

**PROPOSED MOTHER AND CHILD HEALTHCARE CENTER AT  
AMRITSAR MEDICAL COLLEGE, AMRITSAR, PUNJAB**

**TENDER FOR  
APPOINTMENT OF DESIGN CONSULTANT FOR CIVIL/STR.,  
PHE/SERVICES AND HVAC WORKS FOR TENDER STAGE  
AND WORKING STAGE**

**JAN, 2008**

---

**Consultant: HSCC (I) Ltd. E-6(A), Sector-1, NOIDA, U.P.-201301**

**Tel: (0120) 2542436, 2542437, 2542439**

**Fax: (0120) 2542447**

**Web Site: [www.hsccltd.co.in](http://www.hsccltd.co.in)**

---

**Name of Work: Proposed Mother & Child Health care center at Amritsar Medical College, Amritsar, Punjab.**

**CONTENTS:**

<b>S. No.</b>	<b>DESCRIPTION</b>	<b>Page No.</b>
1	Contents	2
2	Instructions	3
3	Pre qualifying Criteria	6
4	Scope of Work (Annexure-1)	9
5	Price & Payment Terms ( Annexure-II)	22
6	Time Schedule & Liquidated Damages (Annexure-III)	25
7	General Conditions & Special Conditions of Contract (Annexure-IV)	30
8	Experience Details (Annexure-V)	37
9	Personnel Capabilities (Annexure-VI)	39
10	Computer Capabilities (Annexure-VII)	41
11	Financial Capabilities (Annexure-VIII)	43
12	Stickers (Annexure-IX)	45

Tender for Appointment of Design Consultant for tender stage and working stage for Proposed Mother & Child Health care center at Amritsar Medical College, Amritsar, Punjab

**2. INSTRUCTIONS**

Offers are hereby invited by HSCC on behalf of the Govt. of Punjab (owner) from competent (as per Pre Qualifying Criteria) Design Consultants. The agency shall carry out the Design & Drawing work as mentioned in Scope of Work for the above project as per enclosed scope of work, general terms and conditions, time period and mode of payments etc.

The offer shall be submitted in one sealed cover marked Envelope-1 containing another three envelopes marked Envelope 2, Envelope 3 & Envelope-4 as described below. Further, all sealed envelopes should carry respective stickers (in A-4 size with font letter size of 16) on its top (see Annexure IX):

**ENVELOPE MARKED NO.1** Shall contain three other envelopes marked Envelope-2 Envelope-3 & Envelope-4

**ENVELOPE MARKED NO.2** Shall contain cost of tender of Rs.1000/- (non-refundable) and an Earnest money of Rs. 18,000/- (refundable) in the form of either demand draft or pay order in favour of HSCC (India) Ltd, payable at Noida / Delhi.

**ENVELOPE MARKED NO. 3** Shall contain Pre Qualifying Criteria duly signed, in the form of Table A and supported by requisite documents (shall be opened only if Cost of tender & EMD is enclosed in Envelope marked -2). Duly signed & filled Annexure V to Annexure VIII are to be enclosed in envelope No.3.

**ENVELOPE MARKED NO. 4** Shall contain all documents supplied with the tender duly signed and filled along with the Price Bid. (This envelope shall only be opened if all the

Pre Qualifying criteria is fulfilled) The tenderers qualifying in the PQ shall be informed in writing & they can make themselves available on the day of Price Bid Opening.

The last date of submission of tender is, January 16, 2008 up to 1500 Hrs.

**The tenders are to be put in the *Special Tender Box* provided at Ground Floor of HSCC Building . from 0900 Hrs of January 10, 2008 to 1500 Hrs of January 16, 2008. No other method of depositing of Tender shall be acceptable.**

The tenders shall be opened in the presence of the representatives of the bidders who wish to participate in tender opening

- **Envelope Marked No.1, 2 & 3** to be opened at 1530 Hrs on same day i.e., January 16, 2008 in the Corporate Office of HSCC (I) Ltd.
  
- **Envelope Marked No.4** to be opened. At 1530 Hrs on January 22, 2008 in the Corporate office of HSCC (I) Ltd.

**Address of Corporate Office:**

**HSCC (India) Ltd.**

**E – 6(A), Sector –1, NOIDA,**

**U.P, Pin- 201301.**

Offers not complete in all respects and/or received without the cost of tender, earnest money, and conditional or not in accordance with our terms and conditions, will be summarily rejected. The decision of HSCC shall be final and binding in this regard. HSCC reserves the right to accept or reject any or all quotations without assigning any reason thereof and also take no responsibility for delay, loss or non-receipt of quotations sent by post either way.

Kindly note that offers shall be valid for three months from date of submission of your bid.

Thanking you.

Yours faithfully,

-----sd-----

(VV Govinda Rao)  
General Manager (Structural)

### **3. PRE QUALIFICATION CRITERIA**

**Following is the pre qualification criteria for the tenderers:**

Consultants/ agencies working for CPWD, Railways, MES, P & T Deptt., State PWD's, Semi govt. Organizations and Institutes or in reputed private Sector Firms who satisfy following criteria may participate :

**TABLE- A**

S.N.	PQ Criteria	Remarks (tick the correct one)	Supported Documents in the form of -
1	Average Annual financial turnover during the last three years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost of the work.	Provided/Not Provided	Copies certified by Chartered Accountant
2	Experience of having successfully completed 'similar works'* during last seven years ending last day of month previous to the one in which applications are invited should be either of the following; (a) Three similar completed works consisting not less than the amount equal to 40% of the estimated cost. Or (b) Two similar completed works consisting not less than the amount equal to 50% of the estimated cost. Or (c) One similar completed works consisting not less than the amount equal to 80% of the estimated cost.	Provided/Not Provided  Provided/Not Provided  Provided/Not Provided	Self Attested Copies on single paper given by Client which certifies that  - <i>Type of Work ( like whether Hospital, Residential, Institutional , etc)</i>  - <i>Successful completion</i>  - <i>Date of start &amp; end of Work</i>  - <i>Consultancy Fees in form of Rupees</i>
3	Turnover/Balance sheet details for the last 3 years are to be submitted.	Provided/Not Provided	Copies certified by Chartered Accountant
4	Certificate stating that the agency should have been in existence for atleast 3 years carrying out this nature of work.	Provided/Not Provided	Affidavit to be given on Non Judicial Stamp Paper of Rs10/-
5	Certificate stating all the Civil / Structural / PHE / Services / HVAC works shall be handled in house or through associates (detail to be annexed with credential & consent). The office should be located in Delhi / NCR where this work would be carried out. The Civil / Structural / PHE / Services / HVAC consultant engaged for the work are having minimum 7 year of experience	Provided/Not Provided	Affidavit to be given on Non Judicial Stamp Paper of Rs10/-

- *The estimated cost of the work is Rs. 18.60 Crores approx (Rupees Eighteen crores and Sixty Lacs only approx)*

\* Similar works here mean Consultancies engaged in providing consultancy Services in the field of Civil/Structure, HVAC, PHE/Services of Hospitals/Laboratories or Institutional Buildings. as per particulars mentioned in Scope of work

## **ANNEXURE-1: SCOPE OF WORK**

## **ANNEXURE-1: SCOPE OF WORK**

The scope of work in this enquiry is as under

- Tender stage for civil/structural & PHE/Services / HVAC shall comprise of following
  - a) Drawings.
  - b) Supporting Design calculation
  - c) BOQ.
  - d) Estimation
  - e) Technical specification
  - f) Rate Justification.
  - g) Tender document
  
- Working Stage drawings and Design calculations for Civil/ Structure and PHE/ Services and HVAC..

### **1. General Scope of Work**

HSCC has already prepared architectural drawings for the said project and is ready with drawings as **listed below**: The consultant has to carry out further work on lines of these already prepared drawings. Consultant is advised to visit HSCC office and see these arch.drawings before submitting their offers since this input will be made available to consultant for preparation of Tender stage / final drawings.

- Study of HSCC architectural inputs (including general arrangement plan, sections, elevations and levels, details) and their complete correlation with consultants' drawings for concurrence & consistence.

#### **1.1 Proposed building for Mother & Child Care Center consisting of Basement + Ground floor + 9 stories as per drawings**

##### **i) List of architectural drawings**

S. No.	Name of Drawings
1	Basement plan
2	Ground Floor Plan
3	First Floor Plan
4	Second Floor Plan
5	Third Floor Plan
6	Fourth Floor Plan
7	Fifth Floor Plan
8	Sixth Floor Plan
9	Seventh Floor Plan
10	Eighth Floor Plan
11	Ninth Floor Plan
12	Terarce floor plan
13	Door / Window shedule
14	Elevations A
15	Elevations B&D

16	Elevations C
17	Section 2-2

## ii) Area & No. of Floors

S. No.	No. of Floors	Area (m2)
1	Basement floor	270.00
2	Ground Floor	1615.24
3	First floor	1649.00
4	Second Floor	1468.88
5	Third Floor	1155.40
6	Fourth Floor	1155.40
7	Fifth Floor	1029.76
8	Sixth Floor	842.36
9	Seventh Floor	842.36
10	Eighth Floor	842.36
11	Ninth floor	842.36
12	Terrace Floor	91.00
13	TOTAL	11804.20 (approx)

*The drawings may undergo minor/major revisions as per requirement of project/ Site condition /Customer and the same shall be carried out by the consultant for all disciplines appropriately in the stipulated price.*

## iii) Drafting aspects:

- All drawings are to be made as per CAD standards adopted by HSCC based on the following:
  - a) Directory structure
  - b) File naming
  - c) Layer naming
  - d) Colour
  - e) Pen thickness
  - f) Text style & size

## **2. SCOPE OF WORK (Tender Stage)**

### **2.1 General**

HSCC India Ltd. Shall supply the architectural plans & drawings, which shall form the basis of your designs for following services.

### **2.1.1 External Services**

- Roads
- Water supply system including Bore well.
- Pump House etc.
- Sewerage system including effluent treatment plant.
- Storm water drainage system.
- Rain water harvesting
- Recycling of waste water
- Solar water heating system
- Fire Fighting System
- Waste management
- Incinator
- HVAC

## **2.2 General Scope of Work**

### **2.2.1 Preliminary study**

- a) Study of architecture dwg including arch arrangement plan, sections, elevations and levels, details – thereafter correlation of all the dwg for concurrence & consistence.
- b) Specific evaluation of arch dwg for consistency with contour.
- c) Comments on arch dwg and resolution of the same by internal co-ordination.
- d) Conclusion on all internal detail with the architects, finishes / schedule specification, arch dwg for completion so as to facilitate preparation of BOQ.

### **2.2.2 Preparation and submission of concept report.**

The consultant will prepare design concept report separately for each discipline such as civil/str, PHE services, Solar water heating system, Incinator and Fire Fighting system and submit it for approval.

### **2.2.3 Preparation and Submission of tender drawing.**

- a) Based on the concept design report consultant will do preliminary design for all disciplines and prepare tender dwg for respective disciplines. The draft tender dwg will be submitted to HSCC India Ltd. For approval. The consultant has to co-ordinate with different discipline such as Civil/Str, Electrical, HVAC etc.
- b) In addition to above consultant has to prepare and submit tender dwg for all other disciplines such as Civil/Str, PHE / Services, HVAC.

### **2.2.4 Preparation and Submission of data sheet**

The consultant will prepare and submit data sheet indicating detail requirement of each room such as sanitary, floor finish etc. which shall enable Consultant to quantify BOQ.

### **2.2.5 Preparation and Submission of BOQ**

- a) The consultant will prepare BOQ for all disciplines such as Civil/Str, PHE, Fire Fighting and HVAC works except Electrical.
- b) BOQ shall be supplemented with detailed take off sheet, wherever assumption are made, same shall be clearly spell out and whatever basis for assumption are taken same shall be listed.
- c) For all items actual executed quantities deviating more than 15% shall be expandable by the consultant in a written transmittal form assigning clear & unambiguous reasons there for & true errors, if any, in computing BOQ shall be identified. The Consultant shall be liable for error in BOQ.
- d) The consultant have to co-ordinate with HSCC India Ltd. Respective discipline wise and follow HSCC India Ltd. Format for preparation of BOQ.

### **2.2.6 Preparation and Submission of cost estimates**

- a) The consultant will prepare and submit detailed cost estimate based on state PWD schedule / DSR / SR for scheduled items. For non-schedule items estimate is to be prepared based on market rates.
- b) Rate analysis is to be submitted separately based on current market rate and labour wages for materials and workmanship for all items.
- c) The consultant should also submit supporting documents for rate analysis.

### **2.2.7 Preparation and Submission of Take off sheets.**

The consultant has to prepare item wise detailed take-off sheets for calculation of BOQ. The same shall be submitted along BOQ item.

### **2.2.8 Preparation and Submission of Technical Specification**

The consultant will prepare of technical specifications for all relevant items related to disciplines covered under the scope of work.

## **2.3 DETAILED SCOPE OF WORK (tender Stage)**

### **2.3.1 SCOPE OF WORK CIVIL / STRUCTURAL(tender Stage)**

Structural design & drg shall be executed as below

- a. Comments on arch drg & input to the arch drg accordingly keeping in view the structural system requirements.

- b. Conclusion on framing plans, structural system.
- c. Loads- brief description of basic loads, member loads, earthquake and wind loads including load combinations.
- d. STAAD analysis (one space frame per building)- so as to ascertain the beam-column size & a classification/ grouping of extent of r/f.
- e. Sample representative beam, column, slab, footing designs- so as to converge on the quantities.
- f. Tender drgs.- as per enclosed list.
- g. Approval & clearance from D&E / HSCC shall be obtained for all above steps.

Relevant codes (latest), standards & the prevailing good engg. Practices shall be followed in carrying out the above work. Details/References (of same) shall be furnished wherever required by HSCC.

### **2.3.2 SCOPE OF WORK FOR PUBLIC HEALTH ENGINEERING & SERVICES**

**ROADS, WATER SUPPLY, SEWERAGE, STROM WATER DRAINAGE AND FIRE FIGHTING, SOLAR HOT WATER SYSTEM, INCINATOR, EFFLUENT TREATMENT PLANT FOR THE BUILDING.**

#### **2.3.2.1 Roads**

- a) Planning and designing road layout, road L-section as well as road cross section, retaining wall, culverts and any other works related to road work.
- b) Planning and designing drainage system of road.

#### **2.3.2.2 Water supply**

- a) Planning and designing of internal and external water supply and plumbing system including assessment of water requirement.
- b) Preliminary design and layout drawings of underground storage tanks, surface storage tank, water treatment plant, pump house, piping for water supply scheme.
- c) Integrated source of Water Bore well, Intake, Rain Water.
- d) Preliminary Design of Storage reservoir / lake for collecting rain water.
- e) Recycling of Rain water, treated waste for domestic / non domestic use.
- f) Design and layout drawings of over head tanks over the buildings, including mechanical pipe fittings, valves and connections.
- g) The plumbing drawings shall indicate the size and location of the pipes, details and plan view, and supporting details of equipments and plumbing fitting & fixtures along with the locations, legends, notes etc. complete.

#### **2.3.2.3 Sewarage System & ETP**

- a) Planning and designing of internal and external sewerage system and plumbing system including assessment of sewerage discharge..

- b) Treatment facilities of sewage / hospital effluent water and reuse of treated water for Horticulture etc.

#### **2.3.2.4 Storm Water Drainage System**

- a) Planning and designing of internal and external storm water drainage system.
- b) Disposal System of Storm water.

#### **2.3.2.5 Fire Fighting System**

- a) Design of Fire Fighting System as per latest bye-laws.
- b) Design of Fire ring, yard hydrant, wet riser system, Sprinkler system etc as per latest code.

#### **2.3.2.6 Solar Hot Water System**

- a) Planning & Designing of Solar Hot Water System as per latest Bye- laws, including designing and preparation of BOQ.

#### **2.3.2.7 Incinator**

- a) Planning & Designing of Incinator as per latest Bye- laws, including designing and preparation of BOQ.
- b) The incinator shall confirm to the requirements of State Pollution Control Board / Central Pollution Control Board and obtaining approval, if any.

### **2.3.3 SCOPE OF WORK HVAC Design (tender stage)**

#### **2.3.3.1 Scope of work:**

The Scope of Work involves carrying out HVAC Design & Detailing Works and preparation of drawings.

2.3.3.2 The details of the buildings are as under:

Sr. No	Building	Approx. AC Area
1.	G+9 Floor Building	6860 sqm

2.3.3.3 HVAC Design, Detailing and Preparation of Drawings.

Design & detailing works including heat load calculations, planning of HVAC system, selection, ducting, piping design preparation of drawings and detailing, Preparation of Technical Specifications.

Complete design calculations, quantity analysis along with all drawings shall be in the scope of works and shall be submitted by the consultant for which nothing extra is payable.

- a. Detailed heat load calculation for summer, monsoon and winter conditions and calculation of tonnage and air quantities to be supplied to the air-conditioned areas.
- b. Basis of equipment selection with supporting calculations
- c. Detailed Schedule of equipments
- d. Detailed air distribution layout drawings in double lines with duct sizes, air quantities, air handling units size and capacities, sizes and locations of grilles/diffusers etc.
- e. Detailed piping distribution layout drawings in double line with pipe sizes, water flow rates, pumps and cooling tower sizes and capacities etc.
- f. Plant room equipment layout drawing in double lines with sectional details
- g. Ducting, piping and insulation fabrication and installation details drawings
- h. Preparation of detailed equipment specifications, technical data schedules of equipments

### **3 Documentation of Design and Drawings (Tender Stage):**

3.1 The following design and drawing outputs shall be submitted by the design consultant at Tender Stage:

- a) One set of hard copy of all drawings in A1 size
  - b) One set of hard copy of all design calculations along with support documents
  - c) One set of hard copy of Bill of Quantities along with Soft copy.
  - d) One set of detailed cost estimates along with backups
  - e) One set of soft copy of all design calculations and drawings in CD.
  - f) One set of hard copy of technical specifications along with soft copy.
  - g) One set of hard copy of justification of rates along with soft copy.
- One set of hard copy of take off sheet / measurement sheet along with soft copy.

### **4. Scope of Work (Working Stage)**

**The working drawings are to be prepared for Mother & Child Care Center. It is to be clearly understood that the number of drgs can not be limited to any fixed number for the detailed/ execution stage & the appropriate number of drgs. shall have to be made as per project requirements & following good engineering practices.**

- This shall include preparation of detailed working drawings, getting comments from HSCC & finalization of the drawings on the basis of the comments.

#### 4.1 Scope of work for Civil/Structural (Working stage)

Structural design & drgs. shall cover the following scope & items of work.

- a) Thorough study of the architectural drgs & input to the arch drgs considering the requirements of the structural system.
- b) Approved Architecture drawings from Architecture Deptt., HSCC to be taken up for starting the Structural work, a copy of the same to be submitted with the final Structural drawings.
- c) All drawings of civil/structural shall be vetted by IIT, Delhi / DCE. However the fees payable to IIT/DCE shall be borne by HSCC. The consultant shall recruit his engineer from time to time as required for discussions/ coordination with IIT/DCE professors, incorporate their comments appropriately to their satisfaction & ensure to produce a design worthy of approval from IIT/DCE. Total responsibility in this regard shall be borne by the consultant.
- d) Structure design Basis Report viz. the assumptions to be made in Structure analysis and Design, to be approved from D&E, HSCC before start of the work.
- e) Structural System to be worked out in close co-ordination with D&E and Architecture Deptt., HSCC and the same to be approved before start of Space Frame Analysis.
- f) Similar coordination with other disciplines (Electrical, HVAC, PHE) by way of study of their drawings critically & recording the constraints/ special requirements of the structural elements sizes/ cutouts/ inserts etc.
- g) Conclusion on detailed framing plans, structural system for foundations & superstructure. The structural system has to be worked out so as to achieve a economical and safe design keeping in view the Serviceability requirements.
- h) Loads- Complete description of Basic loads, member loads, Earthquake and wind loads including load combinations. This shall also include any special loads like equipment loads, dynamic loads etc. For water containing structures, hydraulic pressures to be considered appropriately.
- i) STAAD analysis modeling the building as appropriate space frame(s) - The structural elements shall be accordingly sized to obtain the optimal designs based on the criteria as decided & approved by HSCC. Appropriate checks for deflections of structure as well as the individual members so as to restrict the same within permissible codal limits. Only Space Frame modeled with Dynamic Input & Analysis will be considered.
- j) Complete structural designs of all elements of sub & super structure. This shall include the designs of beams, columns, slabs, footings/ rafts - so that the design information can be readily converted into the detailed execution drgs. Each of the Structural drawings

shall include a table showing the quantity of steel used bar dia wise and quantity of RCC used on that particular drawing. A separate sheet shall be submitted to keep track of the various major items qtys as the drawings progress floorwise i.e., the items of RCC, steel, shuttering, brickwork, flooring (category-wise), external finish quantities used to be submitted periodically.

- k) Detailed execution drgs. as well as any revisions their in arising out of site constraints or any other requirements like changes in the other discipline drgs.
- l) Wherever the construction planning has to be specifically suited to certain design requirements, the sequence of construction shall also be identified appropriately.
- m) All responsibilities concerning with the stability of Structure, Structural drawings, compatibility with Architectural drawings, etc. lies with consultant Organization. A Structural Stability Certificate in line with HSCC's requirements/project requirement is also to be finished by the consultant.
- n) Final approved drawings, in principle, from D&E, HSCC to be signed by two Structural Engineers of consultant Organization before forwarding the same to D&E, HSCC
- o) Approval & clearance from D & E / HSCC shall be obtained for all the designs & drgs.

*Relevant codes (latest), standards & the prevailing good engg. practices shall be followed in carrying out the above work. Details/References (of same) shall be furnished so as to facilitate the checking of design calculations etc.*

#### **4.2 Scope of Work for PHE/Fire Fighting & other Services (Working stage):**

This will include following sub parts.

##### **4.2.1 Roads**

- a) Planning and designing road layout – Alternative road layout in order to minimize cost and Finding co-ordinates of road center line at the interval of not more than 20 m on straight line and at all junctions, curve, turning points.
- b) Alternative road layout to optimize cost of excavation and filling keeping in view the better serviceability.
- c) L-section showing chain age, Ground level, formation level, depth of cut, depth of fill, longitudinal slope, location of culvert etc.
- d) Design of typical road cross in cutting, filling. Depth, camber design etc.
- e) Design of horizontal curve, vertical curve, super elevation, retaining wall, culverts and any other works related to road work.

- f) Planning and designing of road drainage system.

#### **4.2.2 Water Supply**

- a) Identification of different source of water and their potential to deliver- river, bore well, rain water etc.
- b) Assessment of water requirement for each buildings and facilities.
- c) Planning and designing of internal water supply system for each building. Calculation of fixtures unit, size of riser, down take and horizontal pipe. Head loss, Pressure check at delivery point. Storage capacity of terrace tank. Details of valve and fixtures.
- d) Planning and designing of external water supply system –rising main/gravity and branch pipe. Design should be done using software package-Preferable LOOP/BRANCH developed by UNDP.
- e) Design of underground storage tanks cum pump house.
- f) Design of water treatment plant, pump house, piping for water supply scheme.
- g) Design and layout drawings of over head tanks over the buildings, including mechanical pipe fittings, valves and connections.
- h) The plumbing drawings shall indicate the size and location of the pipes, details and plan view, and supporting details of equipments and plumbing fitting & fixtures along with locations, legends, notes etc. complete.
- i) Design of Rain water harvesting scheme

#### **4.2.3 Sewerage System**

- a) Planning and designing of internal sewerage system. Size, slope and specification of soil pipe, waste pipe, vent pipe. Details of sunken area-co-ordination with structural drawings for beam/slab sleeve details. Details of Floor trap, floor drain, FCO. and plumbing system .
- b) Assessment of sewage discharge from each building. Design of external sewerage system. Details of Manhole, Gully Trap, Cradle, Junction etc.
- c) Design of sewage/effluent treatment plant. Process details. Capacity of treatment facilities of sewage / waste water.
- d) Design for Reuse / recycle of Hospital Effluent.
- e) Obtaining of approval from Pollution Control Board / Municipal Corporation / Sewerage Board etc, if any required.

#### 4.2.4 Storm Water Drainage System

- a) Design of roof drainage. Provision of rain water pipe , gutter etc for disposal of rain water.
- b) Disposal system of storm water beside building / complex.
- c) Storage system of rain water for recycles.
- d) Design of external storm water drainage scheme and final disposal system.
- e) Detailed design of rain water harvesting system.
- f) Formation level of buildings and surrounding areas for surface drainage.

#### 4.2.5 Fire Fighting System

- a) Identify minimum requirement of fire fighting system as per latest building by-laws and NBC, also considering the local authority guidelines.
- b) Design of internal/external fire fighting system including main fire ring, yard hydrant, fire tank, pumping system and all other items required as per latest by laws.
- c) Design of internal fire fighting system such as wet riser, down comer, first aid hose reel, sprinkler system and all other accessories as per latest code.
- d) **Obtaining of approval from local fire authorities.**

### **4.3 SCOPE OF HVAC Design work ( Working Stage) :-**

#### 4.3.1 Scope of work:

The Scope of Work involves carrying out HVAC Design & Detailing Works and preparation of drawings.

#### 4.3.2 HVAC Design, Detailing and Preparation of Drawings.

Design & detailing works including heat load calculations, planning of HVAC system, selection, ducting, piping design preparation of drawings and detailing, Preparation of Technical Specifications.

Complete design calculations, quantity analysis along with all drawings shall be in the scope of works and shall be submitted by the consultant for which nothing extra is payable.

1. Detailed heat load calculation for summer, monsoon and winter conditions and calculation of tonnage and air quantities to be supplied to the air-conditioned areas.
2. Basis of equipment selection with supporting calculations
3. Detailed Schedule of equipments
4. Detailed air distribution layout drawings in double lines with duct sizes, air quantities, air handling units size and capacities, sizes and locations of grilles/diffusers etc.
5. Detailed piping distribution layout drawings in double line with pipe sizes, water flow rates, pumps and cooling tower sizes and capacities etc.
6. Plant room equipment layout drawing in double lines with sectional details
7. Ducting, piping and insulation fabrication and installation details drawings
8. Preparation of detailed equipment specifications, technical data schedules of equipments.
9. Detail estimates of the HVAC works.
10. Detailed execution drawings as well as any revisions their in arising out of site constraints or any other requirements like changes in other discipline drawings.
11. Details of location of pipes, ducts fitting and fixtures along with the locations.

**5. Sets for submission of drawings (for all disciplines) during Working Stage:**

Design Calculation	: 1 set + soft copy
Drawings	: Maximum 3 check prints progressively + soft copy each time
Final drawings	: 2 set + soft copy

## **ANNEXURE- II: PRICE & PAYMENT TERMS**

## **1. ANNEXURE- II: PRICE & PAYMENT TERMS**

**1.1 Price:** 'The consultancy fee shall be (A+B+C)Total lump sum consultancy fee' Rs. \_\_\_\_\_ (In words ----- ) inclusive of all taxes.

S.No	Stage of work	Discipline-wise split to be followed for billing purpose in the respective stage			
1	Tender Stage (35% of total consulkancy fees)	Civil/ Structural (A)	PHE/Services (B)	HVAC (C)	Total (INR)
		A-1 (60%)	B-1 (25%)	C-1 (15%)	(A1+B1+C1) (100%)
2	Working Stage (65% of total consulkancy fees)	A-2 (60%)	B-2 (25%)	C-2 (15%)	(A2+B2+C2) (100%)

**\*The consultant is not required to fill up the above table**

**1.2 Payment Terms:** This 'Total lump sum consultancy fee' (as per order value) shall be payable only after all milestones at respective A, B and C have been completed to the satisfaction of HSCC.

- The consultant shall submit maximum 6 running bills (each running bill to be raised after completing at least one of above of A, B or C & one final bill.

**1.3 Invoices:**

For all Stages the consultant shall raise three sets of invoices:

- a) Only after completion of the respective stages as listed in the table above.
- b) Billing break-up as above shall be strictly followed.
- c) No further splits of the prices shall be considered for billing purposes.
- d) For the purpose of billing break up, the consultancy fee shall be split into three parts A, B, C discipline wise.
- e) Further the split of fees in Tender stage & Working stage shall be 35% & 65 % respectively, accordingly the billing breakup discipline wise and stage wise consists of A1, B1, C1 (tender stage) & A2, B2, C2 (working stage).
- f) 10% of total consultancy fees will be released after completion certificate from statutory authorities and handing over of the project to the client.

#### **1.4 Security deposit**

A Security deposit of 10% of running bills subject to a maximum of 5% of total order value will be retained. This shall be payable after 3 years of date of order OR successful commissioning of the project whichever is later.

**ANNEXURE-III: TIME SCHEDULE &  
LIQUIDATED DAMAGES**

**ANNEXURE-III:TIME SCHEDULE & LIQUIDATED DAMAGES**

1.1 Completion time Schedule: Time being the essence of this contract, the consultant shall ensure strictly the completion schedule.

**TENDER STAGE**

**1.1.1 Civil & Structural**

S.No.	Stage of work	Total Time (in weeks) starting from the date of award of work taken as zero '0' date
1.	Structural Analysis and member sizes	Upto 1.5 week
2.	Foundations	Upto 2 weeks
3.	Framing plans of floor	Upto 2 weeks
4.	Slab / beams details/ BOQ / Estimate / measurement sheet	Upto 3 weeks
5.	Balance / Analysis of rates, Technical specifications / Miscellaneous	Upto 4 weeks

**1.1.2 PHE / SERVICES ( Fire Fighting, ETP, Solar Water System etc)**

S.No.	Stage of work	Total Time (in weeks) starting from the date of award of work taken as zero '0' date
1.	Conceptual design and analyzing / study of input data / meeting with consultant	Upto 1 week
2.	Designing & Drawing of services	Upto 2 weeks
3.	BOQ & measurement sheet & Estimate	Upto 2 weeks
4.	Analysis of rates, Technical specifications	Upto 3 weeks
5.	Balance / Miscellaneous	Upto 4 weeks

### 1.1.3 HVAC

S.No.	Stage of work	Total Time (in weeks) starting from the date of award of work taken as zero '0' date
1.	Conceptual design and analyzing / study of input data	Upto 1 week
2.	Designing & Drawing of services	Upto 2 weeks
3.	BOQ & measurement sheet & Estimate	Upto 2 weeks
4.	Analysis of rates, Technical specifications	Upto 3 weeks
5.	Balance / Miscellaneous	Upto 4 weeks

### WORKING STAGE

#### 1.1.4 Civil & Structural

S.No.	Stage of work	Total Time (in weeks) starting from the zero '0' date (presumed as 01 <sup>st</sup> March,2008)
1.	Structural Analysis and member sizes	Upto 2 week
2.	Foundations	Upto 4 weeks
3.	Framing plans of floor	Upto 6 weeks
4.	Slab / beams details	Upto 8 weeks
5.	Balance / Miscellaneous	Upto 10 weeks

### 1.1.5 PHE / SERVICES ( Fire Fighting, ETP, Solar Water System etc)

S.No.	Stage of work	Total Time (in weeks) starting from the zero '0' date (presumed as 01 <sup>st</sup> March,2008)
1.	Conceptual design and analyzing / study of input data	Upto 3 week
2.	Designing & Drawing of services	Upto 6 weeks
3.	Balance / Miscellaneous	Upto 8 weeks

**The agency shall submit first lot of working drawings (50%) within 04 weeks from the award of work, so that work can be started at site.**

1.2 Carrying out all modifications / deletions / additions / alterations in design/drawings/documents as considered necessary for proper execution of the work at site till its completion and satisfactory handing over of the work/project to the client.

1.3 All visits performed by the associate consultant in connection with planning, designing, detailing obtaining approval from HSCC / client / statutory bodies upto the stage of issue of good for construction drawings including conducting 2 additional number of visits during the execution of the project shall be borne by the associate consultant & shall be covered within his fees. However for any additional visits required by HSCC India Ltd. For which necessary permission shall be given in writing during execution of project, the aassociate consultant shall be reimbursed by HSCC India Ltd. @ Rs 2500/- towards fare and stay and local conveyance etc for such visits.

1.4 The associate consultant will give under taking that all designs and drawings, will be prepared and furnished to suit the particular local conditions of the site in the most economical manner and at any stage during the progress of execution of the work, if any defect is noticed in the design and drawings, the Associate Consultant shall provide free of cost to HSCC India Ltd. Fresh design / drawings and other documents within a period of 7 days from the date of notice issued by HSCC India Ltd. In this regard. The Associate Consultant shall also indemnify the HSCC India Ltd. Against any damage / loss / delay suffered by the HSCC India Ltd. Due to such

defective designs, drawings and other documents supplied by the Associate Consultant subject to a maximum of the 10% of the consultancy fee.

#### **1. 5 LD for delay in completion:**

- LD shall be levied upon the consultant in case of delay in fulfilling the obligations under this agreement for causes solely attributable to the agency at 1% (one percent only) of the contract fee per week of delay subject to a maximum of 10% of the total contract fee.
- For computing the LD amount, the period of delay on the part of the consultant shall be worked out by HSCC going strictly by the time schedule mentioned in this order. The agency shall be liable to pay this compensation to HSCC.
- However, no LD shall be levied in case the delay is on account of force majeure or of release of design input to the consultant from HSCC side. In such cases the time schedule shall be reworked & a suitable extension of in time granted for work completion. **NO EXTRA PRICE SHALL BE PAYABLE BY HSCC TO THE CONSULTANT FOR THE DELAYED PERIOD.**

**ANNEXURE- IV: GENERAL CONDITIONS  
OF CONTRACT**

**ANNEXURE- IV: GENERAL CONDITIONS OF CONTRACT & SPECIAL  
CONDITIONS OF CONTRACT**

**Preamble**

M/s Hospital Services Consultancy Corporation (India) Limited i.e.. HSCC is a turnkey consultant in the field of Medical Facilities. The General conditions of Contract are as under :-

**1. Delay And Extension:**

If the work is delayed by force majeure or any other cause which in the absolute discretion of the employer is beyond the agency's control, they shall immediately upon the happening of such event contributing to delays give notice thereof in writing to the employer but shall nevertheless use constantly their best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of HSCC to proceed with the work.

Request for extension of time shall be made by the agency in writing within 7 days of the happening of the event causing delay. The agency shall also indicate with any such request, the period for which extension is required. In any such case HSCC may give a fair and reasonable extension of time for completion of individual items of groups and items of work for which separate period of completion are specified in the contract as a whole, but it shall be the sole discretion of the employer to grant or refuse such extension.

The decision of HSCC in regard to the extension will be communicated to the agency in writing within a reasonable time but no compensation or any extra amount shall be paid for such extensions granted by HSCC.

**RISK PREJUDICE CLAUSES**

**2. Arbitration:**

If at any time any doubt, question, dispute or difference whatsoever, shall arise between the agency and HSCC upon or in relating to or in connection with this contract, either of the parties may give the other notice in writing of the existence of such doubt, question, dispute or difference and the same shall be referred to the Chairman- cum-Managing Director, HSCC or

his nominee as Sole Arbitrator in accordance with the latest Indian Arbitration Act, later amendments, if, any. The decision of the sole arbitrator thereon shall be final, conclusive and binding upon the parties to dispute.

The party invoking arbitration shall specify the dispute or disputes to be referred to the arbitration under the clause together with the amount or amounts claimed in respect of each of dispute.

### **3. Jurisdiction Of Court:**

All disputes arising out of the contract shall have the jurisdiction of courts of the Union Territory of Delhi only.

### **4. Termination Of Contract :**

HSCC reserves the right to terminate, or postpone the work for good and sufficient cause and shall give 30 days prior notice in writing to the agency ( HSCC being sole judge for the same). The agency shall be paid for the useful work done up to the date of termination. HSCC shall determine the credit to be given to the agency for the value of the work executed by the agency. The agency shall give HSCC all the data, compiled report, drawings etc. prepared by them till the date of termination before the final dues are paid to the agency. Even after the termination of agreement, the agency shall continue to cooperate with HSCC to such a reasonable extent as may be necessary to clarify or explain any reports or recommendations in documents or detailing made by them.

### **5. Breach Of Trust:**

Unless otherwise directed by HSCC specifically, the agency shall not contact directly or indirectly the client or any other authorities connected with the project. Non compliance of this clause shall be treated as breach of trust resulting in the termination of contract between HSCC and the agency forthwith without any prior notice to him. In such event, no job will be entrusted to him in future by HSCC.

### **6. Discussions With HSCC And Approvals:**

**6.1 AVAILABILITY:** The agency shall make themselves available at reasonable notice to be present for discussion with HSCC. The agency shall also provide assistance, advice and

information to HSCC as may be required from time to time for discussions with other agencies or HSCC officials connected with the work without any extra claim.

**6.2 FORTNIGHTLY MEETINGS:** The design detailer with his associates will regularly attend the HSCC office for fortnightly meetings on the date specified by HSCC till the completion of the design job in which the progress made in the works will be discussed and clarifications required if any will be given. All cost incidental to such interaction for meetings shall be to the detailer's account and no claim shall be entertained by HSCC on this account (Initially weekly basis till completion of the major works).

**6.3 APPROVAL OF WORK:** The agency shall get approved the work done by him at every stage throughout the period from HSCC. However, such approval by HSCC shall not be deemed to absolve the agency of the total responsibility of the correctness and soundness of the work and other obligations under this contract.

## **7 Guarantee And Liability Of The Agency:**

**7.1 LIABILITY:** The Agency shall be liable for all consequence of errors and omissions arising from errors solely attributable to agency or on the part of their employees to the extent and with the limitation specified by HSCC.

**7.2 ASSOCIATED NECESSARY WORK:** Any other items of work not mentioned specifically in the scope of work but required/felt necessary for the completion of the project as a whole in all respects shall be deemed to be included in the scope as well as in the fee quoted by the detailer and no extra claim shall be admissible on this account.

## **8 Ownership Of Documents & Copy Rights:**

**8.1** The copy right of all drawings, reports, calculations, BOQs, Tender papers and other similar documents provided by the agency in connection with project / work shall remain vested in HSCC.

**8.2** The agency shall not publish without the written consent of employer or use for purpose other than those for this work, the articles, designs, photographs or illustrations, related to this work / project.

## **9 Changes or Alteration of Drawings/Designs/ Arrangement / Scheme Etc.**

Changes or alterations as desired by HSCC due to site considerations or otherwise as required during the pendency of the contract will be done by the agency under their scope of work within the Lump Sum fee already quoted and agreed upon.

## **10 Correctness And Accuracy Of Data :**

The agency shall be full responsible for the correctness and accuracy of the data, planning, designs, drawings, specifications, bills of quantities and documents furnished by them. If any inadequacy is observed in the work performed by them, they shall at their own initiative and at no extra cost to HSCC take all steps necessary to remedy/rectify the said defects or inadequacies. The Detailer shall incorporate all the modification or changes as desired by the HSCC in the drawings, plans and reports, design etc. at no extra cost to HSCC.

## **11 Safety Of Design:**

The agency shall be fully responsible for the safe designs as per national standards and requirements. In the absence of National Standards, the requirement would of International standard. The Structural stability certificate shall be provided by the agency as per format / guidelines of HSCC India Ltd.

## **12 Performance Guarantee:**

The agency shall fully stand guarantee and indemnity the HSCC for the design and detailing done by them as also performance and detailing etc. of the works. Agency shall submit guarantee to HSCC on pro forma approved by HSCC.

## **13 Code Of Practice:**

The report, design and drawings for all works shall conform to local building bye-laws and other state regulation as well as to relevant latest Indian Standard Specifications and/or Standard Code of Practice. Where Indian Standards are not available, equivalent International Standards and/or generally accepted sound engineering practices shall be followed. Deviation from BIS recommendations and adoption of other code of practice will require prior approval of HSCC in writing. All reports, computations, drawings, shall be submitted in English language and in metric/SI units.

#### **14 General Conditions:**

- 1) Agency quoting for the above work shall have in-house professionals for all disciplines or alliance/JV with any other firm. Main architectural work to be done by main agency.
- 2) Agency quoting for the above should have his design office in Delhi/NCR with sufficient professional staff who can take up the work efficiently.
- 3) Consultant shall make visits to site as and when required by HSCC subject to maximum 5 visits. The expenditure against this shall be included in consultancy fees quoted by consultant. However, if more visits are required the expenditure shall be borne by HSCC as per terms and conditions of HSCC.
- 4) Consultant shall submit 3 check prints of each drawing and soft copies. The final prints shall be plotted by HSCC as per requirement.
- 5) The quantities of R.C.C., steel reinforcement, brick work, flooring item and external cladding/finishing shall be submitted along with detailed drawings prepared by consultants.
- 6) The B.O.Q. as already prepared by HSCC which is readily available for reference. These quantities of items should be kept in mind while detailing/designing the buildings. The consultant shall from time to time cross check to examine that the actual quantities computed from his drgs do not exceed the BOQ quantities by more than 5%, particularly for various important items (such as RCC, Brick work, structural work, Earth work, Plaster, flooring etc) of work and 15% for other minor value works.
- 7) The agency shall submit credentials of sub-consultants at least 2 in number who has handled this type of work which will be approved by HSCC. The offer can be rejected if agency is failed to submit the same.

#### **Special Conditions-**

- a. HSCC reserves the right to award the work or to reject all assigning no reasons thereof.
- b. HSCC reserves the right to award the work in full or part or increase the scope of work

# **ANNEXURE V**

## **EXPERIENCE DETAILS**

**Experience of Design and detailed Engineering Design of projects of similar nature & complexity**

(During last three years ending last day of month previous to the one in which applications are invited)

S. No.	Name of the work	Name of the client	Brief description of the work	Date of Start	Date of completion as per contract	Actual Date of completion	Value of work (In lacs)	Supporti document enclosed YES/NO

**NOTE:** Please attach supporting documents (Completion Certificates / order copies) for the above information.

# **ANNEXURE VI**

## **PERSONNEL CAPABILITIES**



**ANNEXURE VII**  
**COMPUTER CAPABILITIES**

**COMPUTER CAPABILITIES**

Si No.	Particulars of Hardware Devices and licensed software details	Quantity	Approximate Value

# **ANNEXURE VIII**

## **FINANCIAL CAPABILITIES**

## FINANCIAL CAPABILITIES

### ANNUAL TURNOVER

Year	Annual Turn Over in Indian Rupees ( or equivalent to Indian Rupees) as per Audited Balance Sheet
2004-05	Rs.
2005-06	Rs
2006-07	Rs
Average Annual Turn over over the past 03 years	Rs

Financial Information in Rs. Equivalent	For Year 2004-05	For Year 2005-0	For Year 2006-07
1. Total Assets			
2. Current Assets			
3. Total Liabilities			
4. Current Liabilities			
5 Profit before tax			
6. Profit after tax			

Note: **The above data is to be supported by audited balance sheets**

1. Attach copies of audited balance sheets for all three years (2004-05, 2005-06, 2006-07)

**ANNEXURE-IX  
(STICKERS)**

**ENVELOPE-1**

**TENDER FOR  
APPOINTMENT OF DESIGN CONSULTANT FOR CIVIL/STR.  
PHE/SERVICES, HVAC WORKS FOR TENDER STAGE & WORKING  
STAGE**

TO,  
SHRI V V GOVINDA RAO, *GENERAL MANAGER (STRUCTURAL)*  
HSCC (INDIA) LIMITED,  
E-6A, SECTOR-1,  
NOIDA-201301

FROM:  
*Tenderer to write his  
complete address here*

**ENVELOPE-2**

**TENDER FOR  
APPOINTMENT OF DESIGN CONSULTANT FOR CIVIL/STR.,  
PHE/SERVICES, HVAC WORKS FOR TENDER STAGE & WORKING  
STAGE**

**COST OF TENDER AND EMD**

FROM:

*Tenderer to write his  
complete address here*

**ENVELOPE-3**

**TENDER FOR  
APPOINTMENT OF DESIGN CONSULTANT FOR CIVIL/STR.,  
PHE/SERVICES HVAC WORKS FOR TENDER STAGE & WORKING  
STAGE**

**PRE QUALIFYING DOCUMENTS**

**FROM:**

***Tenderer to write his  
complete address here***

**ENVELOPE-4**

**TENDER FOR  
APPOINTMENT OF DESIGN CONSULTANT FOR CIVIL/STR.,  
PHE/SERVICES, HVAC WORKS FOR TENDER STAGE & WORKING  
STAGE  
TENDER DOCUMENTS & PRICE BID**

FROM:

*Tenderer to write his  
complete address here*