

**Bharat Heavy Electricals Limited**  
**Heavy Plates & Vessels Plant**  
Visakhapatnam – 530 012,  
Andhra Pradesh, INDIA.



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## NOTICE INVITING TENDER

Ref : OS/HR/CSR/2015-16/07/008

Date : 03.06.2015

Sub : **Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

Sealed tenders are invited in **Two Bid system** from the reputed and experienced contractors with sound technical and financial capability for the subject work.

SL. NO.	NAME OF THE WORK	ESTIMATE VALUE Rs.	EMD Rs.	COST OF TENDER Rs.	WORK COMPLETION PERIOD	LAST DATE FOR RECEIPT OF TENDER
01	Construction of 96 Residential Flats in G+3 pattern including Electrical Works in Aganampudi Village, Gajuwaka Mandal, Visakhapatnam under CSR as per detailed scope of work for HUD HUD Cyclone affected people	<b>476 Lakhs</b>	<b>2.00 Lakhs</b>	<b>1000/-</b>	<b>18 ( Eighteen ) Months from Date of Issue of LOI.</b>	<b>25.06.2015 upto 13.00 Hrs.</b>

### 1.0 ELIGIBILITY CRITERIA

- I) Average annual turnover of the contractor during the last 3 years ending 31<sup>st</sup> March 2014 should be at least 30% of the estimated cost (i.e. Rs.143 Lakhs)
- II) The Contractor should have experience of completing similar works during last 7 years ending 31<sup>st</sup> April'2015 as given below:
  - (a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost (i.e. Rs.190 Lakhs each)
  - OR
  - (b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost (i.e. Rs.238 Lakhs each)
  - OR
  - (c) One similar completed work costing not less than the amount equal to 80% of the estimated cost (i.e. Rs.381 Lakhs)
- III) Job Completion Certificates from the customers shall be enclosed in support of successful and satisfactory completion of orders for similar works.

**Note** : Similar work means Construction of Residential Buildings / Apartments including Electrical works.
- IV) Registration documents for EPF, ESI, PAN & Service Tax, TIN, IT returns acknowledged by IT Office, Profit & Loss Account and Balance Sheet for the last 3 financial years (2011-12, 12-13 & 13-14) certified by an auditor shall have to be enclosed with the tender. IT Returns should be in the name of the firm / individual quoting for the work.
- V) The works executed in the name of individual / firm of the tenderer will only be considered for eligibility criteria.
- VI) Latest solvency certificate (within 6 months) from the Banker shall be produced for at least 40% of the estimate cost of the work. (i.e. Rs. 190 Lakhs)

2.0 **QUALIFICATION NORMS :**

The norms for qualification with prescribed score is attached at Annexure - VII in the Bid Document and evaluation will be done accordingly. Minimum score required for qualification is 60.

Technical evaluation will be done based on the eligibility criteria, qualification norms, experience in execution of similar works, turn over for the last three financial years etc.

3.0 **SCOPE OF THE WORK**

The detailed scope of work is given in the Technical & Special Conditions of Contract as per Annexure – III & IV and as per Schedule of Quantities & Rates enclosed as Annexure - XI.

4.0 **LOCATION OF WORK**

4.1 The subject job is to be carried out at Aganampudi Village, Gajuwaka Mandal, Visakhapatnam, Andhra Pradesh.

4.2 The intending tenderers are advised to visit the above place and get themselves acquainted with the site conditions, applicable statutory rules & regulations and satisfy themselves of all the conditions prevailing there before submission of their tenders.

5.0 **DELIVERY SCHEDULE :**

5.1 Time is the essence of the contract. Being a time bound CSR scheme, the contractor should make all efforts to complete the work in **18 (Eighteen) Months** from the date of Issue of LOI.

5.2 Delivery Period for the purpose of computation of LD shall be calculated from the date of issue of LOI.

6.0 **PRICE SCHEDULE :**

6.1 The prices shall be quoted in **Schedules of Quantities and Rates (Annexure – XI)** attached to the tender.

The quoted prices shall be **inclusive of WCT and all other applicable taxes & duties except Service Tax**. Service Tax as applicable shall be reimbursed on submission of proof of payment.

6.2 The quoted prices shall be fixed & firm without any escalation during the entire period of contract and till completion of the work.

6.3 In case of any mismatch between the quoted rates and amounts, the quoted rates shall be considered as final. It may be noted that corrections, overwriting etc. are not allowed.

7.0 **INCOME TAX AND WORKS CONTRACT TAX :**

Income tax and Works Contract Tax applicable as per the prevailing acts will be deducted from the payments made to the contractor and TDS certificate will be issued to this effect.

8.0 **REVERSE AUCTION :**

BHEL reserves the right to opt for Reverse Auction at its discretion instead of opening the price bids submitted in sealed envelope and the decision to conduct RA or otherwise shall be taken after technical evaluation and intimated to the bidders at appropriate time. General terms and conditions governing RA are mentioned at **Annexure - VIII**. The bidders are requested to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids in case BHEL decides to go for RA.

In case BHEL decides to go for RA, only those bidders who give their acceptance will be allowed to participate in RA and these bidders shall have to necessarily submit 'Online Sealed Bid' in the RA. Non-submission of 'Online Sealed Bid' by the bidder will be considered as tampering of the tendering process and will invite action by BHEL as per extent guidelines in vogue.

9.0 **SECURITY DEPOSIT** :

After issue of the Letter of Intent, Security Deposit is to be deposited for an amount specified and detailed in **Clause 4.0 of Section-V at Annexure – III.**

10.0 **COST OF TENDER DOCUMENTS / EARNEST MONEY DEPOSIT**

10.1 The tender shall be accompanied with a Demand Draft / Banker's Cheque of Rs. 1000/- (Rupees One Thousand only) towards the Cost of Tender documents (Non-Refundable) and another DD / Banker's Cheque for Rs.2,00,000 (Rupees Two Lakhs only) towards EMD both drawn in favour of **BHARAT HEAVY ELECTRICALS LIMITED**, payable at Visakhapatnam.

10.2 EMD of unsuccessful tenderers shall be returned without any interest after acceptance of award of work by the successful bidder.

10.3 EMD of the bidders shall be forfeited in the following cases :

- (i) After opening of the tender, if the tenderer revokes his tender within the validity period or increases his earlier quoted rates.
- (ii) The Tenderer does not commence the work within the stipulated period after issue of LOI / award of Contract.

10.4 EMD of successful tenderer shall be converted and adjusted against the Security Deposit.

11.0 **GENERAL** :

11.1 **Bidders shall confirm their acceptance to all the terms & conditions of the tender enquiry.**

Deviations to the tender conditions are not acceptable and BHEL-HPVP reserves the right to reject such offers which do not meet Technical / Commercial requirements without any / further correspondence.

11.2 **BHEL reserves the right to modify or cancel or short close the tender at any stage at its discretion without assigning any reason thereof.**

11.3 The bidders shall study the Tender documents, Drawings, Quality Documents and all other relevant documents in detail for understanding the scope of work involved in various items before submission of offers. One complete set of reference drawings and other relevant documents pertaining to subject job / Project covered in the scope of this tender are available at Outsourcing Dept. and the same can be referred during working hours from 9.00 AM to 4.00 PM.

11.4 For any clarifications required on this tender document, scope of work etc., the bidders shall depute their authorized representatives to HPVP, Visakhapatnam with prior intimation to get clarifications from concerned authorities.

11.5 Manager (WE - Civil) shall be the Engineer-in-charge for herein after referred to as such in the tender.

11.6 Lowest offer need not be the rate acceptable to BHEL-HPVP. BHEL-HPVP reserves the right for negotiation with the L1 bidders or opt for Reverse Auction as per applicable guidelines.

11.7 The following documents shall form part of the contract including this Notice Inviting Tender.

**Part - I : TECHNO - COMMERCIAL BID**

- |   |                     |
|---|---------------------|
| a) Instruction to tenderers                                       | : Annexure – I      |
| b) Submission of Tender   | : Annexure – II     |
| c) Technical & Special Conditions of Contract                     | : Annexure – III    |
| d) Scope of Work (Civil)  | : Annexure – IV (A) |
| e) Scope of Work (Electrical)                                     | : Annexure – IV (B) |
| f) Time Schedule  | : Annexure – V      |
| g) Special Instructions to Contractor                             | : Annexure – VI     |
| h) Norms for Qualification  | : Annexure – VII    |
| i) General Terms & Conditions of Reverse Auction                  | : Annexure – VIII   |
| j) Acceptance to the tender terms & conditions                    | : Annexure – IX     |
| k) Check list of Documents to be submitted with Qualification Bid | : Annexure – X      |

**Part - II : PRICE BID**

- |                                |                 |
|--------------------------------|-----------------|
| Schedule of Quantities & Rates | : Annexure – XI |
|--------------------------------|-----------------|

12.0 **TENDER COLLECTION :**

Tender Documents can be obtained from 03.06.2015 to 22.06.2015 between 8.30 Hrs. to 16.00 Hrs. from the office of Sr. Manager (OS) by submitting a request letter on the tenderer's letter head along with a Demand Draft / Banker's Cheque for an amount of Rs.1,000/- (**Rupees One Thousand only**) towards Tender Cost in favour of Bharat Heavy Electricals Limited, payable at Visakhapatnam. Offers will be received upto 13.00 Hrs. on 25.06.2015 and will be opened at 14.00 Hrs. on 25.06.2015 in the presence of tenderers present.

Tender Documents can also be downloaded from our Website [www.bhel.com](http://www.bhel.com), [www.bhelviz.co.in/tenders/outsourcing](http://www.bhelviz.co.in/tenders/outsourcing). In such a case, DD towards Tender Cost shall be enclosed along with the DD for EMD.

13.0 **TENDER SUBMISSION :**

13.1 Tender for the subject work should be submitted in a big sealed cover consisting of **three sealed covers** as detailed below :

**Cover - I** containing **Tender Cost & EMD** as detailed below :

- (i) Tender Cost of Rs.1,000/- (**Rupees One Thousand only**) in the form of Demand Draft / Banker's Cheque in favour of Bharat Heavy Electricals Limited, payable at Visakhapatnam.
- ii) Earnest Money Deposit of Rs.2,00,000/-- (**Rupees Two Lakhs only**) in the form of Demand Draft / Banker's Cheque drawn in favour of Bharat Heavy Electricals Limited, Visakhapatnam.

**Cover - II** containing **Techno-Commercial Bid** along with the following documents :

- (i) Tender documents duly filled in and signed by the tenderer on all the pages of the tender enquiry
- (ii) I.T. Clearance certificates / Acknowledgement of submission of the IT Returns for the last 3 years and copy of PAN card.
- (iii) ESI, P.F. Registration Code
- (iv) Service Tax Registration No., TIN No.
- (v) Solvency Certificate
- (vi) Documentary evidences for pre-qualification such as experience, value of similar nature of work executed, etc. in line with eligibility criteria.
- (vii) All other applicable documents as detailed in the tender

Any bids without proper documentary evidence for pre-qualification shall not be considered for further evaluation.

**Cover - III containing the Price Bid** document in the prescribed format at Annexure – XI (Schedule of Quantities & Rates) duly filled in and signed by the tenderer on all the pages.

All the three covers shall be kept in **another** bigger size envelope duly super scribing the Subject (name of work), Tender enquiry reference, the contents etc. on all the envelopes.

- 13.2 The tender documents including the supporting documents should be **signed** by the bidder **on all pages along with the seal** .
- 13.3 Last date for receipt of tenders completed in all respects is **25.06.2015 upto 13.00 hrs.**

The tenders shall **be dropped** in the **Outsourcing** tender box placed at reception counter, ADM building, BHEL - HPVP, Visakhapatnam **latest by 13.00 Hrs. on 25.06.2015.**

Bidders may also send their offers by Post to the following address so as to reach on or before **13.00 Hrs. on 25.06.2015.**

**Outsourcing Tender Box,  
Admn. Building,  
BHEL - HPVP,  
VISAKHAPATNAM  
PIN – 530012.**

BHEL-HPVP shall not be responsible for any postal or other delays in submission of offers.

- 13.4 The Tenderer shall submit their offer which satisfies each and every condition laid down in the Annexure - II i.e. "SUBMISSION OF TENDER" failing which the tender will be liable for rejection.
- 13.5 Submission of offer by a tenderer implies that all the tender documents were read by the tenderer and the tenderer is aware of the scope and specifications of the work, site condition, local conditions and rates at which stores, tools and plant, free / chargeable materials (if applicable) etc., will be issued to the contractor by BHEL - HPVP and other factors having bearing on the execution of the work.

**14.0 VALIDITY OF OFFER :**

The offer shall be valid for a period of **3 months** from the last date for tender submission.


**15.0 OPENING OF TENDERS :**

Techno-commercial Bids will be opened on **25.06.2015 at 14.00 Hrs.** at Customer Cell, Admn. Building, BHEL- HPVP. The bidders may depute their representatives at the time of opening. The price bid of the technically qualified bidders will also be opened in the presence of representatives of the bidders and the date & time of opening of price bids will be intimated later. In case of reverse auction, the date of conducting reverse auction will be intimated in advance at appropriate time.

- 16.0 **Bids not accompanied by requisite Tender Cost and Earnest Money Deposit, Late / Delayed bids will not be considered for opening.** No communication or correspondence will be entertained in this regard.

Yours Faithfully,

**For BHARAT HEAVY ELECTRICALS LIMITED,**

  
(MSVSN Murthy)  
Sr. Manager (OS) 03/06/15

**INSTRUCTIONS TO TENDERERS**

1.0 All documents issued along with Notice Inviting Tender shall be duly filled in & signed by the tenderer on each page and shall be submitted along with the tender.

2.0 Tender must be submitted in sealed envelope as per procedure indicated in “Notice inviting Tender” and delivered / submitted on or before due date.

The sealed envelopes shall be super scribed with **“Tender for Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR”**.

2.1 Tenders sealed and super scribed as above may also be sent by Registered post to the address mentioned in “Notice inviting Tender”. Tenders which are received after the due date specified are liable to be rejected. Any tenders delivered or sent otherwise will be at the risk of the tenderers.

2.2 Tender forms containing OVER WRITTEN or ERASED rate or rates and amount not shown in FIGURES and WORDS in English are liable to be rejected. All corrections and alterations made in the enquiries of tender must be attested by the tenderer with full signature. Unit rates written in words shall be taken into consideration.

2.3 Tenderers quoting rates from units different from those prescribed in the tender schedules are liable to be rejected. If a tenderer seeks to clarify his quotation or rates, this would only be done in a separate covering letter before the time of opening of tender. No modification to the specification, item descriptions, contract clauses etc., will however be entertained. Other clarifications may be considered if the contents of the covering letter are to be considered as part of the quotation. This should be specially mentioned by the tenderer. If any of these conditions admitted for consideration has a final bearing on the quoted value, then the additional cost arising out of this condition will be added for comparative evaluation of tender.

Any tender containing clerical or arithmetical mistakes may be rejected. Any request from the tenderer in respect of additions, alterations, modifications corrections etc., of either terms and conditions or rates of the tender after opening of the tender may lead to rejection of the tender.

2.4 By submitting a tender for the work, a tenderer will be deemed to have satisfied himself by actual inspection of the site and local conditions of work and that the rates quoted by him in the tender will be adequate to complete such works according to the specifications and conditions attached thereto. He has also to quote labour rates which shall include cost of materials and consumables and all other charges on supervision etc., necessary for completion the work to the entire satisfaction.

2.5 Acceptance of the tender will be intimated to the successful tenderer through a Letter of Intent in triplicate. The contractor has to acknowledge the LOI by duly signing on two copies and return the same as indicated in LOI. Till such time formal agreement is signed, the tenderer and the LOI shall constitute a binding contract for all purposes between BHEL - HPVP and the contractor. The contractor shall then be required to execute an agreement within the time specified in the Letter of Intent. In the event of failure in the part of contractor to sign the agreement within the specified time, the amount of Earnest Money submitted shall be forfeited and the acceptance of his tender shall be considered as withdrawn. No contract work however petty may be carried out except under and in accordance with a duly executed agreement or work order from a duly Authorized Office of the Employee. No Agreement is valid unless signed by the contractor or his duly authorized agent and by a competent person on behalf of the Employer. The Sr. Manager (OS) or his authorized representative is authorized to sign the contract documents on behalf of the Employer in respect of all the contracts and will discharge the functions and duties laid down on behalf of the Employer. He will also receive such notices, which are to be received as per the terms of the contract.

- 2.6 All signatures in the tender documents should be dated and all pages of all sections of the Tender documents shall be signed at the lower right hand corner or signed wherever required in the tender papers by the tenderer or his authorized representative.
- 2.7 Tender in which any particulars and prescribed information is missing or incomplete in any respect are liable for rejection. Tenders containing uncalled for remarks or any conditions are liable for rejection. No pages of tender documents shall be removed or altered and the whole set as given by the department must be submitted after being duly filled in and signed on each page. Failure to comply with these instructions may result in the rejection of the tender. Canvassing in any form is strictly prohibited and the tenders submitted by the tenders who resort canvassing will be liable for rejection.
- 2.8 If a tenderer has a relative employed in any capacity in BHEL - HPVP., he shall inform the authority calling for tenders of the fact while submitting his tender failing which his contract may be liable to make good to the Employer any loss or damage resulting from such cancellation to the extent provided in the case of cancellation under the General Conditions of contract.
- 2.9 The successful tenderer shall make his own arrangements for all materials except as specified in the contract if any.

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**Ref : OS/HR/CSR/2015-16/07/008**

**Date : 03.06.2015**

- 6) We agree to come to Visakhapatnam for technical discussions or negotiations if BHEL - HPVP so desires with a notice of three (03) days .The address for such communication is
- a) M/s..... Place..... Fax No.....  
Telex No..... Phone No.....
  - b) Mobile phone No.....E- Mail.....
  - c) Should this tender be accepted we hereby agree to abide by and fulfill all terms & conditions of the tender Documents and in default thereof to forfeit and pay to BHEL - HPVP or its Successors or its Authorized nominees such sums of money as are stipulated in conditions contained in tender documents together with the written acceptance. We understand that BHEL - HPVP is not bound to accept the lowest or any Tender received in full or in part / parts.
  - d) We enclose herewith evidence of our experience of execution of works of similar nature and magnitude carried out by us in the prescribed proforma.
  - e) Unless and until a formal Contract is prepared and executed, this tender together with written acceptance thereof, shall constitute a binding contract between BHEL- HPVP and Ourselves.
  - f) We herewith authorize Sri .....in the capacity of .....to sign the tender documents, to participate in Technical discussions and negotiations if required by BHEL - HPVP and offer confirmation and revised bid if so required by BHEL - HPVP.

Dated this.....day of .....2015

For and on behalf of.....  
.....

(With Seal )

Witness :

Signature:.....

Name in Block letters

Name :.....  
In the Capacity of .....

Address :

.....  
.....

**CONTRACTOR'S REPRESENTATIVE  
DULY AUTHORISED TO SIGN TENDERS**

**PART – I**

**(TECHNO-COMMERCIAL BID)**

**TECHNICAL & SPECIAL CONDITIONS OF CONTRACT**

**INDEX**

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**SCOPE AND OTHER TECHNICAL DETAILS OF WORK**

**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

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**1.0 Owner**

The owner of this project is M/s. BHEL - HPVP, Visakhapatnam and the works are to be executed at Aganampudi Village, Gajuwaka Mandal, Visakhapatnam in Andhra Pradesh State.

**2.0 Consultants / Inspection Agency**

M/s, BHEL - HPVP / APSHCL / or authorized inspection agency shall be the inspection agency for this project.

**3.0 Scope of Work**

The scope of work is mentioned elsewhere in the contract separately at **Annexure - IV**.

**4.0 Precedence of Special Conditions**

These special conditions are to be read in conjunction with General Conditions of Contract. Wherever the provisions of these special Conditions are at variance with the provisions of General Conditions, the provisions in these Special Conditions shall take precedence.

**5.0 Setting out of Works and Site Instructions**

The Engineer-in-Charge shall furnish the Contractor with only the four corners of the work site, level benchmark and the Contractor shall set out the works and shall provide efficient staff for the purpose and shall be solely responsible for the accuracy of such setting out.

5.1 The contractor shall provide, fix and be responsible for the maintenance of all necessary bench marks, templates, profiles and other similar things and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for consequences of such removal or disturbance should the same take place and for their efficient and timely reinstatement. The contractor shall also be responsible for the maintenance of all existing survey marks either existing or supplied and fixed by the Contractor. The work shall be set out to the satisfaction of the Engineer-in-Charge/Site in-charge. The approval thereof or joining in set out the work shall not relieve the contractor of his responsibility.

5.2 Before beginning the works, the contractor shall at his own cost provide all necessary **references** and level post, page, bamboos, flags, ranging rods, strings, and other materials for proper layout of the work in accordance with the scheme for bearing marks acceptable to the Engineer-in-Charge. The center longitudinal or face lines and cross lines shall be marked by means of small masonry pillars. Each pillar shall have distinct marks at the center to enable theodolite to be set over it. No work shall be started until all these points are checked and approved by Engineer-In-Charge in writing. But such approval shall not relieve the contractor of any of his responsibilities. The contractor shall also provide all labour, materials and other facilities, as necessary for the proper checking of lay out and inspection of the points during construction.

5.3 Pillars bearing geodetic marks located at the site of units of works under construction should be protected and fenced by the contractor.

5.4 On Completion of works, the contractor shall submit the geodetic documents according to which the work was carried out.

**5.5 Temporary Works**

All temporary, ancillary and testing works including enabling works connected with the work shall be the responsibility of the contractor and the price quoted by them shall be deemed to have been included in the cost of such works, which shall be removed by the contractor at his cost, immediately after completion of his work.

**6.0 Distinction between Foundation and Super Structure**

To distinguish between work in foundations and super structures the following criteria shall apply:

All works up to the level corresponding to **finished floor level (FFL)** shall be treated as work in "Foundation & Plinth" and all works above the finished floor level shall be treated as "Work in superstructure" irrespective of what has been stated above. All pavements, Retaining wall, all pipe sleepers and any similar item would be taken as work done in foundations irrespective of locations nomenclature and levels given anywhere. Where not specifically pointed out all works in cellars, sumps, tank pads, cable trenches or such similar items would be taken as work in foundations. For the various works in case of contradictions, the leads mentioned in the schedule of Quantities & Rates shall prevail over those indicated in Technical specifications.

**7.0 Rate, Quantum and Quality of Work**

- 7.1 The works and "Schedule of Quantities & Rates" wherever appearing in the tender documents shall have the same meaning.
- 7.2 The Schedule of Quantities & Rates is (are) to be read in conjunction with the tender, general and particular specifications, general and special conditions of contract and drawings. These documents are jointly complimentary to each other and are explanatory and descriptive of the works involved in the contract where the provision in the description of the item in the SOQR are at variance with the provision in the general conditions, special conditions, technical specifications and drawing, the provisions in the description of the item shall take precedence.
- 7.3 Tenderers are advised to go through the tender provisions carefully and quote their rates taking in to account all the various provisions of these documents and/or which are not specifically brought out by the tenderer at the time of submission of tender.
- 7.4 The drawings attached with these documents are for the purpose of tender only, giving the tenderer the general idea of the major and extent of works to be executed. Detailed approved construction drawings will be issued after final engineering for the purpose of construction. The rate quoted by the tenderer shall be deemed to be for the execution of works in accordance with the construction drawings to be supplied taking into account the design aspect of these drawings and the specifications of M/s BHEL - HPVP / Consultants for materials and workmanship.
- 7.5 The quantities of work shown in the Schedule of Quantities & Rates are approximate and shall not be considered to be limiting the scope of the work in any way. Work shall be measured on completion and priced at the rates quoted in Schedule of Quantities under the relevant item of works.
- 7.6 General directions and descriptions of works and materials given elsewhere in the tender documents are not necessarily repeated in the Schedule of Quantities & Rates. References are to be made with the other documents for the full information details.

- 7.7 The tenderer shall be deemed to have visited the site before submitting the tender and to have examined for self the conditions under which the work will be carried out Risks and contingencies, means of access to site. Sub- soil conditions including local conditions effecting labour and material procurement and to have studied the items of the SOQR, the specifications and drawings and to have satisfied himself that the rates quoted by him / them provide for all minor accessories and contingent works or services necessary for the works described even though they are not specifically defined there in.
- 7.8 Unless otherwise specified in the description of items of work in Schedule of Quantities & Rates, the rates quoted by the tenderer shall be for all heights and depths.
- 7.9 The specifications for the entire work shall be in accordance with Technical Specifications / I.S. Codes.
- 7.10 IS Codes / specifications referred shall mean latest IS code / specification amended up to date.
- 7.11 All materials / fittings shall be of approved quality / make / brand. All samples shall be arranged for approval.
- 7.12 The rates for the earth work in excavation in the SOQR is to be given including bailing out ground water, seepage water from open drains etc., and rain water if any encountered during excavation. During excavation proper supports, props, shoring etc., are to be provided to avoid falling of slopes, to avoid damages for the existing drainage line, electrical cables and existing foundations etc., at no extra cost.
- 7.13 The rates quoted shall be deemed to be inclusive of cost of all materials, consumables (except as indicated in SOQR and labour as may be required for the construction on full scope of the work described, together with all general risks involved, liabilities and obligations set forth or implied in the documents on which the tender is based.
- 7.14 Unless otherwise provided in the schedule of quantities and the rates for all concrete construction work shall **include for providing necessary cut outs etc., for various electrical and other equipment and nothing extra shall be paid for the same.** The position of various inserts and cutouts etc. shall be indicated in the detailed drawings or as per the instructions of the Engineer-in-charge.
- 7.15 Rates for plastering works shall include for making grooves, drip courses, moldings and bands etc., wherever required and nothing extra shall be paid for the same.
- 7.16 The rates quoted shall remain firm and valid for the quantum of work and till completion of work.
- 7.17 The quantities mentioned in Schedule of Quantities & Rates are approximate and may increase or decrease during the execution. **Payment will be made for the actual quantities duly certified by BHEL site In-Charge at the agreed scheduled rates.** There will be no change in the scheduled rates even if the actual quantities found to be either less or in excess of schedule quantity in respect of any one or all items.
- 7.18 No price variation shall be allowed in respect of items having a "Lump sum Price" even if there is any variation in the actual quantum of work for such items.

**8.0 Measurement of Work**

- 8.1 Mode of measurement will be as per IS: 1200 for Civil works and IS : 800 for the structural work. Mode of measurement for the earthwork will be as per relevant IS Codes.

- 8.2 For all payment purposes measurements will be based on the execution of drawings. Wherever details are not available or inadequate in the execution drawings, physical measurements will be taken by the contractor in the presence of the representative of Engineer-In-Charge. In such cases payment will be made on actual measurements. Measurements will be made in units as indicated in schedule of rates.
- 8.3 Measurement of weights will be Metric Ton corrected to the nearest kilograms.
- 8.4 Linear measurements will be in metre corrected to the nearest millimeters.
- 8.5 Measurement of supply items shall be made as per units and quantities indicated item wise in schedule of quantities & rates.
- 8.6 All temporary lines and equipment required for flushing, testing, draining shall be provided, installed and dismantled by contractor within the quoted rates.
- 8.7 Open ends of pipes shall be blanked for hydrostatic test and these blanks shall be removed and edge preparation shall be provided, installed and dismantled by contractor within the quoted rates.
- 8.8 Open ends of pipes shall be blanked for hydrostatic test and these blanks shall be removed and edge preparation shall be done after testing is completed by the contractor within his quoted rates.
- 8.9 The rates quoted for items such as fixing of inserts, foundation bolts etc. shall include the supporting structure, template etc. as required as site including welding and no extra will be paid for these. The payment will be made for the weight of insert, foundation bolt, nut and washers only. Any reinforcement used for positioning the bolt during the concreting will be taken in to account for reconciliation purposes only.

\* \* \* \* \*

**SCOPE OF SUPPLIES, FACILITIES AND RESPONSIBILITIES**

**1.0 Construction Water**

- 1.1 Water will be provided by BHEL- HPVP free of cost at one single point and the contractor has to make his own arrangements for further distribution at his own cost. Also, if additional quantity is required, contractor to arrange the same at his own cost. Rate quoted for the respective items shall be inclusive of the same.

**2.0 Construction Power**

- 2.1 BHEL-HPVP will not provide power and the contractor has to make his own arrangements at his own cost. Power is to be arranged from APSEB from the substation near to the site. Rates quoted for the respective items shall be inclusive of the same. If power is not available, contractor has to make his own arrangements for operation of contractor's equipments i.e. for operation of vibrators, mixer machine, pumps and welding machine etc.,

**3.0 Materials to be supplied by BHEL- HPVP**

- 3.1 No materials shall be supplied by BHEL-HPVP as free issue.
- 3.2 The contractor has to procure all materials including Cement, Reinforcement steel, Structural steel, Electrical materials etc, required for completion of execution of the total work.

**4.0 Cement, Reinforcement Steel & Structural Steel**

- 4.1 **BHEL-HPVP will not supply any Cement and Reinforcement Steel.** Supply of Cement and Reinforcement Steel is in the scope of contractor only. However the brands proposed to be used shall have to be approved in advance by the Engineer - in - Charge.

The grade of cement should be OPC-53 grade as per relevant IS code. Tor Steel shall be Fe 500D Grade as per IS: 1786. All the Manufacturers test certificates / batch test certificates pertaining to Cement and Reinforcement Steel are to be submitted to the site-in-charge, BHEL along with the information of receipt of materials and before putting the same into usage.

- 4.2 Contractor shall construct a suitable size godown at his own cost for proper storage of the cement and steel at site.

**4.3 Consumption of Cement**

C.P.W.D consumption standards will be taken for reference for consumption of cement wherever it is not clearly mentioned and design mix is not used.

**4.4 Structural Steel :**

All structural steel plates, sections like angles, beams, channels etc., are to be supplied by the Contractor and the rates quoted shall be inclusive of the prices for supply of the respective items.

**5.0 Concrete Mix**

Total RCC shall be with **Design mix concrete only and may be ready mix or by weigh batching**. The contractor shall establish the design mix for all grades of RCC works with necessary testing to establish specified strength at approved laboratories and submit for the approval BHEL - HPVP / CONSULTANT well in advance of commencement of works. The contractor will have to submit their design mix for different grades of concrete keeping in view the requirements stipulated in IS: 456 specifically regarding slump and water-cement ratio and specific

gravity of materials brought to site as analyzed in the laboratories. The design shall be based upon absolute volume method and theoretical consumption of cement shall be worked out on this basis. For any excess or under consumption based on these coefficients, the contractor shall be suitably penalized.

For other concrete works, concrete shall be either ready mix concrete or weigh batching the ingredients after obtaining prior approval from BHEL-HPVP / Consultant.

In case of weigh batch mix, the mixtures and the weigh batchers shall be maintained in clean, serviceable condition. The accuracy of the weigh batchers shall be periodically checked by approved agencies and the calibration certificates are to be produced. They shall be set up on firm ground and hoppers shall be loaded evenly. The needle shall be adjusted to zero when the hopper is empty. Fine and coarse aggregate shall be weighed separately.

For other than concrete items, the coefficient for consumption of cement shall be adopted as per CPWD Practice. The theoretical consumption of cement thus worked out shall be binding upon the contractor for reconciliation of cement by BHEL-HPVP.

#### **6.0 ELECTRICAL WORKS**

All the materials for the Electrical works like MCB's, Main Switches, Cables, Distribution Panel boards, Switch Boards, Plug Sockets, Earthing material, etc are to be supplied by the Contractor and the rates quoted shall be inclusive of the prices for supply of the respective items.

#### **7.0 Contractor's Scope of Supply of Materials**

Contractor's scope of supply includes all materials (unless specified as BHEL-HPVP's scope of supply) for the entire completion of all Civil works and Electrical Works.

#### **8.0 Responsibility of Contractor**

- 8.1 No land will be available for labour hutments but for temporary site office, stores to the extent area available can be provided. The contractor has to construct his site office, stores etc. and no material will be given for the same. Site office, storage area and fabrication yard allotted to the contractor shall be barricaded and should keep his security personnel for the safety of the materials etc. The contractor should construct cement godown at his own cost to accommodate at least three months peak consumption capacity adopting standard specifications. The contractor shall establish a laboratory at site as required for testing of civil engineering works / materials.

On completion of the job, this shall be dismantled, cleared of debris and handed over. Owner / BHEL - HPVP can advise the contractor to vacate the premises in 7 days time on security reasons, national interest or otherwise.

- 8.2 All expenses towards mobilization at site and de-mobilization including bringing in equipments clearing the site etc. shall be deemed to be included in the prices quoted and no separate payments on account of such expenses shall be entertained.

- 8.3 It shall be entirely the contractor responsibility to provide, operate and maintenance all necessary construction equipments, scaffolding and safety gadgets. All tackles, tools and appliances to perform the work in a workman like and efficient manner to be arranged by the contractor and complete all the jobs as per time schedules.

Preparing approaches and working area for the movement and operation of the cranes, leveling the areas for assembly and erection shall be the responsibility of the contractor. The contractor shall acquaint himself with access availability, facilities such as railway siding, local labour etc. to provide suitable allowances in his quotations. The contractor may have to build temporary access roads to aid to his own work will be inclusive of supply of all these items.

8.4 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.

**9.0 Construction Equipment and Site Organization**

**9.1 Construction Equipment**

a) The contractor shall without prejudice to his overall responsibility to execute and complete the work as per specifications and time schedule progressively deploy adequate equipments and tools and tackles and augment the same as decided by the Engineer-In-Charge depending on the exigencies of the work so as to suit the construction schedule.

**The tenderer shall submit a list of construction equipments he proposes to deploy for the subject work along with deployment schedule. No Construction Equipment shall be supplied by the owner.**

b) The contractor must have adequate no. of the following equipments along with skilled operators for the same as per the exigencies for execution of works.

- Weigh batches, Concrete mixtures, vibrators (Pin and screwed), Vibro Rammer, Road roller etc.
- Dewatering pumps
- Motors and Winches of suitable capacity. Power distribution boards / cables. DG power sets.
- Material handling equipment, Tractors, Trailers
- Working platforms along with ladders, inspection cage, wire ropes of required capacity, d-shackles etc.
- Welding rectifier / Transformer with welding cables, Drilling machine as per requirement
- Laboratory equipments.

9.2 In case contractor does not own the above equipment they should satisfy BHEL-HPVP with necessary documentary evidence of their arrangements made to hire / acquire the same along with the skilled operators. Decision of Engineer-in-Charge regarding deployment of equipment in sufficient nos. shall be final.

9.3 Subject to the provisions in the tender documents and without prejudices to contractor's liabilities and responsibilities to provide adequate qualified and skilled personnel on the work. The tenderer shall submit the details of minimum site organization proposed by him. Site In-Charge with legal power of attorney should be posted.

**10.0 Sub-Contractors**

The contractor shall not sub-let any portion of the contract without the prior written approval of the accepting authority (Owner / BHEL-HPVP)

**11.0 Co-ordination with Other Agencies**

Work shall be carried out in such a manner that the work of other agencies operating at the site is not hampered due to any action of the contractor. In case of any dispute, the decision of Engineer-In-Charge shall be final and binding on the contractor.

**DRAWINGS, SPECIFICATIONS AND INSPECTION OF WORKS**

**1.0 Drawings and Documents**

The drawings accompanying the Tender document are indicative of nature of work and issued for tendering purpose only. Purpose of these drawings is to enable the tenderer to make an offer in line with the requirements of the BHEL- HPVP. However no extra claim what so ever shall be entertained for any variation in the actual work with reference to the "Tender Drawings".

- 1.1 Detailed construction drawings will be issued progressively after award of contract. Depending on the priorities, works are to be planned accordingly. If any revisions called for during execution, minor changes may be required and are to be carried out without any extra cost.

**2.0 Specifications**

The standard specifications for various works are to be followed as per relevant I.S codes and standard practices and other enclosed contract documents & scope of work of contractor. It is clearly understood that the scope of work as indicated in contract document is indicative and the contractor shall be responsible for completion work in all respects without any limitations.

**3.0 Tests and Inspection**

- 3.1 M/s BHEL / their duly authorized representative / APSHCL 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 the construction and testing.
- 3.2 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 work until the inspecting Engineer has certified in writing that such materials have been inspected and approved by him.
- 3.3 The contractor shall provide at his own cost all facilities for the required tests as required by the Engineer-in-charge. Defective work shall be made good / replaced by the Contractor at his own cost to the full satisfaction of BHEL / APSHCL.
- 3.4 The contractor shall carry out the various tests as enumerated in the technical specifications of these tender documents and the technical documents that will be furnished to him during the performance of the work and no separate payment shall be made unless otherwise specified in the schedule of rates.
- 3.5 All the tests either on the field or at outside laboratories concerning the execution of the work and supply of materials by the contractor shall be carried out by contractor at his own cost as per relevant standards and as per contractual obligations and the results shall be submitted. Materials and concrete cubes will also be tested by the Consultant / Owner in their site laboratory, if required and their results are final and binding on the contractor. Manufacturer test certificates shall be submitted as desired by BHEL-HPVP / CONSULTANT.
- 3.6 The work is subject to inspection of all times by Engineer-In-Charge / Owner / Consultant. The contractor shall carry out all instructions given during inspection and shall ensure that the work is being carried out according to the technical specification of this tender. The technical documents and relevant codes of practice furnished to him during the performance of the works.
- 3.7 The work not confirming to the execution drawings, specifications or codes shall be rejected forthwith and the contractor shall carry out the rectification at his own cost.

- 3.8 All results of inspection and tests will be recorded in the inspection reports, proforma of which will be approved by the Engineer-In-Charge. The reports shall form part of the completion documents.
- 3.9 Inspection of works at all stages shall be done by BHEL-HPVP / CONSULTANT/ OWNER.
- 3.10 Inspection and acceptance of the work shall not relieve the contractor from any of his responsibilities under this contract.
- 3.11 All guarantee certificates for specialized jobs like anti treatment, water proofing etc. should be obtained from the expert agencies engaged by the contractor and these should be submitted on the closure of contract in the name of BHEL-HPVP in the prescribed form.
- 3.12 All buildings foundations shall be marked for levels, centerline of foundations, pockets etc.

**4.0 Final Inspection**

After completion of all tests as per specifications, the whole work will be subject to a final inspection to ensure that job has been completed as per requirement. Defects, if any, noticed in the work which are attributable to the contractor, shall be attended by the contractor at his own cost as and when they are brought to his notice by BHEL-HPVP / CONSULTANT / OWNER during the DEFECTS LIABILITY PERIOD i.e. for a period of One year from the Final acceptance of job in all respects.

The BHEL / OWNER shall have the right to have these defects rectified at the risk and cost of the contractor, if he fails to attend to these defects immediately.

\* \* \* \* \*

**TIME SCHEDULE**

**1.0 Time of Completion**

- 1.1 The work shall be executed strictly as per time schedule given at Annexure – V in the tender document. The period of completion given includes the time required for testing / rectifications, if any retesting and completion in all respects to the entire satisfaction of Engineer-In-Charge.
- 1.2 All the bidders shall have to submit Tentative Bar Chart for the total work in line with the delivery period given in the tender.
- 1.3 The successful tenderer shall submit a detailed bar chart indicating various activities within ten days from date of LOI for the approval of Engineer – in –charge.

**2.0 Construction Progress Reports**

- 2.1 Contractor shall make every effort to keep BHEL adequately informed as to the progress of the work throughout the contract period. Contractor shall keep BHEL - HPVP informed well in advance of the construction schedule so as to permit BHEL-HPVP to arrange for requisite inspection to be carried out in such a manner as to minimize the interference with the progress of the work. It is imperative that close co-ordination be maintained with BHEL- HPVP / CONSULTANT during all phases of the work.
- 2.2 By second day of each month contractor shall furnish BHEL-HPVP a detailed report covering the progress as of the last day of the previous month. These reports shall indicate actual and the scheduled percentage of completion as well as general comments of interest on the progress of various phases of the work.
- 2.3 Once a week Contractor shall submit a summary of the work accomplished during the preceding week in the form of percentage completion of the various phases of the work to BHEL-HPVP.
- 2.4 Progress reports shall be submitted by contractor with documents such as charts, networks, photographs, test certificated etc., such progress reports shall be in the form and size as may be required by BHEL-HPVP and shall be submitted in at least three copies.
- 2.5 Monthly / weekly construction programme will be drawn up by Engineer-In-Charge BHEL-HPVP jointly with the contractor based on availability of work fronts. The contractor shall scrupulously adhere to these targets programmed by deploying adequate personnel and construction tools and tackles and he shall also supply all materials in his scope of supply in time to achieve the targets set out in the weekly and monthly programmes. In all matters concerning the extent of targets set out in the weekly and monthly programme targets and the degree of achievements, the decision of the Engineer-In-Charge shall be final and binding on the contractor.
- 2.6 Contractor shall give every day report on category wise labour and equipment deployed along with the progress of the work done on previous day in the Performa prescribed by the Engineer-In-Charge.
- 2.7 All works shall be completed within time schedule from the day of issuing the letter indent. Fronts shall be given for working to other agencies and finishing shall be done close co-ordination with the agencies working at site.
- 2.8 If there is a delay in completion due to departmental delays suitable extension as per conditions of the contract will be given but no claims will be entertained for the over-stay and idle manpower.
- 2.9 If there is a delay in completion due to contractor delay LD (liquidated damages) is to be levied as per the terms of the contract.

**PRICE, PAYMENT TERMS AND OTHER COMMERCIAL CONDITIONS**

**1.0 Schedule of Quantities & Rates**

- 1.1 The schedule of quantities & rates shall be read in conjunction with the Special conditions of contract, General Conditions of Contract, Technical Specifications, Drawings and other documents forming part of this contract.
- 1.2 All items of work in the schedule of quantities & rates shall be carried out as per the specifications, drawings and instructions of the Engineer-In-Charge and the rates are inclusive of supply of all materials and consumables, labour, supervision, intermediate / auxiliary / ancillary or enabling works.
- 1.3 Schedule of quantities & rates submitted by the tenderer shall be the same copy of the schedule of quantities & rates enclosed with the tender document.

**2.0 Works Contract**

The entire work as per scope of work covered under this contract shall be treated as "Works Contract". The contractor should submit TIN number. The present WCT is 5% if TIN number is furnished / submitted. If TIN number is not available, W.C.T shall be 20 %.

- 2.1 The prices shall be inclusive of all taxes and duties whatsoever applicable except Service Tax.
- 2.2 Wherever the WCT is applicable, the same will be deducted at source from the contractor's bills and paid to the authorities. The proof of such payment of taxes on works contract will be furnished.

**3.0 Taxes, Octroi, Royalty and Cess**

The price quoted shall be inclusive of WCT & all other taxes except Service Tax, prevailing as on the date of submission of tenders. Any statutory variation (plus or minus) in the rates of taxes, if any applicable, after the closing date of Tender / Revised Bid as the case may be but within the contract delivery completion period will be refunded / reimbursed, on submission of documentary evidence of payment made by the contractor.

**4.0 Security Deposit**

- 4.1 Security Deposit shall be collected from the successful tenderer. The rate of security deposit will be as follows.
- a) Up to Rs.10 lakhs : 10%.
  - b) Above Rs. 10 lakhs up to Rs.50 lakhs : Rs.1 Lakh+7.5% of the amount exceeding Rs.10 Lakhs.
  - c) Above Rs. 50 lakhs : Rs 4 lakhs + 5% of the amount exceeding Rs.50 lakhs.
- 4.2 Security Deposit should be deposited before start of the work by the contractor and may be furnished in any one of the following forms :
- i) Pay Order, Demand Draft in favour of BHEL.
  - ii) Local cheques of scheduled banks, subject to realization.
  - iii) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc., (Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).

- iv) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- v) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- vi) Security deposit can also be deposited at the rate of 10% from the running bills. However in such cases, at least 50% of the Security Deposit should be deposited before start of the work and the balance 50% may be deposited from the running bills.
- vii) EMD of the successful tenderer can be converted and adjusted against the security deposit.
- viii) The security deposit shall not carry any interest.

**Note :** Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, 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.

4.3 The Security Deposit will be released to the contractor on completion and acceptance of all works by BHEL-HPVP/ APSHCL and on submission of Bank Guarantee for an equal amount covering the defects liability period.

**5.0 Mobilization Advance**

No mobilization advance shall be given against this work.

**6.0 Secured Advance on Materials**

No advance shall be paid towards supply of materials.

**7.0 Liquidated Damages**

If the contractor fails to maintain required progress of work as per the agreed schedule resulting in delay in completing the work including the site clearance, BHEL-HPVP is entitled without prejudice to its any other right or remedy to levy Liquidated Damages @ ½ % of the Contract value per week of delay or part thereof subject to a **maximum of 5% of the total contract value**. It is well understood and agreed that, such amounts do represent the reasonable loss suffered by BHEL-HPVP because of delay and It shall not be necessary to establish the actual amount of losses suffered.

**8.0 Defects Liability Period**

The Defects Liability period for this contract is **12 months** from the date of completion of total work and acceptance thereof. The contractor shall be responsible to make good and remedy at his own expenses and defects brought to his notice, which have been developed and notice during the defects liability period.

**9.0 Escalation**

The prices shall remain fixed and firm for an entire period of contract & No escalation shall be paid on any account including material, labour, P.O.L

**10.0 Income Tax**

Income Tax deductions shall be made from all payments made to the contractor as per the rules and regulations in accordance with the income tax act prevailing from time to time.

**11.0 Payment Terms:**

**11.1** 90% Progressive Payment based on work done against monthly RA bills. R.A Bill payment will be arranged after 30 days from the date of submission of bill.

**11.2** Balance 10% against Final bill on completion and acceptance of total work and submission of all relevant documents as per contract. This amount may be released against submission of Bank Guarantee for an equivalent amount valid for Defect liability period plus claim period of 3 months. If BG is not submitted, this amount will be released after expiry of Defect liability period.

**11.3 Mode of Payment :**

Payment will be released only through RTGS / NEFT and all documents required for the same as specified are to be submitted by contractor along with their bills.

**12.0 Final Bill**

The final bill payment shall be made only after obtaining the following certificates :

- a. WORK COMPLETION CERTIFICATE issued by Engineer-in-charge, BHEL-HPVP
- b. NO DUE CERTIFICATE” from Engineer- in – charge, BHEL-HPVP.
- c. NO CLAIM CERTIFICATE from the Contractor.
- d. Certificate from Engineer-in-Charge, BHEL-HPVP for return of all balance free issue materials issued to the contractor, if any and rendering the material account and also certificate that the temporary site office, stores, debris cleaning etc. are duly removed and site handed over in clean condition.
- e. One set of working drawings incorporating all alterations / additions during execution.
- f. Manufacture’s test certificates, guarantees and test / inspection certificates.
- g. Certificate of Undertaking from the contractor in compliance of statutory obligations pertaining to labour / workmen

**13.0 Contract Agreement**

**13.1** Contract document for agreement shall be prepared after award or work and issue of LOI. Until the final contract documents are prepared and executed, the LOI along with the tender documents together with the annexed documents, modifications, deletions agreed upon by BHEL- HPVP and the tenderer’s acceptance thereof shall constitute a binding contract between the successful the BHEL-HPVP based on terms contained in the above said documents and finally submitted and accepted price schedule.

The contract documents shall consist of the following :

- a) Letter of Intent along with its enclosures.
- b) Original Tender documents with its enclosures and addendum issued, if any.
- c) Agreement on Rs.100/- non-judicial stamp paper.

**14.0 Termination of Contract**

In the event of any failure on the part of the contractor BHEL-HPVP reserves the right to terminate the contract by giving a notice of two weeks for any of the following lapses and contractual violations.

- 1) Failure to make labour payment in time as per the rules.
- 2) Failure to progress the job according to the agreed schedule.
- 3) Failure to mobilize adequate manpower, tools and tackles and consumable in time.
- 4) Failure to adhere to quality standards of BHEL-HPVP.
- 5) Refuse to co-operate with other agencies working in the same area.
- 6) Failure to resolve labour disputes like strikes etc. within seven days of occurrence.
- 7) Failure to comply with statutory regulations applicable at site.

BHEL-HPVP shall also be free to intervene and take necessary remedial measures. All costs incurred with interest and overheads shall be debited to contractor's account, by such foreclosing or off-loading any part of the contract work.

**15.0 Risk Purchase**

In the event of failure on the part of the contractor to meet the work completion schedule as per the terms and conditions of the contract or in the event of the contractor abandoning the site clearing the works incomplete or fails to procure necessary items facilities, BHEL-HPVP is free to do / procure the same either of its own or through any other agency at the entire risk and cost of the contractor. The decision of Engineer –in- charge / Site-in-Charge of BHEL-HPVP in this context is final and binding on the contractor. Such costs shall be debited to the contractor's account.

**16.0 Arbitration**

In the event of any dispute arising out of this contract, the same shall be referred to the sole arbitration of any person, who shall be appointed by the Executive Director of BHEL-HPVP at his sole discretion. There will be no objection if the arbitrator so appointed is any employee of BHEL-HPVP Visakhapatnam, its branches / offices. It is also a term of this contract that no person other than a person appointed by Executive Director, BHEL-HPVP, as aforesaid shall be the arbitrator unless and until a written request is received by the Executive Director of BHEL-HPVP from either of the parties to the contract. The venue of arbitration shall be Visakhapatnam. The award of such arbitrator shall be final and binding on the both the parties.

**17.0 Law governing Contract and Court Jurisdiction**

The contract shall be governed by the law for the time being in force in the Republic of India. The Civil court having original Civil Jurisdiction at Visakhapatnam for BHEL-HPVP shall alone have exclusive jurisdiction in regard to all claims in respect of the contract. No other Civil court shall have jurisdiction in case of any dispute under this contract.

**STATUTORY AND OTHER OBLIGATIONS**

**1.0 Statutory Requirements**

- 1.1 Contractor shall be responsible for obtaining statutory approvals / clearances from authorities like municipal corporations, development authorities, electricity department and other concerned authority as required for the completion of work.
- 1.2 The contractor should obtain the labour license in the name of contractor at his own cost for the purpose of executing this contract and is totally responsible to maintain all required statutory registers. BHEL-HPVP will only sign the documents as per the requirement.
- 1.3 The contractor will have to submit monthly wage sheets and proof of statutory payments such as ESI, EPF etc. along with RA bills without which payment will not be released .The contractor shall also submit an undertaking for compliance of all statutory labour obligations before submission of final bill for the job.

The application on behalf of the BHEL-HPVP for submission for any statutory inspection along with copies of required certificates complete in all respects shall be done by the contractor and submitted to the BHEL-HPVP personnel department/ Engineer-In-Charge for onward transmission. The actual completion of work of statutory inspection shall be arranged by the contractor and necessary co-ordination and liaison work in this respect shall be arranged by him.

- 1.4 Contractor has to maintain all labour records, submit returns / records and satisfy BHEL-HPVP and labour enforcing authorities for smooth working.

**2.0 Safety and Security Regulations**

The contractor shall abide by the safety and security regulations and provide safety equipment for all the labour engaged directly or indirectly as enforced by BHEL-HPVP from time to time and should post a safety engineer at site for the entire contract period.

**3.0 Contractor's Liability and Insurance**

Contractor has to ensure insurance for all his labour, tools, and tackles, free issue materials etc. at his own cost from commencement to completion of the works. The contractor shall take full responsibility for the case thereof and for taking precautions to prevent loss or damages and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the works or part thereof and all companies T&P from an cause whatsoever and shall at his own cost repair and make good the same work so that the time of the completion of the works and all T&P shall be in good order and condition and in conformity in every respect with the requirements of the contract.

Before commencing execution of the work, the contractor shall with out in any way limiting his obligations and responsibilities under this condition ensure against any damages, loss or injury which may occur to any property or any person by or arising out of carrying of the contract.

The aforesaid insurance policies shall not be cancelled till the Engineer-In-Charge as agreed to their cancellation.

In the event of any dispute or differences between the sub-contractor / contractor and the BHEL-HPVP as regards the payments, claims or other matters arising out of a contract, the sub-contractor / contractor hereby undertakes and agrees that such disputes, claims etc. shall be resolved as per the provisions and machinery under the contract only and the same shall not be related or linked up with any other contracts whatsoever and that the work in respect of other contracts shall not be stopped hindered or dislocated.

**4.0** The following documents shall be submitted by the contractor

- a) Materials test certificates
- b) Batch test certificates from manufactures for electrodes
- c) Tolerances obtained for RCC structures
- d) Any other certificate reports, guarantees etc as required for the works

**5.0 Site Cleaning**

5.1 The contractor shall take care for cleaning the working site from time to time for easy access to work site and also from safety point of view.

Working site should be always kept cleaned upto the entire satisfaction of the Engineer-In-Charge before handing over any work to BHEL-HPVP, to contractor in additional to any other formalities to be observed as detailed in the document shall clear the site to entire satisfaction of Engineer-In-Charge.

**6.0 Order of Works / Permission / Right of Entry / Care of Existing Services**

- a) Drains, Pipes, cables, over head wires and similar services encountered in the course of the works shall be guarded from damages done by the contractor at his own cost so that they may continue in full and uninterrupted used to the satisfaction of the owner there of.
- b) Should any damages be done by the contractor to any pipes, cables or lines (whether above or below ground) whether are not shown on the drawings. The contractor must make good or bear the cost of making good the same without delay to the satisfaction of the engineer.

**7.0 Secrecy of Agreement**

The documents, specifications, drawings etc. furnished are specifically meant for execution of the work and same shall not be used for any other purposes of divulge to any other agency contractor will be solely responsible for the custody of the above documents etc. and criminal proceedings will be instituted for violation if any under official secret act.

**8.0 Laws Governing the Contract**

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

**9.0 Disputes and Legal Jurisdiction**

Notwithstanding anything contained in any document what so ever all cases, suits, petitions actions etc. including that may arise out of bank guarantees, arbitration etc under this contract shall be filed, instituted, tried and auctioned only in the courts and tribunals and forums etc. situated at Visakhapatnam and nowhere else, even though such jurisdiction may also vest with other courts, tribunals and forums situated in other places in the country.

**SCOPE OF WORK (CIVIL)**

**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

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The Construction of 96 residential flats is to be carried out in G+3 pattern including electrical works in Aganampudi Village, Gajuwaka Mandal, Visakhapatnam under CSR for HUD HUD Cyclone affected people. The detailed scope of work of the contractor is as follows :

- i. Total 96 flats are to be constructed in 3 blocks. Each block will be a 4 storeyed building with 32 flats in G+3 pattern.
- ii. The work is to be executed as per the following drawings, which are indicative of tentative scope of work :
  - a) Drg. No. NTR House GEN 01 : General Floor Plans, Ground + 3 Floors
  - b) Drg. No. NTR House STR 01 : Footings, Columns & Plinth Beams Layout including Foundation Details
  - c) Drg. No. NTR House STR 02 : Columns & Plinth Beams Reinforcement Details
  - d) Drg. No. NTR House STR 03 : Typical Floor Beams & Slab Reinforcement Details
  - e) Drg. No. NTR House STR 04 : Typical Floor Beams & Staircase Reinforcement Details
- iii. The above drawings are tentative and are subject to revision at the time of execution.
- iv. Before taking up the layout of the buildings, NGLs of the proposed site are to be taken in association with the Engineer of BHEL-HPVP and average of these NGLs shall be considered for the purpose of payment of all items relevant to NGL.
- v. All the works are to be carried out as per the specifications and detailed scope mentioned in the drawings and SOQR.

All Civil works like foundations for columns, plinth beams, pedestals, brick work in plinth level, brick work above plinth level upto and above V Floor roof level, Columns from sub structure to Head room above Roof of IV floor level, Roof beams, Roof Slabs in all floor levels upto Head room above IV floor, Plastering of brick work & RCC from plinth level to Head room level above IV floor and all the finishing works as detailed in the drawings and SOQR etc. have to be carried out.

Laying of water supply lines, sanitary / sewage pipe lines, construction of gully chambers, connection to the existing drains and man holes etc.

- vi. Retaining Wall is to be constructed in between the blocks as per the drawing / sketch provided by BHEL - HPVP / APSHCL.
- vii. Supply of Cement of OPC – Gr.53 of approved brand as per requirement.
- viii. Supply of Tor Steel – Fe 500D as per IS: 1786 of approved brand as per requirement.
- ix. Supply & installation of Sintex make PVC Water Tanks of 2000 litre capacity @ 4 nos. per block
- x. All other materials like Ceramic Tiles, PVC pipes, GI pipes and fittings, Flush Door shutters , Sanitary fittings etc. shall be of approved brand and acceptable to BHEL / APSHCL.
- xi. Materials used for Steel Door / Window Frames, MS grills shall be of approved quality and fabrication shall be as per standards / specifications mentioned in the drawings & SOQR.
- xii. Wherever details are not available, the specifications and scope of work indicated the SOQR shall be followed. The contractor shall follow the best modern practice in the construction not withstanding any omission in the specifications.

Ref : OS/HR/CSR/2015-16/07/008

Date : 03.06.2015

**SCOPE OF WORK (ELECTRICAL)**

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**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

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The scope of work covers electrical works for 96 flats constructed in 3 Blocks in G+3 pattern and it includes the following :

1. Supply of all materials required for execution of the items as per SOQR (Electrical), laying of cables and termination, installation of panel boards, internal house wiring, fixing of switches / plug points, earthing etc. as per the instructions of the Engineer-in- charge.
2. All electrical materials (bought out items) shall be of reputed make and ISI marked.
3. Welding machines, gas cutting sets, regulator and all consumables.
4. All consumables required for welding, painting and erection etc.
5. Contractor shall bring all tools and tackles for carrying out the subject work.
6. Qualified supervisors and technicians experienced in House Wiring (Residential buildings) shall be deployed for execution of works.
7. Carrying out excavation, backfilling, cutting, grinding, bolting, welding works required for laying of earth strips.
8. Any clarifications or modification of the work shall be directly discussed with the Engineer-in-charge.
9. Co-ordination with APEPDCL and APShCL for connection with the existing transformers for incoming power.

**ANNEXURE – V**

**Ref : OS/HR/CSR/2015-16/07/008**

**Date : 03.06.2015**

**TIME SCHEDULE**

**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

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**TIME SCHEDULE :**

Time is the essence of the contract. Being a time bound CSR scheme, the contractor should make all efforts to complete the work in **18 (Eighteen) Months** from the Date of Issue of LOI.

All the bidders shall have to submit Tentative Bar Chart for the total work in line with the delivery period given in the tender.

The successful tenderer shall submit a detailed bar chart indicating various activities within ten days from date of LOI for the approval of Engineer – in –charge.

**SIGNATURE OF THE TENDERER**

**SPECIAL INSTRUCTIONS TO CONTRACTOR**

**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical Works in Aganampudi Village, Visakhapatnam under CSR**

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1. Contractor to note that the work is to be executed in Aganampudi Village, Gajuwaka Mandal, Visakhapatnam.
2. It is preferred that the contractor visit the site to know the site conditions, approaches, for assessing transport requirements, local social environment etc and for having any clarifications. By quoting, the tenderer is deemed to have visited the site and got acquainted of all the technical as well as site requirements such as safety requirements, labour laws at the place of work before quoting for the subject work.
3. Water shall be given at one single point and the vendor is to carry out the distributions / extensions as required for his work. Also, if any additional quantity of water is required, contractor has to arrange the same at his own cost.
4. Contractor has to make his own arrangements for Power at his own cost. Power is to be arranged from APSEB substation near to the site. Further distribution like cable laying, electrical panel boards, main switches, distribution boards, ELCB etc., to be arranged by Contractor. Rates quoted for the respective items shall be inclusive of this.
5. All safety precautions shall be taken by the contractor as per the prevailing norms as stipulated :  
  
Safety shoes, safety belts, life lines, required safety nets etc. required for the safety of the workers to be arranged by the contractor.  
  
All safety rules to be followed for working at heights.  
  
Contractor has to provide safety net below the roof structure where the workers are working, as a safety measure to protect workers, in case of falling from roof.  
  
Contractor has to deploy a safety supervisor for overseeing the safety of his workers at site.
6. All tools, tackles, machinery etc., required for the completion of the work is to be arranged by the contractor.
7. Contractor has to arrange mobile working platform as required for lifting & shifting of men & materials to roof tops.
8. List of Plant & Machinery and Man Power available with the contractor shall be submitted with the tender.

\* \* \* \* \*

**NORMS FOR QUALIFICATION**

**Sub : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

**I ELIGIBILITY :**

1. Separate Registration for EPF, ESI, PAN, Sales tax & Service tax, Proof of IT returns submitted for the last three years (FY 2011-12 to 2013-14), Profit & Loss account and balance sheet certified by the auditor.
2. Average annual turnover in the last 3 financial years shall be at least for a value of minimum of Rs.143 Lakhs.
3. During the last seven years should have successfully completed works either.
  - a) Three similar works each not less than Rs.190 Lakhs (or)
  - b) Two similar works each not less than Rs.238 Lakhs (or)
  - c) One similar works each not less than Rs.381 Lakhs
4. Solvency certificate shall be minimum Rs.190 Lakhs  
(The Certificate should have been issued within 6 months from the date of tender opening)

Sl. No.	Thrust Area	Score	Qualification Norms
<b>II</b>	<b>NATURE OF COMPANY</b>	<b>5</b>	
	Public Limited	5	
	Private Limited / Partnership firm	3	
	Sole Proprietor	2	
<b>III</b>	<b>Similar Experience in Construction of Residential Buildings / Apartments.</b>	<b>40</b>	
	Total value of similar works executed in the last 3 financial years (Pro-rata basis for in between cases)	40	Rs.856 Lakhs
	More than	24	Rs.428 Lakhs
<b>IV</b>	<b>Performance on previous works</b>	<b>20</b>	
	Successful completion of three major works in time (Each not less than Rs. 177.0 Lakhs)	20	
	Successful completion of two major works in time (Each not less than Rs. 222.0 Lakhs)	16	
	Successful completion of one major works in time(Each not less than Rs. 354.0 Lakhs)	12	
<b>V</b>	<b>Highest value of single work completed</b>	<b>10</b>	
	(Pro-rata for in between cases)	10	Rs. 381 Lakhs
	More than	6	Rs. 190 Lakhs

<b>Sl. No.</b>	<b>Thrust Area</b>	<b>Score</b>	<b>Qualification Norms</b>
<b>VI</b>	<b>Equipments / Tools &amp; Plants owned</b>	<b>10</b>	
	Excavator (JCB), Mixer Machines, Vibrators etc. (Own)	10	
	Excavator (JCB), Mixer Machines, Vibrators etc. (Hired)	6	
<b>VII</b>	<b>Qualified staff availability</b>	<b>5</b>	
	Site In-charge, 1 Site Engineer, 3 Supervisors	5	
<b>VIII</b>	<b>Financial Stability (Solvency)</b>	<b>10</b>	
	(Pro-rata for in between cases)	10	Rs. 381 Lakhs
	More than	6	Rs. 190 Lakhs
	<b>Total</b>	<b>100</b>	

**Note : Minimum score required for qualification is 60 out of 100.**

**GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)**

BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid “ by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.”

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.

10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL"s standard practice.
12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction“, which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

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**ANNEXURE - IX**

**Ref : OS/HR/CSR/2015-16/07/008**

**Date : 03.06.2015**

**ACCEPTANCE TO TENDER TERMS & CONDITIONS**

I / We hereby confirm that the Tender documents, all annexures etc. have been studied in detail and we have fully understood the scope of work.

I / We accept to all the Terms and Conditions of the Tender Enquiry and the prices quoted are in accordance with the same.

I / We accept to offer valid for a period of **3 months** from the last date for tender submission.

I / We give our acceptance to participate in Reverse Auction in case BHEL decides to go for reverse auction for this tender.

Tender documents duly signed on all the pages by the Owner / authorized representative of the bidder are attached herewith.

**Signature of the bidder with stamp**

**ANNEXURE – X**

Ref : OS/HR/CSR/2015-16/07/008

Date : 03.06.2015

**CHECK LIST OF DOCUMENTS ALONG WITH TECHNICAL BID**

**Description of Work : Construction of 96 Residential Flats in G+3 pattern including Electrical Works in Aganampudi Village, Visakhapatnam under CSR**

- (1) Earnest Money to be deposited : Rs. 2,00,000/-  
DD No. \_\_\_\_\_ Date \_\_\_\_\_
- (2) P.F. Registration No. :
- (3) E.S.I. Registration No. :
- (4) PAN No. :
- (5) Service Tax Regd. No. :
- (6) TIN No. :
- (7) Recent I.T. Clearance Certificate / Ack. :
- (8) Proof of Turnover for the last 3 years :
- (9) Proof of Work Experience for last 7 years :
- (10) List of Tools & Plant :
- (11) Organization chart :
- (12) List of Proposed tools & plant to be deployed at site :
- (13) Organization chart :
- (14) Proposed site organization chart :
- (15) List of Technical Manpower :
- (16) Tentative Bar Chart for the execution of job :
- (17) Power of attorney in the name of the person who has signed the tender document :
- (18) Details of con-current commitments giving contract value , details of work, date of commencement of work, Percentage completed as on date and the schedule date of completion :

Contd... 2

**ANNEXURE – X**

:: 2 ::

**Ref : OS/HR/CSR/2015-16/07/008**

**Date : 03.06.2015**

(19) Other documents supporting eligibility criteria :

Valid Copies in Support of Sl. No. 2 to 19 shall be enclosed.

Postal Address of the Firm :

Contract Person :

Cell No. :

Office Ph. No. :

E- Mail Address :

All the above documents shall be submitted along with a covering letter for submission of tender mentioned at Annexure II of this tender document on firm's letter head.

Signature of the Tenderer

# PART - II ( PRICE BID )

**SCHEDULE OF QUANTITIES AND RATES (SOQR)****NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aaganampudi Village, Visakhapatnam under CSR****IMPORTANT NOTES**

1	Details of the items in SOQR shall be read in conjunction with the corresponding specifications, drawings and other tender documents. The work shall be carried out as per the SOQR and drawings.
2	The quantities in this SOQR are on preliminary design & estimates, and are subject to variation upto + or - 10% during execution stage. However, payment shall be made for the actual quantities executed at site and no variation in rate shall be made on the actual quantities executed at site. BHEL reserves the right to change the quantities even at the time of issuing the work order. Therefore the unit rates quoted shall remain firm throughout the contract period.
3	The Contractor shall draw construction water from a single point given by the customer. Power shall be arranged by the contractor at his own cost and rates quoted shall be inclusive of the same. The contractor shall take all the required connections / equipments / extensions up to the point of use, following all safety / statutory regulations stipulated. In case of disruption of power supply, DG set shall be arranged by contractor at his cost as an alternative measure.
4	Wherever "supplying or providing" is mentioned in the SOQR, it indicates that the rate shall include cost of supply of all materials, labour, tools and plant, temporary arrangements required for the completion of the item of work.
5	Payment for the structural works shall be made on the finished weight only and no extra payment shall be made on account of wastage, losses etc. Hence Contractor shall quote the rates accordingly in the SOQR.
6	Payment for Tor-steel shall be paid only on the finished weights as per drawings and additional laps, lugs, chairs etc. provided shall be measured and paid extra as certified by Engineer- in-charge. No extra payment shall be made on account of wastage, losses etc. Contractor shall have to quote the rates accordingly in the SOQR.
7	Since the proposed works are in the premises of existing structures, all care shall be taken while executing the works, so as not to cause any damage to the existing structures / underground cables or pipes etc. If any damage occurs to the existing facilities, the contractor shall make them good immediately at his cost.
8	Mix design for M20, M25 and M30 concrete as applicable shall be done by contractor and submitted to Engineer-in-charge for approval before proceeding with work.
9	Concrete through own Batching plant or on hire from established batching plant or through weigh batching for Major & Minor civil works as per the design mix is to be used for all concrete works.
10	Wherever mass concreting is to be done and continuous casting is required, the contractor has to make all necessary arrangements like Machines, labour, tools, tackles, etc., without any extra cost.
11	Wooden shuttering shall only be used for all concrete works and it should produce plain smooth and even surface, which will thus be integrally finished. If any impression of the shuttering joints is noticed after striking of the shuttering, the same should be treated by rubbing with carborandum stones (Nothing extra shall be paid on this account). The price for shuttering shall include for providing splayed edges, matching, chamfering, and allowances for overlaps and passing at angles, battens, strutting, bolting wedging, easing, striking and removing. The price shall also to include for all necessary supports, struts, braces etc, dressing with oil (or other approved method) to prevent adhesion between concrete and form work and all raking and circular cutting and waste.
12	In case of site grading and other items involving major earthwork, mechanical equipment like JCB, Pcclean are to be used, wherever necessary.
13	Specifications, standards, etc. mentioned in the tender, SOQR, are to be strictly followed during construction.
14	All the Codes / Standards referred shall be to the Latest Revisions unless otherwise specified.
15	Unless specifically mentioned otherwise in the contract, the tenderer shall quote his rates for the finished items and shall provide for the complete cost towards power, water, fuel, tools, tackles, equipment, construction plant, temporary works, labour, materials, levies, taxes, insurance, royalties, transport, layout, repairs, rectification, maintenance till handing over, supervision, shops & establishment services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically implied but are reasonably implied and necessary to complete the work.
16	OPC Cement 53grade conforming to IS:8112 and HYSD TMT bars of Gr. Fe 500D conforming to IS:1786 shall be supplied & used by Contractor
17	Place for Disposal of excess soil out side the premises to be identified by the contractor only. BHEL shall be indemnified of all statutory regulations in this regard.
18	L1 shall be evaluated on the quoted total value

**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

**NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

**CIVIL WORKS**

**NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

<b>Item No.</b>	<b>Description of Work</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate Rs. P.</b>	<b>Amount Rs.</b>
<b>1.0</b>	<b>Clearing jungle</b> including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared	Sq.M.	1500		
<b>2.0</b>	<b>Surface dressing</b> of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m	Sq.M.	1500		
<b>3.0</b>	<b>Earth work in excavation</b> by mechanical means (Hydraulic excavator) / manual means below ground level for basements, foundations, trenches, drains, pits etc. Rate shall include removal of vegetation and shrubs, cutting of sides in slope, dressing of sides and leveling or grading and ramming of bottoms, shoring & strutting wherever necessary, dewatering of accumulated water from any source and keeping the surface dry for subsequent works and removal of surplus excavated materials including loading & unloading, transporting up to a lead of 200 m and depositing after separating Mooroom with Boulders in spoil heaps, etc. all complete - <b>Up to depth of 1.5m</b>				
<b>3.1</b>	<b>For All kinds of soil</b>	Cu.M.	855		
<b>3.2</b>	<b>For Ordinary rock</b>	Cu.M.	855		
<b>4.0</b>	<b>Earth work in excavation</b> by mechanical means (Hydraulic excavator) / manual means below ground level basements, foundations, trenches, drains pits etc. <b>In ordinary rock.</b> Rate shall include removal of vegetation and shrubs, cutting of sides in slope, dressing of sides and leveling or grading and ramming of bottoms, shoring & strutting wherever necessary, dewatering of accumulated water from any source and keeping the surface dry for subsequent works and removal of surplus excavated materials including loading & unloading, transporting up to a lead of 200 m and depositing after separating Mooroom with Boulders in spoil heaps, etc. all complete - <b>Beyond 1.5 m depth and upto 3 m depth</b>	Cu.M.	375		
<b>5.0</b>	<b>Earth work in filling</b> after execution of the works or filling in plinth to proper grade and levels with selected materials from <b>available excavated soil</b> from soil heaps within a lead of 200 m, including re-excavating the deposited soil excavated earlier, breaking clod, laying at all depths/heights in layers of 150mm thickness, watering and ramming / rolling and compacting to 90% maximum dry density as per IS:2720 Part-VIII and proper dressing etc., all complete.	Cu.M.	855		
<b>6.0</b>	<b>Earth work in filling</b> in specified grade with selected earth <b>brought from outside</b> (approved by Engineer-in-charge), including cost of earth, transportation, loading, unloading, payment of royalty of govt. / any agency, if any, filling in layers not exceeding 200 mm depth in loose, watering, compacting to achieve 90% of maximum dry density, dressing the top etc., complete as directed by Engineer-in-charge. (Borrow pit to be identified by the contractor). BHEL-HPVP / APHSCL to be indemnified by the local statutory bodies.	Cu.M.	2145		
<b>7.0</b>	<b>Supplying and filling with approved sand</b> under floors in foundations and plinth including cost of sand, transportation for all leads and lifts, loading, unloading, spreading in layers of compacted thickness at all depth, watering, ramming, compacting up to 85% relative density, dressing and leveling etc., all complete.	Cu.M.	249		

Signature of the Contractor

**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

<b>NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR</b>					
<b>8.0</b>	<b>Supplying and Filling with Crusher Stone dust</b> under floors in foundations and plinth including cost of sand, transportation for all leads and lifts, loading, unloading, spreading in layers of compacted thickness at all depth, watering, ramming, compacting, dressing and leveling etc., all complete.	<b>Cu.M.</b>	<b>108</b>		
<b>9.0</b>	<b>Providing and laying plain cement concrete of nominal mix by weight 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)</b> at all depths below and up to plinth level in foundations, fillings, blinding courses, mud mat, non-suspended floors etc., including tamping, curing but <b>excluding shuttering</b> , etc. all specified in any shape, position, thickness, and finishing the top surface rough or smooth as specified and directed etc., all complete including cost of cement & aggregate all labour etc. Minimum cement content of 130 kg/Cu. M. as per IS 456:2000.	<b>Cu.M.</b>	<b>198</b>		
<b>10.0</b>	<b>Providing and laying structural controlled cement concrete for reinforced concrete work of Grade M – 30</b> using graded granite stone aggregate 20 mm and down size and minimum 420 kgs of cement per Cu. M. of concrete and as per design mix as per IS:456:2000 including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, at all depths, positions as specified under and in any shape and thickness including leaving pockets, chamfering wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface as specified and shown in foundations / structures of all types (e.g. footings, pedestals, columns, plinth beams, floor slabs, pavements, flooring, suspended or roof slab, drains, staircase, ramps, cable trenches, wall etc.) all complete including cost of cement all labour etc., but <b>excluding cost of reinforcement steel and shuttering, etc.</b>				
<b>10.1</b>	All works upto plinth level	<b>Cu.M.</b>	<b>285</b>		
<b>10.2</b>	All works above plinth level upto V Floor level	<b>Cu.M.</b>	<b>891</b>		
<b>11.0</b>	<b>Supplying &amp; Placing in position of High Yield strength deformed TMT bars of Gr Fe500D conforming to IS:1786 for RCC work at all heights and depths including unloading, carting the same from store / issue points to site of work, straightening, cleaning, de-coiling, cutting, bending to required shape and length as per details, including supply and binding with 16 SWG black soft annealed binding wire and placing with proper cover blocks, supports, chairs, spacers, return of unused / scrap / unserviceable steel to storage point etc., all complete in concrete works</b>	<b>MT</b>	<b>117</b>		
<b>12.0</b>	<b>Centering and Shuttering</b>				
	<b>Providing and fixing centering and shuttering</b> for PCC / RCC works in footings, raft beams and slabs, retaining walls, jambs, trenches and pedestals, pipe sleepers, columns, plinth beams, suspend slabs, beams, stair cases, etc., including strutting, bracing, propping and keeping the same in position during concreting, and removing the same after specified period as per specifications complete for straight shuttering, (plain including) keeping necessary provision for inserts and projecting dowels etc., all complete.				
<b>12.1</b>	Foundations, Slabs, pedestals, columns, beams, trenches, drains etc.; <b>below and up to plinth level.</b>	<b>Sq.M</b>	<b>1515</b>		
<b>12.2</b>	Superstructures like columns, beams, pillars, staircases, walls, suspended floors, roofs, landings, balconies, shelves, lintels etc., <b>for all heights above plinth level.</b>	<b>Sq.M</b>	<b>8610</b>		
<b>13.0</b>	<b>Providing and laying Random Rubble Masonry</b> with hard stone in cement mortar 1:6 in foundation and upto 600 mm above plinth including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level etc. all complete	<b>Cu.M.</b>	<b>57</b>		

Signature of the Contractor

**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

<b>NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR</b>				
<b>14.0</b>	<b>Providing and laying Brick masonry work 150 mm thick with non modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V level in cement mortar (1:6) ( 1 Cement: 6 Coarse sand) including providing recesses, opening, etc., and raking out joints etc., cost of materials all complete.</b>	<b>Cu.M.</b>	<b>630</b>	
<b>15.0</b>	<b>Providing and laying Brick work - 115 mm thick with non modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V level in cement mortar (1:6) ( 1 Cement: 6 Coarse sand) including providing recesses, opening, etc., and raking out joints etc., cost of materials all complete.</b>	<b>Cu.M.</b>	<b>504</b>	
<b>16.0</b>	<b>Providing and laying 40 mm Thk. Cement concrete flooring in panels with 1:2:4 mix concrete with 6 mm and down size stone aggregate tamped, trowelled, and finished rough, and finished smooth with a floating coat of neat cement or non skid surface as directed, including curing, shuttering the edges etc., all complete for all heights and depths including cost of cement and all materials.</b>	<b>Sq.M.</b>	<b>3132</b>	
<b>17.0</b>	<b>Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc, complete.</b>	<b>Sq.M.</b>	<b>132</b>	
<b>18.0</b>	<b>Providing &amp; laying 18 mm thick Cement plaster Dado with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement</b>	<b>Sq.M.</b>	<b>720</b>	
<b>19.0</b>	<b>Providing &amp; laying 12 mm average thick cement plaster in cement mortar 1:5 (1 Cement : 5 coarse Sand) on brick walls including cleaning, hacking concrete surfaces, scaffolding, providing drip groove, watering, curing etc., all complete for all heights including cost of cement.</b>	<b>Sq.M.</b>	<b>18480</b>	
<b>20.0</b>	<b>Providing &amp; laying 6 mm average thick cement plaster in cement mortar 1:3 (1 Cement : 3 coarse Sand) on concrete surfaces in ceiling including cleaning, hacking concrete surfaces, scaffolding, providing drip groove, watering, curing etc., all complete for all heights including cost of cement.</b>	<b>Sq.M.</b>	<b>3450</b>	
<b>21.0</b>	<b>Providing 12 mm average thick cement plaster in cement mortar 1:3 (1 Cement : 3 coarse Sand) on brick walls including cleaning, hacking concrete surfaces, scaffolding, providing drip groove, watering, finished with a floating coat of neat cement, curing etc., all complete for all heights including cost of cement.</b>	<b>Sq.M.</b>	<b>264</b>	
<b>22.0</b>	<b>Supplying and application of three coats of white washing with lime on New work to give a smooth and even shade including cleaning and preparation of surfaces, necessary scaffolding etc., all complete for all heights.</b>	<b>Sq.M.</b>	<b>16080</b>	
<b>23.0</b>	<b>Supplying and application of two coats of Colour washing with lime such as green, blue or buff on new work (two or more coats) with a base coat of white washing to give a smooth and even shade including cleaning and preparation of surfaces, necessary scaffolding etc., all complete for all heights.</b>	<b>Sq.M</b>	<b>5775</b>	
<b>24.0</b>	<b>Providing and fixing factory made upPVC door frame of approved make made of upVC Extruded section profile size of 48 x 40 mm having overall dimension (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 Engineer-in-charge</b>	<b>RM</b>	<b>528</b>	

Signature of the Contractor

**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

**NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

25.0	<p><b>Providing and fixing 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter</b> of approved make made of styles and rails of a 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 the 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.</p>	Sq.M.	144		
26	<p><b>Providing and fixing ISI marked flush door shutters of 35 mm thick conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters including ISI marked Stainless Steel butt hinges with necessary screws, aldtop and tower bolts etc.</b></p>	Sq.M.	528		
27.0	<p><b>Providing and fixing 40 x 40 x 6 MS frames / T-iron frames for doors, windows and ventilators of necessary butt hinges and screws and applying a priming coat of approved steel primer, including 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 20 mm nominal size)</b></p>	KG	19920		
28.0	<p><b>Providing &amp; fixing 4.0 mm thick glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete</b></p>	Sq.M.	192		
29.0	<p><b>Providing and fixing M.S. grills of required pattern in frames of windows with M.S. flats, square or round bars etc. including priming coat with approved steel primer etc. all complete and Fixing to steel windows by welding etc.</b></p>	KG	4872		
30.0	<p><b>Supplying and application of Two coats of Painting with synthetic enamel paint of approved brand and manufacture of required colour on new work over an under coat of suitable primer to give an even shade</b></p>	Sq.M	984		
31.0	<p><b>Providing and placing on terrace (at all floor levels) polyethylene water storage tank of capacity 2000 litres, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.</b></p>	Nos.	12		
32.0	<p><b>Providing and fixing of 40 mm dia nominal bore G.I. pipes and specials (B - Class) of approved brand with G.I fittings and clamps on walls &amp; floors, including cutting and making good the walls &amp; floors etc. complete (Internal work - exposed on walls)</b></p>	RM	60		
33.0	<p><b>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &amp; cold water supply, including all CPVC plain &amp; brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes &amp; fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.</b></p>				
33.1	<p><b>15 mm dia nominal outer dia pipes</b></p>	RM	288		
33.2	<p><b>20 mm dia nominal outer dia pipes</b></p>	RM	144		
33.3	<p><b>25 mm dia nominal outer dia pipes</b></p>	RM	486		

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**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

<b>NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Agramampudi Village, Visakhapatnam under CSR</b>				
<b>34.0</b>	<b>Providing, laying and jointing glazed storeware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete. Earth work excavation for trenches and refilling will be paid separately.</b>			
<b>34.1</b>	150 mm dia	RM	195	
<b>35.0</b>	<b>Providing and fixing PVC pipes of 4 K.G / Sq. Cm. conforming to IS including joining with proper adhesive as suggested by manufacturers for rain water pipes, drainage etc. Rate includes reducers, couplers but excludes specials like shoe, bend, tee, tee with door etc.</b>			
<b>35.1</b>	PVC Pipe 75 mm OD	RM	480	
<b>35.2</b>	PVC Pipe 110 mm OD	RM	1080	
<b>36.0</b>	<b>Providing and fixing PVC moulded fittings / accessories on walls for rain water pipes conforming to IS13592 Type A including joining with seal rings conforming to IS 5382 and proper adhesive as suggested by manufacturers etc.complete.</b>			
<b>36.1</b>	<b>Vent Cowl - 110 mm dia</b>	Nos.	24	
<b>36.2</b>	<b>Y with door - 110 mm dia</b>	Nos.	96	
<b>36.3</b>	<b>L / plain bends - 110 mm Dia</b>	Nos.	144	
<b>36.4</b>	<b>Nahani traps - 75 mm Dia</b>	Nos.	192	
<b>36.5</b>	<b>Tees with Door - 75 mm Dia</b>	Nos.	96	
<b>36.6</b>	<b>PVC Valves - 25 mm dia</b>	Nos.	24	
<b>36.7</b>	<b>PVC Clamps - 75 mm dia</b>	Nos.	480	
<b>36.8</b>	<b>PVC Clamps - 110 mm dia</b>	Nos.	1080	
<b>37.0</b>	<b>Providing and fixing 25 mm nominal bore Gun metal gate valve with C.I. wheel of approved quality (screwed end) etc including all accessories for fixing all complete.</b>	No.	6	
<b>38.0</b>	<b>Providing and fixing PVC Bib cock - 15 mm nominal bore of approved quality including all accessories for fixing etc. all complete.</b>	No.	192	
<b>39.0</b>	<b>Providing and fixing Cuddapah Stone Kitchen sink of size 600x450x 250 mm with C.I. brackets, PVC waste pipe - 40 mm dia (Flexible ) including fittings etc. all complete, including painting the fittings and brackets, cutting and making good the walls wherever required :</b>	No.	96	
<b>40.0</b>	<b>Providing and fixing White Vitreous china Orissa pattern W.C squatting pan (Indian type) of size 580 x 440 mm (White) (Parryware /Neyser / Cera) water closet with integral type foot rests - with 100 mm sand cast Iron P or S trap, conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required and raising the floor level of water closet</b>	No.	96	

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**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

<b>NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR</b>				
41.0	Providing impervious coat over RCC roof slab to required slopes with CM 1:3 proportion - 20 mm thick (average) mixed with water proofing cement compound manufactured by reputed manufacturers as approved by Engineer-in-charge @ 1 kg/bag of cement laid over roof slab when it is green, finished smooth with a floating coat of neat cement and treadinglining at regular intervals of 45 x 45 cm including cost and conveyance of all materials and labour etc. complete	Sq.M.	900	
42.0	Disposal of excavated soil / rock / building rubbish / maba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads upto 1 KM including all lifts involved.	Cu.M.	855	
43.0	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 within a lead upto 1 KM , 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.	Per Trip of 300 Cu. Ft.	30	
44.0	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL anti-termite treatment including the cost of chemical emulsion, labor etc. all complete	Sq. M.	1641	
45.0	Constructing brick masonry road gully chamber 50 x 45 x 60 cm with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500 x 450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design	No.	45	
46.0	Constructing brick masonry manhole with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design - inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :	No.	3	
47.0	Making connection of drain or sewer line for pipes 100 to 250 mm diameter with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :	No.	18	
<b>TOTAL (CIVIL)</b>				

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**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

**NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aganampudi Village, Visakhapatnam under CSR**

**ELECTRICAL WORKS**

<b>Item No.</b>	<b>Description of Work</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate Rs. P.</b>	<b>Amount Rs.</b>
1	Wiring for light point/fan point/call bell point with 1.5sqmm copper PVC insulated copper conductor single core cable in recessed PVC conduit with piano type switch ,phenolic laminated sheet, suitable size MS box and earthing the point with 1.5sqmm FRLS PVC insulated copper conductor single core cable etc as required.	Points	1344		
2	Supply and wiring for circuit/submain wiring along with the earth wire of FRLS PVC insulated copper conductor,single core cable in medium class PVC conduit as required with				
	2X1.5 sq mm+1X1.5sqmm earth wire	Mtr	14400		
3	Supplying and drawing co-axial TV cable RG-6 grade,0.7mm solid copper conductor PE insulated , shielded with fine tinned copper braid and protected with PVC sheath in the PVC conduit required	Mtr	1920		
4	Supplying and fixing of 20mm medium class PVC conduit along with accessories in recess including cutting the wall and making good the same in case of recessed conduit as required	Mtr	5760		
5	Supplying and fixing metal box of following sizes on the surface or in the recess with suitable size of phenolic laminated sheet cover in front including painting etc required				
	5.1 150X150X60mm deep (hall)	Nos.	96		
	5.2 100X100X60mm deep (bed room)	Nos.	96		
	5.3 75X75X60mm deep (kitchen room)	Nos.	96		
6	Supplying and fixing following piano type switch/socket on existing switch box/cover including connections				
	6.1 5/6 amps switch	Nos.	1248		
	6.2 3 pin 5/6 amp socket outlet	Nos.	384		
	6.3 TV antenna socket outlet	Nos.	96		
7	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction including connection etc as required	Nos.	384		
8	Supplying and fixing PVC batten holder including connection etc	Nos.	480		
9	Supplying and fixing of prewired SP&N MCB distribution board of sheet steel for 240Volts on surface/recess complete with loose wire box,terminal connectors for all incoming and outgoing circuits(MCBS) 4way single door	Nos.	96		
10	Supplying and fixing of 5 to 32 amps rating 240V .C curve MCB suitable for inductive load in the existing MCB DBS complete with connections , testing and commissioning ets as required				
	10.1 Single pole(16 Amps)	Nos.	192		
	10.2 Single pole and neutral(25 amps)	Nos.	96		
11	Providing and fixing 18SWG dia GI wire on surface or in recess for looping earthing along with existing surface /recessed conduit/submain wiring/cable as required.	Mtr	9600		

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**SCHEDULE OF QUANTITIES AND RATES (SOQR)**

**NAME OF WORK : Construction of 96 Residential Flats in G+3 pattern including Electrical works in Aagamipudi Village, Visakhapatnam under CSR**

12	Supply and Laying of underground cable in trench, filling with sand, free from earth and other materials in the excavated trench in two layers of 150 mm thick Earth one above and the other below the cable run and lying of one Layer of class-II bricks to the full width of the excavation. The minimum Width of the trench for single cable run of any sizes shall be 300mm,depth shall be 500mm. In case more than one cable laid full rate for the first cable and 70% Of the rate for No. of the subsequent cables laid shall be paid.(Quoted price Includes cost of supply of sand and Bricks and shall be supplied by the contractor)For 1.1KV grade cables with Al. Conductors 3.5X120 Sq mm	Mtr	120		
13	Supply and fixing of main distribution board containing 300A,4 pole incoming SFU and 3nos. Outgoings each of 4 pole 200A SFU complete with internal busbar.All SFUs should be housed in distribution board of 2mm CRCA powder coated box.	Nos.	1		
14	Supply and fixing of distribution board containing 125A,4 pole SFU and 32nos. Outgoings each of 2 pole MCB25A complete with internal wiring and provision for fixing 32 energymeters. All SFUs and MCBs should be housed in distribution board of 2mm CRCA powder coated box.	Nos.	3		
15	Earthing with GI Earth pipe 2.5 meter long, 40mm dia including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe with charcoal/coke and salt as required	Nos.	3		
16	Supply and erection of 25 X 3mm underground GI earth flat from earth pits to distribution boards	Mtr	100		
<b>TOTAL (ELECTRICAL)</b>					
<b>GRAND TOTAL (CIVIL + ELECTRICAL) - In Figures</b>					
<b>GRAND TOTAL (CIVIL + ELECTRICAL) - In Words</b>					

Note : All bought out items should be of reputed make and ISI marked

**SIGNATURE OF THE CONTRACTOR**

Signature of the Contractor