



**BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL DEPARTMENT**

SCHEDULE- A

Tender Notice No:

HY/FCD/OT- 15 /2010-11 , Dt:- 3.09.2010

PRICE BID

Item no : 02

Name of work : Engaging consultancy service provider for
Green Building of PE & SD division

S No	Description of the item	Qty	Unit	Rate (Rs)	Amount (Rs)
PART 'A'- CONSULTANCY WORKS					
1	Preparation of conceptual designs for proposed building to obtain GREEN RATING-4(GRIHA 4 star) incorporating Green Building Standards & techniques including preparation of Bill of quantities ,drawings & estimates for the project. Architectural Planning, Civil & Structural designs, Electrical design, Heating, Ventilation and Air-conditioning system design, Green Building Certification,Preperation ofTender documents, tender scrutiny & evaluation (Payments as per billing schedule attached in the tender document). Please refer detailed scope of work which is attached with tender document.	7600.00	Sq.m	1,345.00	1,02,22,000.00
PART 'B'- SITE SUPERVISION(PMC)					
1	Site supervision, monitoring & control of project execution, submission of monthly &weekly progress report, reviews, notifying deviation ,participating in the meetings etc.(Agency should engage specilist with engineering graduation background & minimum experience of 4-5 yers in this field).Engineer should available at site as per BHEL required timings.	14.00	month	29,858.00	4,18,012.00
Grand Total : (Part A+B)					1,06,40,012.00

Total : Rs. One hundred six lakhs and forty thousand and twelve rupees only.

Service Tax:- The Service tax as applicable is extra which will be paid by BHEL to the agency after submission of necessary valid documents by the agency.

Note : The Tenders are required to quote the tender value on percentage (%) basis at excess or less or on as per estimate value

Tender %	In figure	In words
Excess		
Less		
Estimated value		

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer

SCOPE OF SERVICES

Consultancy services should contain scope of building, GREEN RATING 4 (GRIHA 4 star), layout, orientation of the building, insulation of heat side, rain water harvesting, sewerage treatment etc, Architectural details, structural design, HVAC & other Green building services, Certification of green building from registration to final certification.

I DESIGNS

a) *Conceptual Designs:*

Preparation of conceptual designs including preparation of Bill of Quantities for the project. Minimum 3 alternatives are to be provided for selection by BHEL. BHEL on discussion with agency, will select any one of these alternatives or suggest modifications for any on these scheme for arriving the final acceptable concept.

b) *Architectural Planning:*

Preparing Architectural drawings keeping in view all applicable local state and federal regulations. Providing Detailed Drawing for all items:

c) *Civil & Structural Designs:*

Providing Civil and Structural Designs for STP plant including

- i) *Mark-out Plans***
- ii) *RCC Details***
- iii) *Detailed instructions regarding finishes***
- iv) *Drawings for Sumps, Water Tanks, Drainage and disposal system***

d) *Electrical Works:*

- i) Providing Internal Electrification details for Lighting with Illumination Design / Wiring / Cabling**
- ii) Selection & Sizing of MCB distribution Boards for UPS Power Distribution & Normal Power Distribution**
- iii) Design of Power Control Centres with switch fuse units / MCCB s for reliable operation**
- iv) Recommending Emergency Power Supply through DG Sets, AMF Panels.**
- v) Selection & Sizing of UPS system with reliable configuration.**
- vi) Selection and sizing of Transformers.**
- vii) Design of Sub-station (Indoor / Outdoor)**
- viii) Selection & sizing of Automatic Power Factor improvement Capacitors**
- ix) Providing details of earthing for power systems/ DG Sets and special earthing for computer systems and also for distribution transformer.**
- x) Providing layouts of conduits for Telephone & Computer Network.**
- xi) Designs of Distribution Systems.**
- xii) Suggesting economical schemes for effective utilisation of electrical energy.**

CONTRACTOR(S)

ISSUING OFFICER

e) **Heating, Ventilation and Air-conditioning Systems Design:**

- i) Estimation: Comprehensive estimations of Air-conditioning & Refrigeration Loads
- ii) System Design: Providing and economical system design based on estimated loads
- iii) Analysis: Techno-economic analysis of suitable system and equipment
- iv) Tender Specification: Detailed specifications of total system with detailed bill of quantities and estimated rates, market rates with backup quotations are to be submitted, also wherever CPWD-DSR-2007 items are available, references are to be provided in the estimates.
- v) Evaluation of Offers: Techno-economical comparison and comparative statement of offers received

II GREEN BUILDING CERTIFICATION

Consultancy for the facilitation / energy modelling and commissioning required for preparing the documentation and also for getting the GRIHA 4 - Star rating for the project.

III PROJECT MANAGEMENT;

a) Pretender:

- i) Preparation of Technical Specifications
- ii) Preparation of Estimates
- iii) Preparation of Tender Schedules
- iv) Screening of Agencies and Short-listing them
- v) Invitation of Bids & Issue of Tender Documents

b) Post Tender:

- i) Receiving the Bids
- ii) Evaluation of bids received and preparation of Comparative Statement
- iii) Techno Commercial Negotiations
- iv) Finalising the agencies to carry out the works
- v) Issue of Work Orders

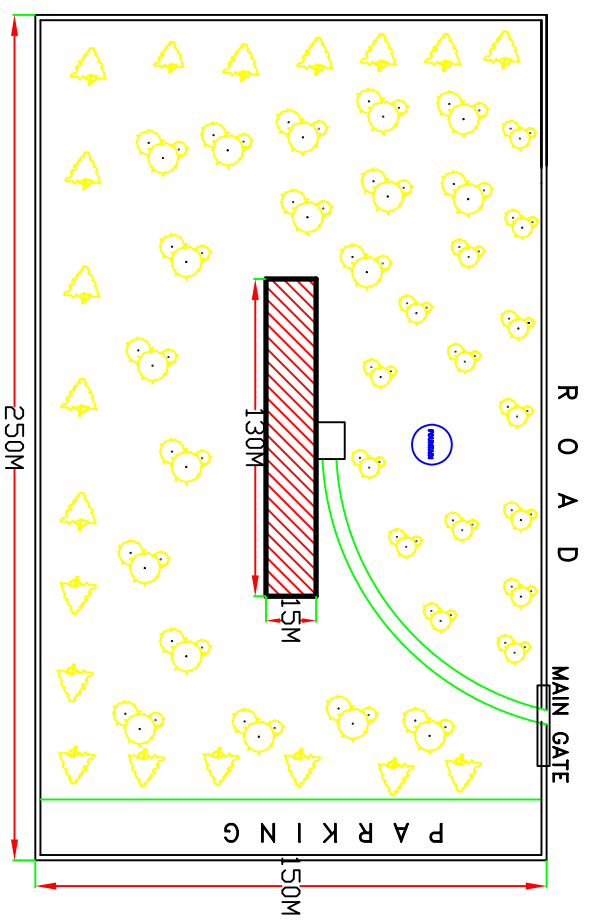
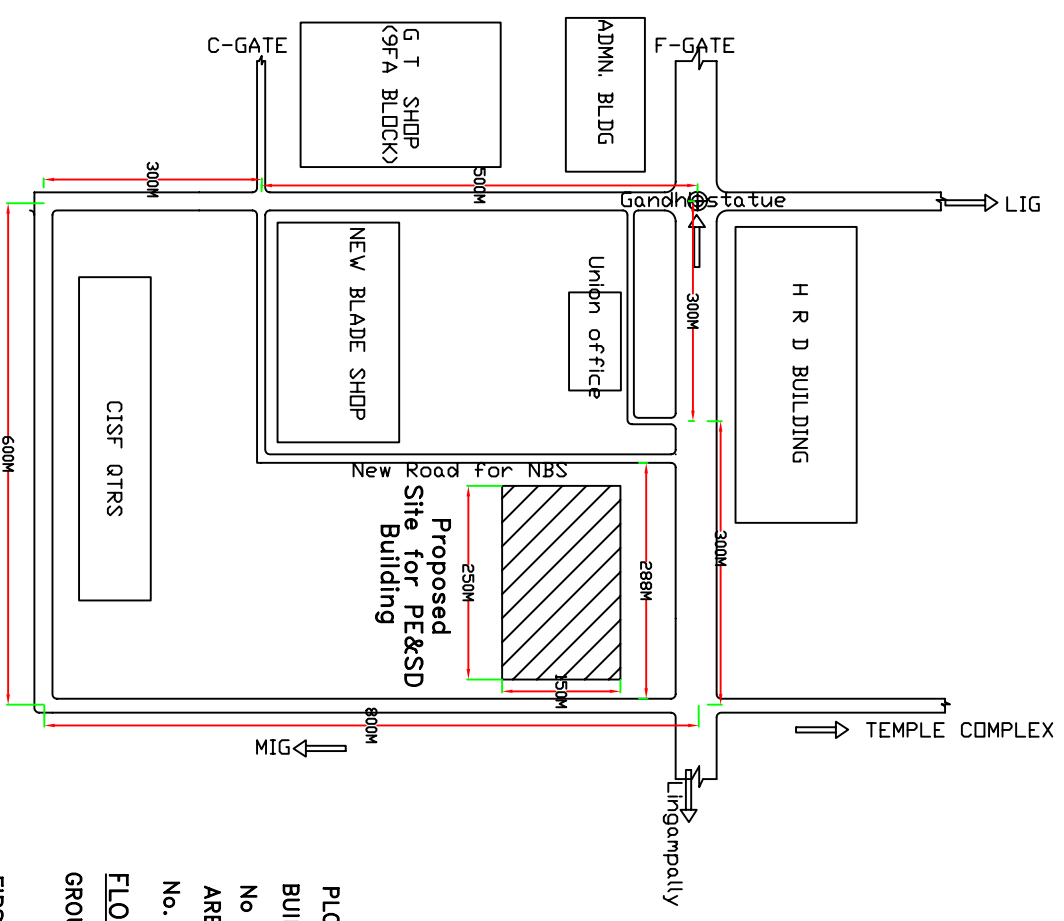
c) Execution:

- i) Finalising the Time Schedules of works with the contractors
- ii) Inspecting & approval of the mark-outs at site
- iii) Inspection & approval of the quality of works
- iv) Periodic revival of progress of works
- vi) Advising the client regarding Time/Cost overruns
- vii) Issue of Certificates of Virtual Completion of Works
- viii) Co-ordinating between agencies and listing out priorities based on Client needs

CONTRACTOR(S)

ISSUING OFFICER

LOCATION PLAN



PROPOSED 'PE&SD' BUILDING (Green building)

- PLOT AREA :** 250M X 150M
BUILDING SIZE : 130M X 15M,
No OF FLOORS : 4 (GROUND + 3 FLOORS),
AREA OF EACH FLOOR : 1950 SQ.M
No. OF PERSONS TO BE ACCOMODATED : 350
- FLOOR WISE DEPARTMENTS :**
- GROUND FLOOR:--** Office of HOD, Conf.halls-2Nos (200&50 capacity),
 Discussion rooms, Dining hall,VVIP Room & Services
- FIRST FLOOR :--** 1. PED Mechanical,
 2. Proposals and Purchase
- SECOND FLOOR:--** 1. Electricals and C&I.
 2. Civil, Engg. Co-ordination and Support Services
- THIRD FLOOR:--** 1. Erection Group
 2. Commissioning & Comml.

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PREPARED BY M.KOTHALE CHECKED BY CH.V.PRASAD DATE 04-05-2010 SCALE 1:100	PROPOSED LOCATION OF PE & SD BUILDING (GREEN BUILDING) INDUSTRIAL ENGG. DEPARTMENT HYDERABAD
DRAWING NO.... IE/10/450/364	