

**INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,**  
**PATNA-14**

Memo No./38/EC/2021

Dated 11/06/2021

**Short Urgent Tender Notice No.-Engg/04/CW/EW/Tender/21-20**

Sealed offers are hereby invited in two-bid system (Technical & Financial) from reputed and experienced Consultant Consultancy Firms/Company capable of providing comprehensive consultancy services including Civil, Electrical, HVAC, work etc. (preparation of Design, Detailed Project Report, tender documents, cost estimation and supervision) for proposed Post Graduate Institute of Dental Education & Research & Nuclear Medicine Department, IGIMS Patna.

Details of terms and condition and document can be seen & downloaded from our website [www.igims.org](http://www.igims.org).

The last date for the submission of bid is 05/07/2021 upto 4.00 P.M. The Technical bid will be opened on 06/07/2021 at 3.30 P.M.

Sd/-

Director,  
IGIMS, Patna

**INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,**  
**SHEIKHPURA, PATNA – 14**  
**(AN AUTONOMOUS INSTITUTE GOVERNMENT OF BIHAR)**

**TECHNICAL BID SHEET**

**Offer Form**

Experienced Consultancy firms capable for providing Comprehensive Consultancy Services including Civil, Electrical, HVAC work etc (Preparation of Design, detailed project report, tender documents, cost estimation and supervision) for proposed Post Graduate Institute of Dental Education & Research & Nuclear Medicine Department IGIMS, Patna.

**IMPORTANT DATES**

Date of uploading Tender on Website: www.igims.org	:	14/06/2021
Last Date & Time for Submission of tender Document	:	05/07/2021 upto 4.00PM
Date & Time for opening of Technical Bid	:	06/07/2021 at 3:30 PM
Date & Time for opening of Price Bid	:	To be informed to the qualified bidders qualifying after opening of Technical Bids.

**Tender should have following documents :-**

1. Registration No.
2. Annual Turnover during last 3 years certified by Chartered Accountant
3. Company/ firm should not be in loss during last 3 years i.e. up to Financial Year 2018-19 certified by Chartered Accountant.
4. Pan Card.
5. Income Tax Return file of last 2 years.
6. GST Registration.
7. All documents must be notarised by the Public Notary Patna.

## **ROLE OF THE CONSULTANT**

The Consultant shall provide Design and DPR Consultancy Services for Post Graduate Institute of Dental Education & Research & Nuclear Medicine Department IGIMS, Patna.

The Consultants shall be involved right through the entire duration of the project till commissioning/ handing over of the respective buildings. The Consultant shall work out :

- Space requirement
- Services requirement (Area wise)
- Structural system
- Space planning
- Conceptual building plans (Floor Wise) constraining the following:
  - Furniture layout
  - Hospital equipment layout
  - Elevation
  - 3D view/ Arch model and blow-ups of critical areas/ computer walk-through etc.
  - Internal & external finishing details with area chart

The design concept of the Institute is to be based on following considerations:

- Location
- Site
- Region
- Local architecture/ Vernacular Architect
- Weather
- Availability of local construction material etc.

The concept design shall be got approved from the client through presentations. Physical models, computer walk- through etc. Comments and suggestions of the client and his representatives shall be incorporated and presentation made after incorporation till the concept design is accepted and frozen. The consultant shall develop concept drawings for each building for submission to all the statutory authorities/bodies, incorporate changes, if suggested by the statutory authorities/bodies and obtain approvals from the same.

Based on the accepted and approved design, prepare detailed project report (DPR) for the Institute containing, among others, the following:

Introduction and background

Site Characteristics

Detailed cost estimates for civil works (Buildings, Horticulture, Landscaping etc.), internal and external electrification works, HVAC works whatever required by the client.

A tentative list of proposed medical equipment.

Alternate energy sources.

Future expansion programme/ vision document

Preparation of tender drawings/ BOQ/ specifications

Preparation of contract agreement document:

## **SCOPE OF SERVICES**

- 1 The Consultants shall provide design and DPR consultancy services broadly described hereinafter. However, it should be clearly understood that the description of services is only broad and the consultants shall be required to perform any other services which may be required.
- 2 The Consultants shall perform the services in an efficient, orderly and professional manner and shall deploy necessary skilled persons according to the requirement of the services.
- 3 The Consultants shall represent, warrant and agree that in the execution and performance of this project, it will comply with any and all applicable law.
- 4 The Consultants shall comply with the norms of the Medical Council of India (MCI) in connection with the project.
- 5 In case the main office of the Consultants is located outside Patna region, they will maintain a liaison office in Patna for effective rendering of Services.
- 6 All the costs involved while providing the consultancy Services by the Consultants including those to be incurred for obtaining statutory approvals/permissions, clearances etc. are deemed to be included in the lump sum fee. However, statutory payments will be made by the Clients.
- 7 The Consultancy services shall be provided by the Consultant through a Team Leader (a senior professional with extensive experience in providing consultancy services in the development of health sector projects) supported by experienced professionals to deliver the requisite services detailed ( but not limited to) hereunder:
- 8 The building must be designed with consideration of earthquake resistant wind pressure & other parameters.

### **Consultants will provide services, on following areas:-**

- A. Management/ Administration, Services
- B. Architectural services including Bio-medical / Landscaping / Interior Design / Decorator Services / Signage
- C. Quantity surveying services
- D. Civil & Structural Engineering Services
- E. Electrical Engineering Services
- F. IT Services
- G. Public Health Engineering Services
- H. Any other services as appropriate and required

### **A. MANAGEMENT / ADMINISTRATION SERVICES**

1. Master Plan
  - Starting from the concept design, the activities to be carried out are:
  - Development and submission of the Draft concept Master Plan
  - Development of the approved draft master plan after due deliberation with clients. Submission of the Final Master Plan. Graphic representation of plans.
  - Architectural views, elevations, facades, roof, etc.
  - Geometric definition of the structures
  - Situation and definition of building services
  - Definition of materials, equipment, systems and processes characteristic of the architectural design.
  - Obtaining approval of the master plan.

2. Preliminary Design  
The preliminary design will comprise of amongst others, the following:
  - Calculations
  - Drawings
  - Technical Specifications
  - Bill of Quantities
  - Models & Presentations
  
3. Detailed Design  
Detailed design will comprise, amongst other, the following:
  - Calculations
  - Architectural Detailed Drawings
  - Structural Detailed Drawings
  - Services (PHE, Fire-Fighting and Roads etc.)
  - Mechanical & Electrical Detailed Drawings
  - Technical Specifications
  - Bill of Quantities
  - Models & Presentations
  
4. Production Information
  - Tender Drawings
  - Schedules
  - Specifications
  - Bill of Quantities
  - Draft Tender Documents

#### Construction Management

- **Pre-Construction Phase**  
Obtain permits, licenses and approvals from statutory bodies for commencement of work.
- **Construction Phase**
  - Design DPR consultant will initiate activities that will be necessary in the performance of the services in accordance with the Master Plan. In case any change is required in design etc it will be made. Any clarification required by clients/Project Consultant/Contractor on design/drawing matters will also be attended. No additional cost on this account will be admissible.
  - Design and DPR Consultant shall maintain adequate professional staff that will carry out visit of the works and tender advice to client for establishment of the project as and when required.
- **Post-Construction Phase**
  - Conduct inspection after confirmation from the client that the project is practically complete.
  - Prepare a snag list; advise the implementation Agency (S) to make good the defects within a specific period
  - Upon completion of the remedial works, conduct a final inspection together with the client and his representatives.
- **Final Acceptance**
  - After all defective works are made good; certify to the effect that the project is Completed in conformity with the provisions of contract documents
  - Issue Certificate of final Completion

- Submit the required document to the statutory authorities after completion and Obtain NOC for commissioning the Institute.

➤ **As-Built Drawings**

Review As-built drawings prepared by the Implementation Agency (S) prior to final drafting. These shall be incorporated in the original drawings.

**B. ARCHITECTURAL SERVICES**

1. Visit the site and carry out an initial appraisal.
  - Make inspections and prepare reports on the condition of premises
  - Take particulars
  - Prepare a layout
2. Prepare an outline timetable. All activities required for preparation of design and DPR.
3. Develop concept/ design taking into account the site-specific requirements and the amendments suggested by the client; prepare cost estimates.
4. Develop the project design; obtain the client's approval of the type of construction, quality of materials and standard of workmanship.
5. Ensure that the various building engineering services are suitable and economically designed without any discrepancies between the structure and finishes, and finishes, and the requirement of services installation.
6. Ensure that the nature, position and appearance of all controls of piped services and electrical installation satisfy user and aesthetic requirements, and ensure that adequate coordination drawings are included.
7. Develop the landscaping details separately.
8. Develop the interior as per requirement and the type of equipments (S) planned.
9. Obtain information required for statutory applications under planning and building acts and any other statutory requirements.
10. Prepare production information including drawings, schedules and specification of materials and workmanship; bills of quantities etc. in sufficient detail to enable to prepare a tender. The tender drawings & document shall include detailed site plan, buildings plan, elevations, sections, detailed drawings for each building including floor plans, elevations, door & window schedules, finishing schedules, wall profiles, staircases / ramp/ loft details of important building parts/ areas, landscape & horticulture details etc. As far as possible using standards of quality and performance required and descriptive names rather than specific products or brand names.
11. Prepare construction / working drawings. Drawings shall be adequately detailed and shall contain enough information to enable construction, full measurement, pricing and production of bill of quantities. The working drawings shall include
12. Issuing certificates and other administrative deities under the contract.

➤ **Site Plan**

- Co-carination of the proposed building
- Room layout in co-ordination with carious services and levels.
- Blow up road junction / parking area and other such area as required.
- Services layout

➤ **Detailed Building Services**

- Floor plans (fully coordinated with all services / disciplines)

- Elevations
- Sections
- Wall profiles
- Doors & window details
- Stairs / Ramps/ Lifts details
- Details of building parts / Area with special treatment
- Toilet details
- Kitchen laundry / CSSD etc details
- Flooring pattern and details
- Dado details
- False ceiling details
- Details of furniture and equipment layout
- Furniture details
- Signages

➤ **Detailed Building Services**

- Detailed drawings of landscape including blow up of critical area / landscapes / plants capes / detail coordination with all external services
- Horticulture detail

**C. QUANTITY SURVEYING SERVICES**

● **General** The consultant shall provide the following services in relation to the field of quantity surveying. The services to be provided by the Design and DPR Consultant shall comprise of, but no limited to the following:

- **Cost estimating & financial services**
  1. Cost planning for the project, including the cost of associated design services, site development, landscaping furniture and equipment ; cash flow requirements, construction cost, and cost in use etc.
  2. Prepare and submit cost estimates for the project at outline scheme design, preliminary design stage and final design stage.
  3. Prepare a project cash flow for the contract at start of construction and at any time as required by the client.
  4. Prepare complete tender documentation including specifications, detailed Bill of Quantities, Conditions of Contract etc.
  5. Advise on any aspect that can influence the project's cost and measures that can be taken in order to ensure that the budget for the project is not exceeded.
  6. Preparation of contract agreement
  7. Assist Client in finalization and Construction Agency in compliance with normal tender procedures.
  8. Carry out analysis and evaluation of tenders received and thereafter, submit tender reports, draft letter of award.
  9. Prepare and submit contract documents for signature.
  10. Carry out such other duties as may be required of the Project Consultant in the pre contract stage on this project.
  11. Assist the Client in replying queries from audit/internal control department and other committees. Attend meetings in connections when requested to do so by the client and Audit/Internal control departments.

12. Carry out such other duties as may be required by the client in the post-contract stage on this project.

#### **D. CIVIL & STRUCTURAL ENGINEERING SERVICES**

##### **General**

- 1- The Consultant shall perform all the Civil & Structural design work necessary by utilizing the most economical effective and widely accepted engineering concepts.
- 2- The Consultant will be fully responsible for the design of all the Civil & structural engineering works. The services to be provided by the Consultant shall include but not be limited to the following:
  - Planning for the structural arrangements with the architectural design
  - Co-ordination & finalization of arrangements plans
  - Finalization of design basis & structural systems.
  - Roads and footpaths network.

##### **Design Development Stage:**

- Structural framing for Analysis in a structural Analysis software
- Design of beams & columns based on structural Analysis output of the software
- Workout of support reactions for the design of foundations from the structural analysis software
- Design of foundations
- Design of slabs
- Design of staircases / ramps etc.

##### **Drawing Stage**

- Foundation plans & details
- Column layout plans
- Framing plans (fully coordinated with all disciplines)
- Floor slab structural details
  
- Column & beam structural details
- Staircases / ramps / lifts etc. details

##### **Proof Checking of Design**

The design will be proof checked by IIT/ any other agency nominated by client. The payment to proof checking agency is included in the fees for this job under the arrangement of design and DPR consultant. Any codification / suggestion made by proof checking agency will be implemented by consultant at no extra cost.

#### **E. ELECTRICAL ENGINEERING SERVICES**

- The Consultant shall be responsible, amongst others:
- Design of electrical installations including all electrical fittings / fixtures etc., as necessary.
- Power supply & Distribution system (including emergency and backup supply, sub-station etc.)



- PA/ Telephone system, intercom communications facilities.
- Sound diffusion system as necessary.
- Fire detection and Alarm System
- Lifts, escalators, water pumps etc.
- CCTV, Cable TV/ dish antenna system
- Nurses Call System
- Lightning protection and Ear thing system.
- External Lighting
- UPS back up for sensitive / critical equipment.
- Building / Energy Management system controlling all essential services. This system should allow switching of particular areas for e.g. Operation Theatres when not in use. A manual bypass also to be provided which will allow bypassing / overriding the building / Energy management system when necessary.

### **Services**

To carry out basic and detailed designs of electrical power distribution scheme, indoor and outdoor lighting, lightning protection and earthing system of all the buildings in accordance with the relevant Indian regulations. The work shall include, but not limited to the following services:

- Design & drawing of preliminary schemes on the electrical requirement & on the rating of all the apparatus/ Equipments that will be installed in the Building.
- Design and distribution systems and prepare single line diagrams with details of accessories and equipment.
- Specify the details and capacities of HT panels, Transformers, LT panels, standby diesel generators and fuel intake, and to specify the type of supply arrangement for incoming power supply, interlocking arrangement between HT Panel, transformer, LT Panel & DG Sets.
- Make detailed specifications of all electrical items, including outdoor / indoor equipment, essential and non-essential panels, power control centres, capacitor panels and the corresponding bill of quantities for the various items.
- Telephone, Intercom & Communication system.
- Telephone layout and telephone equipment including conduit and accessories layout for the telephone system and any protective devices battery back-up required.
- Design the EPABX Room. Prepare conduit layout of cables and terminals inclusive of a fiber optic or other special data transmission cables for system required.
- Intercom layout & intercom equipments including conduit & accessories layout for intercom system & any protective devices required.
- Investigate the needs of the site in terms of communication facilities and call bells required and to specify same and the corresponding equipment and accessories together with preparation of conduit and accessories layout necessary.
- Prepare the specifications and bills of quantities.
- Sound diffusion system
- Carry out basic and detailed design for the sound diffusion system required and this shall be inclusive of, but not limited to, the following
  - Plan showing the routing of conduit, wiring, position of speakers, central console etc. indicating block diagram of PA system.

- Cable and conduit layout, sound equipment and visual display system together with any protective devices required;
  - Prepare specifications and bills of quantities:
  - Fire Detection & Alarm system
    - Design the FDA control room layout,
    - Prepare working drawings (Floor wise) indicating the zones, location of the
      - Fire alarm sensors, Response indicator, Manual call points, Hooters, their
        - conduits and wiring and location/details of FDA control panels.
- a. Sewerage System**
- \* Calculation or quantity of waste water generated from different sources and design waste water treatment plant and prepare working drawings for internal and external soil/waste disposal systems.
  - \* Approval from statutory and local bodies for waste disposal.
  - \* Prepare specifications and bill of quantities.
- b. Drainage**
- \* design and prepare working drawings for storm water drainage including roof drainage, service area drainage and surface drainage
  - \* Design and prepare working drawings for rain water-harvesting system.
  - \* Obtain approval from statutory and local bodies for drainage connections and rainwater harvesting scheme etc.
  - \* Prepare specifications and bill of quantities.
- c. Fire Fighting & Fire Suppression System**
- \* design and prepare working drawings for internal and external fire protection and suppression system including hydrant, sprinkler system, CO2 flooding system, pressurization system, fire extinguisher system, JG tanks fire pump rooms etc. in line with the statutory requirements.
  - \* Size all equipment required and prepare detailed specifications and bill of quantities.
  - \* Obtain necessary license/ permissions from the statutory/local fire authority/bodies etc. as required, environmental clearance with compliance till the completion of the project.

Signature of Consultant

## **INSTRUCTION TO BIDDERS**

**Technical Bid must contains the following documents without which their tender will not be accepted :-**

- 01- None Refundable D.D. of Rs. 15,000.00 only in favour of Director, IGIMS Patna towards cost of tender documents & Rs.50,000/- towards earnest money & the same will be kept as per performance security.
- 02- Annual Turnover during last 3 years certified by Chartered Accountant
- 03- Company/ firm should not be in loss during last 3 years i.e. up to Financial year 2019-2020 certified by Chartered Accountant.
- 04- Pan Card .
- 05- Income Tax Return file of last 2 years.
- 06- GST Registration.

All documents must be notarised by the Public Notary Patna

## FINANCIAL BID

Over all Rates in % shall be quoted for project supervisions including Construction management service to be provided by the consultant.

Break up Rate in % shall be quoted for work involved in above head to be carried out such as:

No.	Details of Works	Rate in %
1	<b>Layout Plans</b>	
(a)	Preparation of Layout Plans shoeing clearly the locations of different blocks of building reads, pathways and general treatment of open spaces with external services & Development works. Water Supply, Sewerage, Drainage, Roads, Pathways, Street Lighting, Telephone Lines, Fire Hydrants, Green Areas, Tree-Plantation, Fencing and other Street Furnishing.	
(b)	<b>Building Block:</b> Preparation of Tender Documents, Bill of quantity, specification Estimate, Tender drawings, Project Report drawing for complete Architectural, Structural, Electrical, Plumbing Services for building & obtaining quotations from Contractor ? Supplier in different discipline of works with the statutory approved as required.	
(c)	<b>Site Supervision:</b> For intensive supervision at site pertaining to technical aspects including layout of work checking of bill and preparation of progress schedule and billing of works.	

Signature of Consultant

<b>SCHEDULE OF PAYMENT</b>		
No.	Details of Works	Payment in %
1	<b><u>Layout Plans</u></b>	
(a)	Preparation of Layout Plans shoeing clearly the locations of different blocks of building reads, pathways and general treatment of open spaces with external services & Development works. Water Supply, Sewerage, Drainage, Roads, Pathways, Street Lighting, Telephone Lines, Fire Hydrants, Green Areas, Tree-Plantation, Fencing and other Street Furnishing.	90 %
(b)	<b><u>Building Block:</u></b> Preparation of Tender Documents, Bill of quantity, specification Estimate, Tender drawings, Project Report drawing for complete Architectural, Structural, Electrical, Plumbing Services for building & obtaining quotations from Contractor ? Supplier in different discipline of works with the statutory approved as required.	90%
(c)	<b><u>Site Supervision:</u></b> For intensive supervision at site pertaining to technical aspects including layout of work checking of bill and preparation of progress schedule and billing of works.	90 %
(d)	Rest 10% of each work will be paid after satisfactory completion of work.	

**EFFECTINE PAYMENT TO THE CONSULTANT.**

1. The Clients shall make the payment deducting TDS as per the Governmenorms& EMD and Security deposit @10%. The Security will be refunded after successful completion of the project.
2. When the work is executed wholly or in part with old materials or labour or carriage is provided by CLIENTS, the percentage fees shall be calculated as if the work had been executed wholly by the contractor supplying all labour and new materials.
3. The actual cost of the completed works shall included cost of execution of assigned works, referred to in Scope of work and also the cost of equipment & machinery such as Transformers, DG Set, Sub-Station, lifts, air Conditioning Machine, Pumps & Motors, Water & Sewage Treatment Plant, Medical Services Equipment's, furniture, etc., but excluding the cost of land.
4. Any New tax/ applicable GST will be paid extra.

Signature of Consultant