M | 1.45 |
| 1509 | Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. | | |
| A | 0 - 1 Km | CUM | 114.00 |
| B | Beyond 1 Km but upto 2 Km | CUM | 121.65 |
| C | Beyond 2 Km but upto 3 Km | CUM | 130.25 |
| D | Beyond 3 Km but upto 4 Km | CUM | 138.80 |
| E | Beyond 4 Km but upto 5 Km | CUM | 147.40 |
| 1510 | Transporting the garbage, horticulture waste etc., collected from houses, dustbins and other places by lorry having a capacity of minimum 300 cft covering with suitable net to avoid spilling during transport and unloading at the earmarked place on the eastern side of MHD. (Nearly 5 KM from the centre point of Kailasapuram) Rate also includes topping the dust bins, seggregation of bio-degradable & non-bio-degradable waste at respective dust bins itself, collection, loading, all lead, unloading, hire & running charges of lorry, tools required, all labour and all other incidentals etc.complete and as directed by the department. Trip sheet is to be maintained for each load that will be certified by the concerned official & by the security at the gate which will form the basis for making payment. Each load would exit only through the main entrance of Township or as directed by the Engineer in charge. Rate to be quoted for one trip of lorry load of 300 cft garbage. | EACH | 1014.05 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1511 | Conveyance of debris generated by dismantling and other modification works by various departments, factory wastes discarded cotton waste, slag, cut tree branches, dried leaves, abandoned broken glass, water closets, urinals, flush tanks, broken furniture, broken refractory bricks, AC materials, hedge cuttings and all other debris and waste materials from various places of factory premises where they are stacked / accumulated and transporting the same by contractor's lorry and disposing off at the specified places, all as per the instructions of Engineer-in-charge. Rate includes labour for collection of the said debris from various places, loading, leading, unloading, spreading, leveling etc. complete. Rate also includes for safe burning of dried leaves, cut pieces of tree branches, wood, waste paper etc., all by following safety precautions. Payment will be made on trip basis with a lorry load of minimum 300 cft./Trip. | | |
| A | 0-1 K.M | EACH | 774.75 |
| B | 1-2 K.M | EACH | 826.40 |
| C | 2-3 K.M | EACH | 878.10 |
| 1512 | Sweeping roads, drains, platforms, open spaces, surrounding areas of buildings, shops, parks, gardens, sides & back spaces in between bolcks, roof terrace of buildings at a maximum elevated level of 6 metre and other areas as identified & instructed by Engineer in charge. Rate includes labour, tools, brooms, malard, baskets etc., sweeping, hand picking of debris, collecting & dumping the debris in the near by dust bins/earmarked areas etc.complete. Sweeping has to be done only as and when necessary. Payment will be made only for the areas where sweeping was done. | 100 SQM | 13.00 |
| 1513 | Cleaning & removing all unwanted things from the roof terrace of various buildings at an elevated level of 12 to 20 metre from FFL. Rate includes labour, tools, wire brush, brooms, baskets etc., sweeping and clearing off all dirt, silt, dust, leaves and other foreign matters etc. without damaging the terrace treatment and thereby collecting all the wastes in bags/baskets, lowering to ground floor without affecting the working environment & dumping the same in the near by dust bins/earmarked areas/low lying areas etc.complete. Sweeping has to be done only as and when necessary. Payment will be made only for the areas where actually the job was carried out. | 100 SQM | 15.60 |
| 1514 | Labour charges for providing tarpaulin pandal to an area upto 25 Sq.m in ground floor / first floor and removing the same after the function is over. All materials such as tarpaulin, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation of materials. (Payment will be made for each operation) | EACH | 646.40 |
| 1515 | Labour charges for conveying 200 litre capacity drum and pouring with full of water for function and handing over the empty drum to Stores after function is over. Drum will be supplied by BHEL at Stores at free of charges. Water has to be collected either from Township water tanks or Equalising Reservoir. Rate includes to and fro transportation. | | |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| A | At Quarters of Kailasapuram / Kamarajapuram Township. | EACH | 264.05 |
| B | At Quarters of Nehru Nagar/ burial ground | EACH | 314.05 |
| 1516 | Labour charges for providing Shamiana of following sizes and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation. (Payment will be made for each operation) | | |
| A | 40' X 40' | EACH | 1597.50 |
| B | 40' X 20' | EACH | 1043.90 |
| C | 20' X 12' | EACH | 501.30 |
| 1517 | Hire charges for providing 4 ' 40 watts tube light fitting with tube, necessary wire, plug etc. in the tarpaulin pandal / shamiana at G.F / F.F and removing the same after the function is over. | EACH | 36.30 |
| 1518 | Labour charges for providing stage for functions and removing the same and handing over to Stores after the programme. Necessary stage materials will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation. | SQM | 40.10 |
| 1519 | Labour charges for erection of flag post and tying the flag. Rate includes digging hole, erection of post and removing the same after the function is over including refilling the hole and handing over the flag post, flag etc. to Stores after the programme. Necessary flag post and flag will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation. | EACH | 21.30 |
| 1520 | Labour charges for spreading coir mat and removing the same after the function is over.Rate includes to and fro transportation, labour etc. complete. Coir mat will be issued by BHEL at Stores at free of charges. | SQM | 5.90 |
| 1521 | Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate includes to and fro transportation of materials. (Payment will be made for each operation) | | |
| A | For stage of size 32' x 20' | EACH | 1358.80 |
| B | For stage of size 20' x 20' or 20' x 18' | EACH | 1052.10 |
| C | For stage of size 20' x 12' | EACH | 750.90 |
| 1522 | Carrying the following from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, to and fro transportation etc. | | |
| A | PVC moulded chair | EACH | 4.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| B | Wooden chair with cushion | EACH | 12.00 |
| 1523A | Labour charges for providing Shamiana of size 40' X 40' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. | EACH | 1421.45 |
| 1523B | Labour charges for providing Shamiana of size 40' X 20' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. | EACH | 911.90 |
| 1523C | Labour charges for providing Shamiana of size 20' X 12' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. | EACH | 402.30 |
| 1523D | Labour charges for providing stage for functions and removing the same and handing over to Stores after the programme. Necessary stage materials will be supplied by BHEL at Stores at free of charges transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. but including loading and unloading charges, instead of transporting by the contractor. | SQM | 32.20 |
| 1523E | Labour charges for loading, unloading and erection of flag post and tying the flag. Rate includes digging hole, erection of post and removing the same after the function is over including refilling the hole and handing over the flag post, flag etc. to Stores after the programme. Necessary flag post and flag will be supplied by BHEL at Stores at free of charges and transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. | EACH | 16.90 |
| 1523F | Labour charges for loading, unloading and spreading coir mat and removing the same after the function is over Coir mat will be issued by BHEL at Stores at free of charges. | SQM | 1.10 |
| 1523G | Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 32' x 20' | EACH | 1072.80 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1523H | Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 20' x 20' or 20' x 18' | EACH | 804.60 |
| 1523I | Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 20' x 12' | EACH | 536.40 |
| 1523J | Carrying the PVC moulded chair from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, loading and unloading charges but excludes to and fro transportation etc. | EACH | 0.85 |
| 1523K | Carrying the Wooden chair with cushion from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, loading and unloading charges but excludes to and fro transportation etc | EACH | 2.10 |
| 1524 | Maintenance of BG tracks of BHEL siding, ensuring perfect level, cant, alignment, straightness etc. Scope includes tightening of fish plates, oiling & greasing of fish plates, driving the spikes, beating the steel keys and cotters, checking the tie bars to keep the rails in position and gauge, packing the ballast (murram/stone), maintaining the width of earthern embankment, cutting of unwanted trees/tree branches on either sides of tracks, clearing off the jungle & bushes to a maximum width of 4.00 m along the track and handing over the cut woods to stores etc. complete, all as per standard railway practices and also taking periodic gauge/super elevation/curve readings and submission of records. Payment will be made for the length of track for which maintenance works attended to. Tools, oil, spares etc. required for the work will be supplied by BHEL at stores at free of charges. Rate will be Paid Per RM / One Operation | R.M | 49.60 |
| 1525 | Maintenance of point & crossing 1 in 8 ½ in BG by thorough packing and consolidation of ballast. Scope of work includes to bring the track to correct longitudinal and cross levels, super elevation on curve, boxing and tidying up the track to prescribed parameters with tolerance as allowed as per IRPWM, cleaning of fish plates, switches, point level, box assembling, oiling and greasing of joint / fish plates, moveable / sliding portion, cutting of unwanted trees/tree branches, clearing off jungle, bushes in & along the point & crossing area and handing over the cut woods to stores and taking periodic reading for maintaining the point & crossing register and submission of record, all as per standards of Indian Railways. Tools, oil, spares etc. required for the work will be supplied by BHEL at stores at free of charges. Rate will be Paid Per Point and Crossing per One time Operation | EACH | 3693.55 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1526 | Cutting 90/105 lbs rail with hacksaw blade to the correct square in laid condition/free condition. Rate includes labour, tools, consumables, lead, lift etc. complete, all as directed by the Engineer-in-charge. Payment will be made for each Cutting. | EACH | 131.60 |
| 1527 | Drilling 32 mm dia hole in 90/105 lbs rails to match with the fish plate holes in laid condition / free condition. Rate includes labour, tools, consumables, lead, lift etc. complete, all as directed by the Engineer-in-charge. Payment will be made per Hole. | EACH | 40.60 |
| 1528 | Removing the ballasts (metal/murram), earth etc.alround the sleepers and replacing to the existing unserviceable sleepers of various lengths from the BG track and relaying with new sleepers in the same place by duly fixing the sleepers with the rail and its fittings and packing the sleepers completely with ballasts (metal/murram) to correct level, cant, alignment etc.complete. For replacement, sleepers (Wooden/PSC/CST-9/Pot sleepers) and other connected accessories, ballasts etc. will be supplied by BHEL at stores at free of cost. Payment will be made per Sleeper | EACH | 320.45 |
| 1529 | Carrying from stacks, leading and spreading of 40/50 mm size metal/ gravel/murram at any section of the BG track, all as per instructions of Engineer-in-charge. Rate includes all labour, incidentals etc. complete. | CUM | 103.90 |
| 1530 | Removing and replacing with 90/105 lbs rails for the track, all as per standard specifications. Removed rails and other materials shall be stacked properly at the locations 'or' conveyed and handed over at stores, all as directed by the Engineer-in-charge. 90/105 lbs rails & connected required materials will be supplied at free of cost at RPS/Civil Stores/Stack yard. Rate includes conveyance, handling, straightening, drilling holes in rails to suit fish plates, hacksaw cutting the rail if required, all labour for removing the existing and replacing with new one in correct position, alignment, all other incidentals etc.complete. | M.T | 3793.35 |
| 1531 | Cleaning & removing all the unwanted things from the rain water gutters available at an elevation of 12 to 20 m from FFL and making the gutter free from all accumulations, all as per instructions of Engineer-in-charge. Scope includes thorough cleaning off all dirt, dust, silt, leaves, other foreign matters etc. complete from the gutters using wire brush without damaging to the existing treatment given in the gutters, collecting the wastes in bags, lowering and conveying the same to the floor & dumping in the low lying areas. Rate includes all labour, tools, other incidentals etc. complete. Since the work is to be carried out at elevated levels/DSL EOT crane areas, the contractor is required to take all safety precautions during working and obtain work permit from the concerned departments. Working hour is restricted as it depends on shut down by the Production department that may not be more than 4 hour at a stretch and only intermittent. | SQM | 11.30 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1532 | Removing beehive of any size carefully in all levels at stage beams, columns, slabs, ladders etc., in the overhead tank or other buildings/structures etc. While removing beehive, the contractor should follow all safety rules & regulations, all as per instructions of Engineer-in-charge. | EACH | 330.00 |
| 1533 | Carrying from BHEL stores to site of work and fixing GI chainlink mesh for fencing including unwinding the roll and fixing in proper position, tension and alignment by means of MS flat as stiffeners, drilled with necessary holes or as the case may be and fixed with RCC / MS fencing posts by bolts, nuts, washers etc., complete. Payment will be made based on the laid area of chainlink mesh only. Rate includes cost of labour, tools & plants and all other incidentals etc., complete but excludes cost of chain link mesh, MS flats, bots, nuts and washers which will be supplied by BHEL at stores at free of cost. Fabrication charges for MS flats including drilling holes etc. will be paid under separate item. | SQM | 16.50 |
| 1534 | Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge. | | |
| a) | Made of G.I. wire of dia 4 mm. | EACH | 475.15 |
| b) | Made of G.I. wire of dia 4 mm, PVC coated to achieve outer dia. not less than 5 mm in required colour and shade. | EACH | 506.35 |
| 1535 | Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-Charge. | SQM | 569.90 |
| 1536 | Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete. | | |
| A | 10- 14 mm diameter | EACH | 65.00 |
| B | 15 – 18 mm diameter | EACH | 76.85 |
| C | 19 – 23 mm diameter | EACH | 88.70 |
| D | 24 – 28 mm diameter | EACH | 100.50 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1537 | Cleaning of Septic tanks including removal of all sludge/waste material with septic tank cleaning vehicle of tank capacity of 7000 litres and conveying the waste to all leads and disposal off.Rate includes hire and running charges for the septic tank cleaning vehicle with driver and labour for cleaning the septic tank, cost of tools and plants, all incidental charges, leading disposing off the sewage and wastages etc as per the instructions of Engineer in Charge. Payment will be made for one trip up to a maximum of 7000 litres quantity of sewage | TRIP | 2687.50 |
| 1538 | Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance,tools and all other incidental charges etc.complete -for In accessible areas One Primer and one top coat | SQM | 335.50 |
| 1539 | Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance,tools and all other incidental charges etc.complete.<br>-for In accessible areas.<br>One primer and two top coats | SQM | 518.30 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1540 | Providing two coats of CERALASTIC/TEC WAVE 2000/Sika raingard/NACC roof coating /Dr. FIXIT PIDIFIN 2K water proofing membrane coating followed by one bond coat of CERA BOND SBR/TEC BOND SBR/Sika latex/NACC Latex / Dr. FIXIT PIDICRETE URP SBR LATEX over the membrane coating and providing cement plastering 6mm thick in CM 1:4 admixed with general purpose water proofing compound of respective products and curing adequately.All as per manufacturer's recommendation / standard specifications and instructions of Engneer-in-charge.The scope of work includes dismantling the existing damaged weathering course and tiles to expose to the RCC slab and finsihing to match with the existing weathering course.. Rate quoted includes cost of all materials except cement which will be issued free of cost at BHEL stores, labour charges, conveyance, tools and all other incidental charges etc., complete. Replacing the damaged tiles and re-pointing where ever required which will be paid under separate item.- for-accessible areas.(CEMENT CONSUMPTION=2.74KG/SQM) | SQM | 338.25 |
| 1541 | Attending crack filling at parapet level with pressure grouting: The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and allowing the sealant to set overnight, driving grouting nozzles at intervals of 1M and grouting neat cement slurry admixed with expansive grouting additive CERA EXPAN 250/TEC SWELL/Sika INTRA PLAST/NACC EXPAN/Dr. FIXIT PIDICRETE AM 250 and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAINGARD/NACC HIGH FLEX /Dr. FIXIT NEW COAT roof coating single component flexible membrane for a width of 15cms aligned to the centre of the crack. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance, tools and all other incidental charges etc., complete,but excluding cost of cement which will be issued free of cost at BHEL stores (CEMENT CONSUMPTION=0.35 Kg/SQM) | SQM | 151.25 |
| 1542 | Attending Crack filling at parapet level without pressure gouting. The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAIN GARD/NACC ROOF COATING/Dr. FIXIT NEW COAT highly flexible membrane for a width of 10cms aligned to the centre of the crack. All as per / manufacturers recommendations/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges,conveyance, tools and all other incidental charges ,etc. complete. | RM | 112.75 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1543 | Drilling pockets and fixing PVC Nipples in position along weak concrete junctions and leakage points in walls/floor and pressure grouting CERA EXPAN 250 / TEC SWELL/Sika INTRA PLAST/NACC EXPAN / Dr. FIXIT PIDICRETE AM 250 expansive grouting additive admixed with cement slurry using hand operated grouting pump. The scope also includes plugging the grout hole with CERA PLUG/TEC STOP / Sika HYDRO PLUG / NACC PLUG / Dr. FIXIT INSTANT LEAK PLUG .All as per manufacturer's recommendations/ standard specifications and instructions of Engineer- in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges except cement which will be issued free of cost at BHEL stores.<br>(CEMENT CONSUMPTION=0.35 Kg/POINT) . | POINT | 145.75 |
| 1544 | Providing one coat of Antifungal coating - tec touch /Cera re-played/Sika Multi guard or Sika gard 67/NACC acrylic/Dr. FIXIT DAMPGAURD - protective and decorative coating system as per manufacturer's recommendations/ standard specifications and instructions of Engineer-in-charge.The scope of work includes surface preparation including cleaning the wall surfaces to be free of previous coatings, dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with putty. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete. | SQM | 203.20 |
| 1545 | Arresting leakage through RCC Construction joints The scope of work includes routing out the horizontal cracks along /contruction joints to expose the RCC joint and applying CERA SEAL / TEC POLYSEAL G / Sika Crack Seal / NACC poly seal gun grade polysulphide sealant / Dr.FIXIT PU SEALANT. The scope also includes application of CERAFLEX / TEC WAVE 3000/Sika Rain Gard/NACC Roof Coating / Dr. FIXIT NEW COAT single component flexible membrane with intermediate layer of cloth over the exposed area after allowing the PS(polysulphide sealant) to cure for 72 hours. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete. | SQM | 499.10 |

| Item No. | Description | Unit | Rate (Rs.P) |
|---|---|---|---|
| 1546 | Arresting leakage through Masonry consruction joints. The scope of work includes routing out the vertical cracks along construction joints and providing a bond coat of CERA BOND SBR / TEC BOND SBR /Sika Latex Power/NACC latex/ Dr. FIXIT PIDICRETE URP SBR LATEX followed by filling the cracks with repair mortar admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expan/Dr. FIXIT PIDICRETE AM 250. The scope also includes placing of grouting nipples on the neatly finished surface at adequate spacing and grouting cement slurry admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expand/Dr. FIXIT PIDICRETE AM 250 using hand operated grouting pump. The treated surface shall then be finished with two coats of CERAFLEX / TEC WAVE 3000 / Sika Rain gard/NACC Roof Coating/ Dr. FIXIT NEW COAT . All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge.Rate quoted includes cost of all materials , labour charges, conveyance, tools and other incidental charges etc.complete but excluding cost of cement which will be issued free of cost at BHEL stores.<br>(CEMENT CONSUMPTION=0.4 Kg/RM) . | RM | 262.20 |
| 1547 | Providing aluminum Sheet Flashing. The scope of work includes cutting a neat groove along the brick wall and fixing Aluminum sheet flashing of 1' to 1'6" as required including re-filling the grooves and sealing the joints with CERA SEAL / TEC POLYSEAL G /Sika Polysulphide/NACC poly seal gun grade polysulphide sealant/Dr. FIXIT PU SEALANT.All as per Manufacturer's recommendations / standard specifications and instructions of Engineer-in-Charge. Rate quoted includes cost of all materials , labour charges , conveyance, tools and other incidental charges etc.complete. | RM | 479.80 |