Indian Institute of Technology Bombay

Invites Request for Proposal (RFP) for

Comprehensive Architectural Consultancy Services for the Proposed Central Animal Facility Building at IIT Bombay, Powai, Mumbai-400076

Ref. IITB/DIPS/CAF/AC/01 Dated 2022 Nov 10



RFP Invited by

Dean, Infrastructure Planning and Support (IPS)

Indian Institute of Technology Bombay, Powai, Mumbai 400076.

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	Layout map showing the location

1 Background

1.1 Dates to Remember

1	Intimation date for the invitation of RFP document	2022 November 10
2	Last date for receipt of queries	2022 November 22
3	Pre-bid meeting date (11:30 Hrs, IPS office)	2022 November 22
4	RFP queries Response date	2022 November 29
5	Receipt of RFP Proposals date (up to 15:30 Hrs)	2022 December 15
6	Date of Evaluation of proposals by the committee	2022 December 22

Note: These dates are tentative

1.2 Preamble

Indian Institute of Technology Bombay (IITB) set up by an Act of Parliament, was established in 1958, at Powai, a northern suburb of Mumbai. Today the Institute is recognised as one of the centers of academic excellence in the country. Over the years, there has been dynamic progress at IIT Bombay in all academic and research activities. It is planned to have improvements to keep the Institute at par with the best institutions in the world.

The Dean, Infrastructure Planning and Support (Dean IPS) is entrusted with the creation of new infrastructure, in the IIT Bombay Campus. The infrastructure includes the construction of new buildings in the academic area, hostels for students, staff accommodation of various types, buildings for general facilities, roads, gardens, and playgrounds, along with related utilities such as water supply, and electricity supply for the whole campus.

1.3 Definitions

Unless the context otherwise requires, the following terms whenever used in this document have the following meanings:

- 1. 'IITB' means, Indian Institute of Technology Bombay.
- 2. 'Consultancy Contract' means the Contract signed by the Parties, to which these Conditions of Consultancy Contract are attached, together with all the documents of such signed Contract.
- 3. 'Applicable Law' means the laws and any other instruments having the force of law in India, as they may be issued and in force from time to time.
- 4. 'Engineer-in-charge' means Dean IPS or his successors appointed by IITB for coordinating with agencies connected with project and interacting with consultants.
- 5. 'Dean Infrastructure Planning Support' is authorised by Director IITB to administer this contract.
- 6. 'CAF' means Central Animal Facility and 'BSBE' means Bio Science and Bio Engineering.
- 7. 'Party' means IITB or the Consultant(s), as the case may be, and Parties means both of them.

- 8. 'Services' means the work to be performed by the Consultant pursuant to this Contract.
- 9. 'Personnel' means persons hired by the Consultant(s) or by any Sub-Consultant(s) as employees and assigned to the performance of the Services or any part thereof.
- 10. 'Site' means the whole of the property belonging to IITB on which the Services will need to be performed.
- 11. 'Month' shall mean a calendar month.

1.4 **Brief scope of the work**

The scope of work consists of providing comprehensive Architectural design and drawings, assisting in obtaining statutory approvals, tender document preparation/processing, periodic inspection during execution stage for proposed Central Animal Facility Building at IITB. The proposed building has a total built-up area of 5112 Sqm, in Ground +5 structure, housing Animal Facility in Ground and first floors (with about 1670 sqm BUA) and the remaining floors i.e 2nd to 5th floors for BSBE Department for setting up Bio-School facility. The building will be RCC framed structure with masonry work and other general features as required by the users. The building is located towards Eastern boundary of IITB (perpendicular to TCS shed and East of Latex workshop) and will be constructed after the demolition of the existing old scrap yard and store shed. A layout map indicating the location of the proposed building and master plan to be developed is attached (Refer figures 3 on page 35 and 4 on page 37). The exact area may change depending on the actual site condition.

Eligibility and selection criteria 2

Dean (IPS), on behalf of Director, Indian Institute of Technology Bombay (IITB) requests proposals for the Comprehensive Architectural Consultancy Services for the Proposed Central Animal Facility Building at IIT Bombay, Powai, Mumbai-400076 from the empanelled Architectural Consultants in accordance with the terms and conditions as set out below.

Consolidated Honorarium of Rs. 100000/- (Rupees Lakh only) shall be paid to all the participants who submit their Conceptual design and participate in the presentation and secure qualifying marks in technical evaluation.

2.1 **Objectives and method of the selection**

The objective is to select best Architect and engineering design proposal for the proposed work based on the highest composite score (Technical and Financial) and enter into an agreement with the winning architect for comprehensive architectural consultancy for the subject work.

2.2 **Important information**

RFP document duly completed in all respect to be submitted in hard copy to Dean (IPS) office, 1st Floor, Main Building, Indian Institute of Technology Bombay (IITB), Powai, Mumbai 400076.For any query/information, below mentioned email addresses are to be used for communication purpose: E-mail: dean.ips@iitb.ac.in with a copy to po.ips@iitb.ac.in and dean.ips.office@iitb.ac.in

Intimation regarding the invitation of RFP shall be forwarded to the empanelled architects by e-mail and a link shall be provided for downloading the RFP document from the official website of IITB.

Agencies participating in the competition are required to familiarise themselves with the site conditions and study the design inputs given in this document. Queries, if any,related to this RFP must be submitted via e-mail or in writing to Dean (IPS) office, IITB by dates mentioned in section 1.1. No additional queries addressed after this date shall be entertained. A response addendum listing all queries received and IITB's response will be posted on IITB website (https://www.iitb.ac.in/deanpl/tender.html).

2.3 **Deliverables with RFP**

The agencies shall submit the following deliverables along with the Conceptual design on the due date:

- 1. Part Master plan showing proposed locations and general disposition of Central Animal Facility Building and other existing buildings including traffic pattern, services etc.
- 2. Design-based report
- 3. Conceptual design and drawings (Architectural, Structural and location)
- 4. Walk around animation
- 5. Cost estimates (Broad-based)
- 6. Proposed brief specifications

2.4 Selection Process Requirements

Applicants shall submit their duly completed proposals (hard copy/digital format) in response to RFP, so as to reach Dean(IPS) office, IITB on or before dates mentioned in section 1.1 at the following address:

Dean (IPS), 1st Floor, Main Building, Indian Institute of Technology Bombay, Powai, Mumbai 400 076.

The Concept Design, Technical and Financial proposals for the work shall be placed in three separate envelopes, and clearly written respectively as follows:

- (1) Concept Design Proposal
- (2) Technical Proposal (with the name of the building)
- (3) Financial Proposal (with the name of the building)

The envelopes (2) and (3) shall thereafter be placed in one sealed envelope clearly superscribed on each of the envelopes as Comprehensive Architectural Consultancy Services for the Proposed Central Animal Facility Building at IIT Bombay, Powai, Mumbai-400076 with the name of the applicant and contact details written thereof.

2.5 **Design consideration**

- 1. The consultants are required to provide the concept design for the proposed building on the specified location and plot size marked on the enclosed master plan (Refer figures 3 on page 35 and 4 on page 37).
- 2. The break-up areas specified are for reference only and the consultants are encouraged to develop and demonstrate design that optimises the room areas, circulation and common space areas.
- 3. The consultants are free to explore various structures system suited to their Architectural design.
- 4. The consultants are requested to adhere to National Building code and local body by laws for providing number of Urinals, baths, WCs, provision of toilets for differently able persons, fire safety norms etc.
- 5. The concept design shall conform to green building norms of minimum GRIHA 3 rating. Any measures suggested by IITB to get a higher rating shall be incorporated by the consultant.
- 6. The consultant has to demonstrate that the preliminary estimated cost of the building based on DPAR 2021 of CPWD enhanced with the cost index of Mumbai for the proposed concept design is within +5 percent of the cost provided for the building in the RFP i.e. about Rs. 30.00 Cr. (including Civil+MEP but excluding GST))

- 7. The Concept Design proposal should demonstrate that the proposer has developed an understanding of the institute's requirements with reference to the scope of services mentioned in the RFP document. The applicant shall submit a Power point presentation including the entire contents of the technical proposal in a USB drive along with a submission package for the technical proposal. All drawings, designs, and layouts must be submitted in (.dwg) and (.pdf) format.
- 8. The Concept design proposal should include the following points: (To be submitted in **Envelope** 1):
 - (a) Master plan for the development of proposed construction of Central Animal Facility Building including future buildings and all other existing structures and services within the land parcel marked in the enclosed sketch.
 - (b) The drawings covering the concept proposal for the proposed construction of Central Animal Facility Building, a maximum of three A0 size drawing panels covering the design proposal for each building. There shall be maximum of 2(two) such drawings.
 - (c) The concept of Architectural design should be explained in the form of drawings, sketches with plans, sections, layout at a suitable scale, notes and views to show the Architectural character of the building.
 - (d) USB drives containing soft copies of the design proposals(all drawings in high-resolution PDF format).
 - (e) Signed copy of RFP document and corrigendum/addendum, replies of Pre-bid queries, if any (Each page signed and stamped) by the consultant as proof of acceptance of all terms and conditions of the selection process.
 - (f) A brief introduction about the Lead architects of firms proposed to work on this project (not exceeding 5 pages).
 - (g) Approach to design including drawings, sketches, diagrams and any other information that can concisely and yet comprehensively explain the applicants concept psychology and design approach.
 - (h) Key professionals and consultants proposed to be deployed for the project with their experience and details (not exceeding 10 pages).

Evaluation of the proposal

The applicant is expected to make a presentation to the Evaluation Committee (constituted by the Institute). The Concept Design would be evaluated by the Evaluation Committee on the following broad parameters and any other factors that affect the quality:

- 1. Methodology
- 2. Aesthetics
- 3. Functional Suitability
- 4. Cost Effective Design
- 5. Amenability to Green norms

The Concept Designs submitted by the applicants will be reviewed and evaluated by a committee formed and constituted by IITB Director.

The Concept Design proposal shall be allotted weightage of 80 % (Eighty percent) as a quality score while the financial proposals will be allotted weightage of 20 % (Twenty percent) as a cost score. Based on the evaluation criteria specified under the technical proposal, the Evaluation committee shall evaluate the detailed technical proposals separately and award the technical score (TS) and list them in order of merit. Proposals with the highest technical marks (as allotted by the evaluation committee) shall be given a score of 100 (Hundred) and other proposals to be given a technical score that is proportional to their marks with respect to the highest technical marks. Depending upon the marks obtained in the technical evaluation of the RFP, a merit list shall be generated of the applicants as T1, T2, T3 of the participants who score 75 % or more.

Please note that for the participants who scored 75 % and above, their financial proposals only will be opened. The discretion and decision of the Evaluation committee in respect of technical scores shall be final and binding on all without any Right to appeal. The technical scores (TS) of the applicants shall be announced before the opening of financial bids.

Financial proposals shall be opened in presence of the consultants or their representatives who choose to attend. Proposals with the lowest cost may be given a financial score of 100 (Hundred) and the other proposals are given financial scores that are inversely proportional to their prices with respect to the lowest offer.

The total score, both technical and financial, shall be obtained by weighing the quality and cost scores and adding them up. On the basis of the combined weighted score for quality and cost, the consultant shall be ranked in terms of the total score obtained. The proposal obtaining the highest total combined score in the evaluation of quality and cost will be ranked as H-1 followed by the proposals securing lesser marks as H-2, H-3, etc. The proposal securing the highest combined marks shall be recommended for the award of contract. In the event two or more bids have the same score in the final ranking, the bid with highest technical score will be H-1.

An Evaluated Bid Score (B) will be calculated for each responsive Bid using the following formula, which permits a comprehensive assessment of the Bid price and the technical merits of each Bid:

$$B = \frac{F_{Low}}{F}W + \frac{T}{T_{High}}(1 - W) \tag{1}$$

Where, F is the Evaluated Bid price, F_{Low} is the lowest of all Evaluated Bid Prices among responsive Bids, T is the total Technical Score awarded to the Bid, T_{High} is the Technical Score achieved by the Bid that was scored best among all responsive Bids, and W is the Weightage for the Price as specified

The Bid with the best-evaluated Bid score (B) among responsive Bids shall be the Most Advantageous Bid.

The following procedure shall be followed. In a particular case of selection of consultant, it was decided to have minimum qualifying marks for technical qualifications as 70 (Seventy) and the weightage of technical bids and financial bids was kept as 80:20 (Eighty: Twenty). In response to the RFP, three proposals, A, B and C were received. The technical evaluation committee awarded the following marks as under: A: 75 Marks, B: 80 Marks, and C: 90 Marks

The minimum qualifying marks were 70 (Seventy) thus, all the three proposals were found technically suitable. Using the formula T/T_{High} , the following technical points are awarded by the evaluation committee: A: 75/90 = 83 points, B: 80/90 = 89 points, and C: 90/90 = 100 points

The financial proposals of each qualified consultant were opened after notifying the date and time

of bid opening. The price evaluation committee examined the financial proposals and evaluated the quoted prices as under: A: Rs. 120, B: Rs. 100, and C: Rs. 110.

Using the formula F_{Low}/F , the committee gave them the following points for financial proposals: A: 100/120 = 83 points, B: 100/100 = 100 points, and C: 100/110 = 91 points.

In the combined evaluation, thereafter, the evaluation committee calculated the combined technical and financial score as under: Proposal A: 83*0.20 + 83*0.80 = 83 points, Proposal B: 100*0.20 +89*0.80 = 91.20 points, and Proposal C: 91*0.20 + 100*0.80 = 98.20 points.

The three proposals in the combined technical and financial evaluation were ranked as under: Proposal A: 83 points H-3; Proposal B: 91.20 points H-2; and Proposal C: 98.20 points H-1

Proposal C at the evaluated cost of Rs. 110 (Rs. One hundred ten) was, therefore declared as the winner and recommended for negotiations/approval, to the competent authority.

2.7 Acceptance of the concept design

The Concept Design as submitted by the successful applicant may not be deemed to be the final acceptable design proposal. The consultant must meet and discuss with the institute's User committee/ Users and provide comprehensive architectural services as per the scope of work after duly understanding the requirements of the institute. The actual location for the construction of the proposed building may change depending on the requirement of the institute.

2.8 **Award of contract**

- 1. The selection as mentioned above, does not, in any way, automatically confer any right, whatsoever, on any applicant for an award of work.
- 2. Winning Architect, even though selected based on the quality evaluation of his concept design shall be contractually obliged to modify or redesign if found necessary by IITB.
- 3. IITB shall inform consultants through a 'Letter of Acceptance of Offer' by email/Letter that it has been selected to be the consultant for the institute to the extent.
- 4. The consultant shall thereafter sign the contract agreement within 21 days of the issue of such letter.
- 5. In the event of the consultant getting selected for the Consultancy work, the consultant will have to deposit an amount equal to 5 % of the offered and accepted value of the contract as a Performance Guarantee in the form of an Account payee Demand draft/Fixed Deposit Receipt or in the form of Bank Guarantee from Scheduled commercial bank.
- 6. The amount kept under the performance guarantee shall not bear interest and the same shall be returned to the consultant after satisfactory completion of the contract.
- 7. IITB does not bind itself to award the consultancy work to the selected architect/firm and IITB reserves the right to reject all the offers and no reason for this effect shall be furnished.

2.9 **General guidelines**

1. Each proposal whether layouts or services system or policy or any other, must be duly supported by clearly referenced data presented in a logical and quantifiable format.

- 2. All proposals must be based on clearly referenced global best practices and technologies, and must respect clearly identified and listed local constraints, resources and skills.
- 3. The institute reserves the right to seek more details regarding the proof of qualifications, experience and capabilities of the key personnel.
- 4. The institute reserves the right to issue corrigenda and addenda to this RFP document which shall be binding on all applicants.
- 5. The institute reserves the right to amend, alter, modify, add and/or delete in part or full any requirements or terms and conditions contained in the RFP document at any other time during the selection process, which shall be binding on all applicants.
- 6. All dates, places and time are subject to change and the latest information and clarifications, if any, shall be communicated to the applicants over email.
- 7. The documents and other information provided by IITB or all intellectual property rights of the scheme and proposals submitted during the process of selection submitted by the applicants to IITB shall remain or become the property of the institute.
- 8. No explanation and/or justification in any aspect relating to the selection process shall be given, and the decision of the institute shall be final and binding on all without any right to appeal.
- 9. The institute reserves the right to debar the applicant/terminate the agreement with the final applicant selected for award of work, at any period of time, should any of the document/certificates as submitted be found to be fabricated or false, or a material misrepresentation is made or discovered, or the applicant does not provide the requisite information as required by the institute within the stipulated period.
- 10. All provisions in this document are supplementary and complementary to each other and are not to be read in isolation.

General conditions of consultancy contract 3

The General Conditions of Contract (GCC) are enclosed along with the following sections:

- A: Description of Services (see section 3.6 and 3.7).
- B: Deliverables by the Consultant (see section 3.8).
- C: Guarantee for Performance of Services (see section 3.9).

3.1 **General Provisions**

3.1.1 Law Governing the Contract

This Contract, its meaning and interpretation, and the relation between the Parties will be governed by the Applicable Law and the jurisdiction shall be Mumbai.

3.1.2 Notices

Any notice, request, or consent required or permitted to be given or made pursuant to this Contract shall be in writing and shall be deemed to have been given or made when delivered in person to an authorised representative of the Party to whom the communication is addressed, or when sent by speed-post or facsimile to such Party at the address

For IITB: Dean (IPS), Indian Institute of Technology Bombay, 1st floor, Main Building, Powai, Mumbai- 400076.

For ARCHITECTS: Notice will deem to be effective as follows: (i) In the case of personal delivery or registered mail, on delivery. (ii) In the case of Facsimiles, 24 hours following confirmed transmission.

3.1.3 Authorised Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by IITB or the Consultants may be taken or executed by the officials specified as under: (i) For IITB: Dean (IPS) and (ii) For the Consultant: Person duly authorized by the consultant.

Taxes and Duties 3.1.4

The Consultant shall pay all taxes (other than GST), duties, fees and other impositions as may be levied under the applicable law, the amount of which is deemed to have been included in the fees. GST shall be paid by IITB to the consultant, if applicable.

3.2 Commencement, completion, modification and termination

3.2.1 **Effectiveness of Contract**

This Consultancy Contract shall come into effect on the 15 days after the issue of work order. The Consultant getting selected for the consultancy work will have to provide a Performance Guarantee as detailed below:

3.2.2 Performance Guarantee

An amount equal to 5 % of the offered and accepted value of the contract shall be deposited as a Performance Guarantee in the form of an Account payee Demand draft/Fixed Deposit Receipt or in the form of a Bank Guarantee from a Scheduled commercial bank. The Performance Guarantee shall be refunded to the consultant soon after the completion of the work and recording of the completion certificate. The amount kept under the performance guarantee shall not bear interest and the same shall be returned to the consultant after satisfactory completion of the contract.

3.2.3 **Commencement of Services**

The Consultant shall begin carrying out the Services at the end of such time period after the Effective Date as 15 days from the date of the contract signed.

3.2.4 **Expiration of the Consultancy Contract**

Unless terminated earlier pursuant to Clause 3.2.5 hereof, this Contract shall expire when the Services have been completed in all respect at the end of such time period after the Effective Date, which may be suitably extended upon mutual agreement to complete the Assignment in all respects.

3.2.5 Termination

A. By IITB The IITB may terminate this Consultancy Contract, by serving not less than thirty (30) days written notice of termination to the Consultant, to be given after the occurrence of any of the events specified in paragraphs (1) through (4) of this Clause 3.2.5A and sixty (60) days in the case of the event referred to in (5) below.

- 1. If the Consultant fails to remedy a failure in the performance of their obligations under the Contract within fifteen (15) days of receipt after being notified or within the such further period as IITB may have subsequently approved in writing;
- 2. If the Consultant becomes insolvent or bankrupt or enters into any agreements with their creditors for relief of debt or takes- advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;
- 3. If the Consultant submits to IITB a statement that has a material effect on the rights, obligation, or interests of IITB and which the consultants know to be false.
- 4. If, as the result of Force Majeure, the Design Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- 5. If IITB in its sole discretion and for any reasons whatsoever decides to terminate this Contract.

B: By the Consultant The Consultant may, by not less than thirty (30) days written notice to IITB, such notice to be given after the occurrence of any of the events specified in paragraphs (1) and (2) below, terminate this Consultancy Contract:

1. If IITB fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause 3.2.6 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue;

2. If, as a result of Force Majeure, the Design Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) days.

3.2.6 Payment upon Termination

- 1. Upon termination of this Contract pursuant to Clause 3.2.5.A or Clause 3.2.5.B hereof, IITB shall make the payment to the Consultant (after offsetting against these payments any amount that may be due from the Consultant to IITB) i.e., for the stage of work performed upto the date of termination.
- 2. IITB shall not be liable to pay any bonus, damage, or other claims of the Consultant for the loss of expected profit or interest in uncompleted portions of the work and services.
- 3. In the event of termination of Contract, after receipt of full payment of sums mentioned in 1 and 2 above, from IITB to the satisfaction of the Consultant, the Consultant shall furnish to all the design, drawings, data, documents and details as per the work completed and being paid for in clause 3.2.6.

Dispute Settlement Mechanism

Amicable settlement of Disputes: The parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this contract or the interpretation thereof.

Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt of a notice by one Party, the request for such amicable settlement may be submitted by either Party for settlement in accordance with the following provisions:

Any dispute or difference at any time arising between IITB and the Consultant as to the construction, meaning or effect of the Contract or as to any clause, matter or thing herein contained or as to the rights and liabilities of the parties hereto shall be referred to a Sole Arbitrator to be appointed by the Chairman, Board of Governors, IITB, who shall decide the case in accordance with the contract provisions and subject to the provisions of the Indian Arbitration and Reconciliation Act, 1996 or any statutory modifications or re-enactment thereto or thereof for the time being in force and all proceedings in any such Arbitration shall be held in Mumbai.

3.2.8 Fairness and Good Faith

1. Good Faith:

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realisation of the objectives of this Contract.

2. Operation of the Contract:

The Parties recognise that it is impractical in this Contract to provide for every contingency which may arise during the currency of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause above.

Obligations of the consultant 3.3

3.3.1 General

Standard of Performance: The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to IITB, and shall at all times support and safeguard IITB's legitimate interests in any dealings with Sub-Consultants or Third Parties.

- 1. Design Base: Specific attention has to be paid to ensuring flawless, technically sound, sustainable design provisions. Minute attention shall be paid to providing a maintenance-free robust structure, free from the adverse effect of changes in weather and maintenance issues like leakage of water, fragile components, etc. Specific write up shall be provided by the Architects towards these goals. Architect should assume professional responsibility for any defective design provisions.
- 2. Duties shall include performance of all the Architects stages enumerated in stages of work.
- 3. Making visits by Principal Architect or his/her competent representative to site and IITB office as required till finalisation from Stage 1 to 4. Similarly, regular site visits during stage 6 for inspection and Progress Review Meetings with a frequency not less than one a week.
- 4. Visit of Structural designer for pre-concreting inspection of all major pours and site visit of other MEP designers and Animal Facility Consultant for clearances as and when felt necessary by IITB

3.3.2 Confidentiality

The Consultant, and the Personnel or either of them shall not disclose any information and data furnished to him by to any third party nor shall disclose any drawings, reports, specification, manuals and other information developed and prepared for IITB by the Consultant and his Sub-Consultants and the Personnel or either of them, without prior written approval of IITB.

Design Consultant's Actions requiring prior approval

The Consultant shall obtain IITB's prior approval in writing before entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of the sub-consultant other than those coming under the main contract and the terms and conditions of the subcontract shall have been approved in writing by the prior to the execution of the subcontract, and (ii) that the Consultant shall remain fully liable for the performance of the Services by the sub-consultant and its personnel pursuant to this Contract.

3.3.4 Reporting Obligations

The Consultant shall submit to IITB the reports, documents, digital models and other deliverables, in the form, in the number, and within the time periods set forth in the technical conditions.

3.3.5 Copyright

Copyright conditions shall be as per the prevailing law and Council of Architecture norms 2014. (Clause 12 of Comprehensive Architectural Services).

3.3.6 **Responsibility for Data and Designs**

- 1. The final responsibility for the correctness, adequacy and accuracy of the designs, drawings, technical specifications, etc. furnished by the Consultant, shall lie with the Consultant. The Consultant shall ensure that all designs and services rendered by him, under this Agreement, are in compliance with the existing statutory regulations of bodies.
- 2. To submit all required drawings / documents /area calculations statement undertaking at various stages to liaisioning consultant to obtain completion/occupancy certificate, CFO, Tree permissions, GRIHA etc.
- 3. Periodic visits to the project site for inspection of works and regular visits to IITB office to attend Project Review Meetings.

3.4 **Obligations of IITB**

3.4.1 Assistance and Exemptions

The IITB shall:

- 1. provide the Consultant, Sub-consultant and Personnel with work permits, pertinent data and such other documents as shall be necessary to enable the Consultant, Sub-consultant or Personnel to perform the Services;
- 2. issue to officials, agents and representatives of IITB all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services;
- 3. give decisions on all matters laid before IITB by the Consultant in such a reasonable time as not to delay the work of the Consultant.

3.4.2 Payment

- 1. In consideration of the Services performed by the Consultant under this Contract, IITB shall make to the Consultant such payments and in such manner as is provided by Milestone of deliverables for Payments.
- 2. GST will be paid by IITB to the consultant as per applicable law.

3.5 Payments to the consultant

3.5.1 Fees

The fees for the Services payable are set forth in the Financial Bid.

3.5.2 Mode of Billing and Payment

Billing and payments in respect of the Services shall be made as follows:

- 1. The payment to the Consultant will be made periodically as per the schedule of payment agreed upon in the Financial Bid: Milestones for payment of Consultancy Charges. The Consultant shall submit his bill in triplicate along with supporting documents. IITB shall cause the payment to the Consultant to the amount indicated in the bill within thirty (30) days of receipt of the bill.
- 2. The final payment under this Contract shall be made only after the final report and a final statement identified as such shall have been submitted by the Consultant and approved as satisfactory by the Engineer-in-charge. The Services shall be deemed completed and finally accepted by the Engineer-in-charge and the final report and final statement shall be deemed approved by IITB as satisfactory ninety (90) days after receipt of the final report and final statement by IITB unless IITB, within such ninety (90) day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final statement. The Consultant shall thereupon promptly make any necessary corrections, and upon completion of such corrections, the foregoing process shall be repeated.

Terms and conditions of payment

Payments will be made to the account of the Consultant and according to the payment schedule stated in the Milestones of deliverables for Payments of Financial Bid.

3.6 A: Description of the services

3.6.1 Scope of work

Detailed scope of work for the consultancy shall be as follows. The detailed scope of work shall include and not limited to the following.

The complete design of the building includes a Detailed Survey, Geo Technical soil investigation, Master plan for the development of Central Animal Facility Building including future buildings and all other existing structures and services within the land parcel marked in the attached layout map. (Refer figures 3 on page 35 and 4 on page 37). Architectural design inclding Animal Facility areas, Structural design, Sanitary, plumbing, drainage, water supply, and sewerage design, Electrical, electronic, communication systems and design, Heating, ventilation and air conditioning design (HVAC) and other mechanical systems, Elevators, escalators, and allied fields such as Landscape Architecture, Interior Architecture, Graphic Design, and Signage etc. It includes examining site constraints and potential and preparing a design brief for approval. A Master plan for the immediate surroundings shall be prepared showing all facilities like water supply, sewage, landscaping, drainage, roads, footpaths, power supply distribution, lighting, Air-conditioning, Acoustics, Interior architecture and landscaping, preparation of BIM models at desired detail, and preparation of preliminary and detailed working drawings, submission of BOQ, cost estimate which will conform to Schedule of Rate of either CPWD or State PWD and reference shall be furnished. In case of the market rate for a non-scheduled item, detailed specifications, etc., for the entire scope of work as a combined work or as individual items shall be submitted. All Rate Analysis shall be submitted along with a detailed estimate for these items. The scope of work includes the s preparation of tender documents and issue of tender drawings. The stages of work are also mentioned herein as under:

- 1. Concept Stage: Master plan, Conceptual Architectural drawings for civil works including Animal Facility areas, Landscaping and Interior Architecture, Preliminary Architectural Design Basis Report which includes Animal facility and preliminary cost estimate on area basis.
- 2. Preliminary Design and Drawings stage: Modify and finalize the conceptual drawings incorporating the changes after discussions with the client, detailed Site survey including tree demarcation, contours, existing features etc., complete as required for design and execution, Geo-technical soil investigation as required for structural design, submission of design basis report for structure, MEP services, animal facility and landscape and revised preliminary cost estimate on an area basis. Develop LOD 200 BIM model incorporating the above said features to facilitate coordinated conceptual design.
- 3. Statutory Approval stage / Design development Stage: Preparation and submission of drawing/ documents/ area statements, etc., to liaison architect for statutory approvals from BMC, CFO, and TA. Submission of revised Design basis report for Structure, MEP services, Animal Facility and Landscape, submission of Proof checking drawings and documents of Structural and HVAC design to Proof checking Consultant and Registration for GRIHA.
- 4. Working drawings up to Tender document stage: Tender document preparation and Process and assisting in obtaining statutory approvals Detailed design and detailed estimates of Civil, MEP Services and special requirements of Animal Facility supported with measurement sheets, cost estimate based on CPWD latest DSR for scheduled items and market rates for non-scheduled items with quotations and rate analysis. Development of LOD 350 coordinated clash-free BIM models to enable development of documents and drawings mentioned in this section. Submission of revised Proof checking documents and drawings incorporating all the revisions as per Proof checking Consultants for Structure and HVAC, detailed coordinated design and detailed item-wise estimates of cost for civil and all services of each facility with rate analysis wherever necessary.
- 5. Preparation of tender documents and drawings: Preparation of Tender documents and drawings for tender purpose including conditions of contract, specification, schedule of quantities and rates, Tender processing from sale of tender document to finalisation, preparing comparative statements for tender finalisation, contract agreements, preparation and submission of all Good for Construction (GFC) drawings including Architectural, Structural, MEP Services and Animal Facility drawings. Notification to GRIHA for site inspection prior to construction.

6. Contract Finalisation and Construction Stage:

- (a) Issue of good for construction drawings for Civil works and other associated services such as public health, Electrical, HVAC, Animal Facility, site development, etc. with minor revisions, if any.
- (b) Periodic inspection of work during execution at required intervals mutually agreed upon.
- (c) Approve samples of various elements and components.
- (d) Check and approve shop drawings submitted by the contractor/vendors.
- (e) (*) Certification for Intermediate work done as per RA bills, Final bills of the Contractors in coordination with the Construction Supervision Agency to be appointed by the client separately.
- (f) Monitor the estimated quantities for Variation and justification for additional expenses if any.

Note: If the scope of work marked (*) is not assigned, then reduction in the fee shall be applicable as per financial bid.

7. Completion stage

- (a) Certification of final Contractor's bills in coordination with the Construction Supervision Agency, Submission of 'As built' drawings for completion, and assisting in obtaining Final Statutory Clearance from BMC, Chief Fire Officer, Tree Authority including documents for occupation and certification from GRIHA.
- (b) Providing adequate periodic supervision to all the works such as Architectural, Structural, Public health, Electrical, HVAC, Animal Facility works, Landscaping, etc., and the degree of such supervision commensurate with the nature and magnitude of works.
- (c) Advising IITB on any other technical matter connected with the Construction of the said building or the installation of fitting, which may be entrusted to the Consultant, as may be required by the Institute from time to time.
- (d) Issuance of certificate of virtual completion of works after getting the entire work approved by the Institute. Updated As-Built LOD 350 BIM model along with as-built drawings in appropriate digital format to be submitted to IIT.
- (e) Indicating the defects in the work, if any, for prompt rectification by the Contractor during the construction and defect liability periods.
- (f) Rendering generally, as such, by the Consultant all technical services as specified in the Contract of the said building or the said installation of the fitting entrusted to the Consultant by IITB.
- (g) The Consultant shall appoint the Services Consultant, within his scope for the services like Public Health works, Sanitary and Plumbing works, Electrical works, HVAC, Site development, and Landscaping, besides other services as specified in the Contract. The specialist Animal Facility consultant shall be engaged right from providing conceptual design of Animal Facility to completion of construction. One of the specialist Animal facility consultant listed in section 3.7.11 shall be engaged for the purpose with prior approval of IITB.
- (h) The Consultant agrees to perform his duties as Architect under these Presents promptly and diligently and to do everything in his power and authority to coordinate with the Construction Supervision Agency to ensure that the Contractor/Contractors complete the construction of the building and of installation of such fitting as may be entrusted to them according to the proper quality, specification and schedule of time given to them and that no unnecessary delay is caused by reason of the Consultants not furnishing decisions, details in regard to designs etc. to the Contractor, provided that such delay is not caused by IITB.
- (i) Preparation of As-built drawings for entire work including in BIM LOD 350.

3.6.2 Note

- 1. Prior to approval of BOQ, Cost of work and its scope shall be obtained before engaging the agency for Detail survey and Geo-Technical soil investigation. The contract cost involved shall be reimbursed by on submission of reports, drawings and original documents of payment, etc.
- 2. Proof checking of structural design to be carried out with directly contacting the concerned department authorities. Fees paid to proof checking shall be reimbursed by IITB on submission of original documents of clearance and fees paid.

3. Obtaining GRIHA certification will be the scope of Architect's work inclusive of all expenditure towards obtaining certification. However fees payable to GRIHA shall be reimbursed on submission of original documents and the fees paid.

Services required to be provided by the architect consultant 3.7

3.7.1 Architectural System

- 1. Master plan for the development of Central Animal Facility Building including future buildings and all other existing structures and services within the land parcel marked in the attached layout map. (Refer figures 3 on page 35 and 4 on page 37). Preparation of preliminary conceptual drawings which includes preparation of various floor plans including Animal Facility floors, sections, elevations, perspectives etc., and Preliminary cost Estimates based on areas including Landscape and Interior Architecture Services.
- 2. Incorporation of revisions, and comments offered by IITB
- 3. Preparation and submission of Municipal drawings to IITB's Liaison architect for obtaining Clearance /No Objection from State/Central Statutory Authorities for commencement of work.
- 4. Registration with GRIHA and obtaining GRIHA rating (inclusive of all expenses. Fees paid for registration paid shall be reimbursed)

3.7.2 Detailed Survey and Geo-Technical Soil Investigation

- 1. Detailed site survey including tree demarcation, existing features, contours etc complete required for Design and Execution.
- 2. Geo Technical Soil investigation as required for structural design
- 3. Note: Prior approval for the investigation parameters Cost of work and its scope shall be obtained before engaging the agency for detailed site survey and Geo-Technical soil investigation. The contract cost involved shall be reimbursed by on submission of reports, drawings and original documents of payment, etc.

3.7.3 Structural System

- 1. Preparation of DBRs (Design Basis Report), detailed structural analysis of the total building, detailed design as per relevant Indian codes of practice of recent revisions, and submission for review and approval. On approval of the design details, detailed construction drawings shall be prepared and submitted.
- 2. Proof checking of structural design to be carried out with directly contacting the concerned authorities of IITB or prior approval should be taken from IITB for engagement of the experts outside IITB for carrying out proof checking.
- 3. Note: Fees paid to proof checking shall be reimbursed by on submission of Original documents of clearance and fees paid.

3.7.4 Public Health Engineering System

Scope includes Preparation of DBR's for providing both internal and external water supply and sewage system, storm water dispersal and rain water harvesting system, etc., for the said buildings. Detailed DBR's shall be submitted for review and approval. Entire design shall be as per latest IS code provisions.

3.7.5 Electrical System

Scheme for Preparation of DBR's, providing internal and external electrification system with necessary electrical rooms, cabling, power supply network including sub-station, street lighting etc., scope of work also includes preparation of conduit layouts for provision of telephone, computer cable, LAN, TV etc. Detailed DBR's shall be submitted for review and approval. Entire design shall be as per latest IS codal provisions and recommended Manufacturers.

3.7.6 Fire Fighting System

Scheme for fire-fighting system shall be as per relevant Indian Standards and as per the statutory authorities requirements. Detailed DBR's shall be submitted for review and approval by IITB

HVAC and other mechanical works 3.7.7

Scheme for the HVAC shall be as per Client's requirement and as per relevant IS including HVAC proof checking. This has to be carried out by directly contacting the concerned department. Authorities of IITB or prior approval should be taken from IITB for engagement of the experts outside IITB for carrying out proof checking. Note: Fees paid to proof checking shall be reimbursed by on submission of Original documents of clearance and fees paid.

3.7.8 Animal facility floors

Design Based report, conceptual design of floor, detailed design, schematic and detailed design of all utilities/ services like Electrical, HVAC, PHE, design of clean room facility, waste disposal scheme, preparation of BOQ and specification for tendering and GFC drawings etc.

3.7.9 **Interior Architecture**

Scheme for Design of fixed and loose furniture and interior related civil works shall be as per the Clients requirements. Detailed DBR's shall be submitted for review and approval by IITB.

3.7.10 Landscape Architecture

Scheme for open space Design, hard and soft areas and Planting design to be provided. Detailed DBR's shall be submitted for review and approval by IITB.

3.7.11 List of specialist Animal Facility Consultant

Animal Facility will be housed in Ground and First floors. Being highly specialised work, Architects are required to engage one of the specialised consultant listed below for providing design details and co ordination pertaining to Animal Facility with prior approval of IITB.

The scope of work in the consultancy assignment shall be concept design of the facility, detailed design and integration of the same with other services, preparation of tender drawings, specification, bill of quantities, preparation of tender documents and supervision during construction

The Animal Facility Consultant meeting the following requirements shall be appointed with the prior approval of IITB.

- 1. Have completed consultancy assignment of Animal Facility Laboratory of at least 1250 sqm built up area during the past 7 years ending 31.10.2022 for any National level reputed Institute or Research Organisation or Industry.
- 2. The type of animals housed in the above facility should be mice, rats, rabbits and the housing capacity for mice should be at least 500 numbers
- 3. The facility's design should meet all the guidelines of the committee for control and supervision of experiments on Animals (CPCSEA)

IITB has already conducted an evaluation of technical competence of consultants and found the following qualified.

- 1. M/s Hari Narayan Rao (Contact: Dr. S.Hari Narayana Rao, Independent Technical consultant, Block 4, Flat 801, myhomeawatar, Nanak Ram Gonda, Hyderabad-500089, Telangana. e-mail hariraos2002@yahoo.com)
- 2. M/s ENCONEXP (Contact: Mr. Yusuf Betasiwala, Director, 1st floor, Sugra manzil, Dr. Ambedkar road, Kalyan West-421301. e-mail **yusufbhetasi@gmail.com**)
- 3. M/s MJA PharmaTECH Pvt Ltd (Contact Mr.Janardhan, Director, 45, First floor, 5th cross, 8th Main road, Vasant Nagar, Banglore, e-mail **projects@mjapharmatech.com**)

The architect consultant can appoint any of the above animal facility consultant as their sub-consultant or must bring their own sub-consultant who should have the above expertise.

3.8 **B:** Deliverables by the architecture design consultant

For all disciplines of Engineering, the Consultant shall submit a Design Basis Report (DBR) and preliminary drawings for review and approval from the authority of IITB, incorporate the comments provided by the authority of IITB, provide detailed drawings, Bill of Quantities (BOQ), cost estimates, Rate Analysis, Technical specifications etc. The detailed construction drawings shall be issued for all the disciplines (Civil and MEP). Following sub-sections indicates the number of prints of drawings in hard copy and reports/design calculations required at each stage for Comprehensive Architecture and Design.

The Deliverables and Timeline

3.8.1 Stage 1. Concept stage

Master plan, Conceptual Architectural drawings including Animal Facility floors, preliminary Architectural design basis report, Preliminary cost estimate on area basis, LOD 200 BIM digital model

Submissions: 3 hard copy and soft copy of the source along with pdf.

Timeline: Within Two Month From the date of issue of work order

3.8.2 Stage 2. Preliminary Design and drawings

Revised drawings incorporating revisions, Detailed site survey, Geo-technical soil investigation, Preliminary design basis report for Structure, MEP services, Animal Facility and landscape.

Submissions: 3 hard copy and soft copy of the source along with pdf.

Timeline: Within two Month of approval of Stage 1

Stage 3. Statutory approval / design development 3.8.3

Submission of drawings to IITB/Liaison consultant for Statutory Approval, submission of revised design basis report for Structure, MEP Services, Animal Facility and landscape, Submission of Proof checking Drawings and documents to Proof Checking Consultant for Structure and HVAC, Registration of project with GRIHA, Coordinated-Clash free LOD 350 BIM model

Submissions: 3 hard copy and soft copy of the source along with pdf.

Timeline: Within two months of approval of Stage 2

Stage 4. Working drawings up to Tendering 3.8.4

Working drawings up to Tender document stage and Obtaining Statutory approvals.

Submissions: 2 hard copy and soft copy of the source along with pdf.

- 1. Submission of revised Proof checking drawings and documents incorporating revisions as per **Proof Checking Consultant**
- 2. Detailed coordinated design drawings
- 3. Detailed Cost Estimate with Rate Analysis
- 4. Tender drawings and draft tender documents including specifications, Schedule of quantities, conditions of contract
- 5. Issue of tender drawings (15 hard copy)
- 6. Documentation support for statutory approval from BMC, Tree authority, and CFO for the commencement of the work.
- 7. Notification to GRIHA for site inspection prior to execution for work commencement.
- 8. Good for construction (GFC) drawings package to be made ready before drafting of work order by IITB for issuing to the contractor. Coordinated Clash-free LOD 350 BIM Model

Timeline: Within Six months of Stage 3

Stage 5. Tender document preparation and process

1. Final Tender documents for invitation of bids including specifications, schedule of quantities, conditions of contract

Submissions: 5 hard copy and soft copy of the source along with pdf)

2. Tender processing consisting of Invitation of tenders, pre-bid meeting and its clarifications, finalisation of tenders and award of work and contract agreements including preparation of comparative statements, Recommendations to client for approval.

Submissions: 2 hard copy and soft copy of the source along with pdf.

Timeline: Within four months of stage 4.

3.8.6 Stage 6. Contract Finalisation and Construction stage

Submissions: 5 hard copy and soft copy of the source along with pdf.

- 1. Issue of Good for construction (GFC) drawings package for Civil works and other associated services such as Public Health, Electrical, HVAC, Animal Facility, Site development etc.
- 2. Issue revised construction drawings with minor revisions, if necessary for all works (including Architectural and Structural drawings) and other associated services such as Public Health, Electrical, HVAC, Animal Facility Site Development etc.
- 3. Periodic site/IITB office visit for general quality assurance, weekly progress review meetings etc.
- 4. Visits of structural designer for RCC pour clearances.
- 5. Periodic inspection of work during execution at regular intervals mutually agreed upon.
- 6. Approve samples of various elements and components
- 7. Check and approve shop drawings submitted by the contractor/vendors.
- 8. Certification for intermediate work done as per RA and Final bills of the contractors in coordination with the construction supervision agency to be appointed by the client separately
- 9. Monitor the estimated quantities for variation and justification for additional expenditure, if any.

Timeline: Within twenty-seven (27) months from stage 5.

Note: During the execution any revisions mutually agreed upon, the revised construction drawings must be issued within 7 days. Further, any clarification or issues arised during the contruction stage must be resolved within 7 days.

3.8.7 Stage 7. Completion stage

Submissions: 3 original hard copy and soft copy of the source along with pdf.

1. Certification of final contractor's bills in co-ordination with the supervising agency

- 2. Submission of As-built drawings on completion of work, Updated As-Built LOD 350BIM model
- 3. Documentation support for statutory approval from BMC, Tree authority, and CFO for the completion certificate of the work.
- 4. Certification from GRIHA (As per statutory and GRIHA norms)

Timeline: Within one month of stage 6

3.8.8 General Note

- 1. Persons to receive and review requirements: Dean (IPS) or his authorised persons.
- 2. All drawings /documents specified are included in the cost of Fees payable and if revisions are carried out revised GFC to be issued without extra cost.
- 3. Technical Sanction: The detailed estimate for Technical Sanction shall be based on the detailed drawings. The item descriptions shall be generally in line with the provisions of CPWD schedule of Rates enhancing w.r.t Cost Index and its latest specifications. In case of non-scheduled/special works the item description shall be framed as per good engineering practice supported with specifications and rate analysis as per reasonable market rates. Financial implications of quantity of variations/deviations of individual items exceeding beyond the Deviation limit as specified in works contract shall not be considered for working out Design Consultant's fees unless change attributed to IITB.
- 4. Periodic visit by consultant: The consultant or identified Principal Architect shall periodically visit project site for inspection of works and also attend Project Review Meetings held at Dean (IPS) Office, IITB on regular basis as decided by IITB.
- 5. All materials to be incorporated shall be recommended and approved by the architect.

3.9 C: Form of Performance Security (Guarantee)

FORM OF BANK GUARANTEE BOND FOR PERFORMANCE SECURITY

- 1. In consideration of the Dean (IPS), Indian Institute of Technology Bombay (hereinafter called IITB) having agreed under the terms and conditions of Letter of Intent/ Work order/ Agreement No ... dated ... made between Indian Institute of Technology Bombay and (hereinafter called "the said Consultants") for the work ... for Indian Institute of Technology Bombay (IITB) (hereinafter called the said Letter of Intent/ Work order/ Agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. ... (Rupees ... only), as a security / guarantee from the consultant(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement, we ... (indicate the name of the Bank) (hereinafter referred to as the Bank) hereby undertake to pay IITB an amount not exceeding Rs. ... (Rupees ... only) on demand by IITB.
- 2. We ... (indicate the name of Bank) do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from IITB stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Consultant(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable

- by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ... (Rupees ... only)
- 3. We, the said bank, further undertake to pay to IITB any money so demanded notwithstanding any dispute or disputes raised by the Consultant(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.
- 4. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Consultant(s) shall have no claim against us for making such payment.
- 5. We ... (indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of IITB under or by virtue of the said Agreement have been fully paid and its claims are satisfied or discharged or till Engineer-in-charge on behalf of IITB certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Consultant(s) and accordingly discharges this guarantee.
- 6. We ... (indicate the name of Bank) further agree that IITB shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Consultant(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by IITB against the said Consultant(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Consultant(s) or for any forbearance, act of omission on the part of IITB or any indulgence by IITB to the said Consultant(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
- 7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant(s).
- 8. We, ... (indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of IITB in writing.
- 9. This guarantee shall be valid up to ..., unless extended on demand by IITB. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. ... (Rupees ... only), and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Signed and sealed

Dated the ...day of ...for ... (indicate the name of Bank)

(**Note**: The Letter of Intent shall form part of the Agreement)

Technical Proposal

The bidder shall submit Technical Proposal for the assignment as per the details provided in the Data Sheet.

Design brief 4.1

- 1. A Ground+5 floor building, RCC Framed structure has been considered in the conceptual plan. The proposed buildings to be designed keeping in view overall permissible height ceiling of 30 meters, following norms for vertical construction as permitted by local authorities, and ensuring optimum utilisation of space and building footprint. Total built up area envisaged is 5112 sqm
- 2. Ground and first floors shall be housing animal facility and the remaining floors cater for the requirements of Bio Science and Bio Engineering (BSBE) Department.
- 3. The animal facility mainly includes space for veterinarian, Zebra fish facility, Gamma irradiator room, quarantine room for mice, quarantine room for rats/rabbits, storage room, washing/ autoclave room, Laboratory for QC/ Hematology/ Biochemistry, Histology at ground floor. First floor comprises of space for imaging facility+holding room, mice breeding/holding rooms, rat breeding/holding room, rabbit breeding/holding room, procedure rooms, storage room. Services like staircase, lift, toilet, electrical panel room, AHU rooms, etc and clean corridor, dirty corridor as required to be provided.
- 4. The upper floors are for BSBE which houses mainly offices, students sitting area, seminar rooms, meeting rooms, UG teaching laboratory, conference room, faculty offices, adjunct/visiting faculty offices, equipment laboratory, faculty laboratory etc
- 5. The building shall have separate entry, 1 no of elevator and a staircase for animal facility floors with floor height of 4.2 m. BSBE floors shall have 3 elevators (2 passengers and one freight) and a staircase. Facility includes toilet at each floor, fire fighting system with wet riser and sprinkler system, automatic fire alarm system, separate UG tank for fire fighting with pumping arrangement, VRV/ VRF Air conditioning, AV and CCTV, back up UPS system and pantry room in each floor.
- 6. The concept part Master Plan shall have location of the Central Animal Facility Building and other surrounding existing buildings and locating future buildings.
- 7. **Note**: The floor-wise break-up of built-up area and facilities are given in Table 4 as per the end users' requirements. Consultants have to consider the data provided in the Table in their conceptual design and closely adhere to the special requirements mentioned in remark. Minor changes in the built-up area are permissible for better conceptual design.

4.2 **Technical Proposal Preparation**

- 1. Consultant is expected to examine all terms and instructions included in the documents furnished with offer.
- 2. The estimated cost of construction or work for which the consultancy assignment is sought as well as the time to complete the assignment is stated in Data Sheet. Financial Proposal may be in accordance with this.

- 3. The key professional staff, listed in the offer, shall be made available for the entire duration of the execution of assignment. This shall preferably be the permanent employees of the firm.
- 4. Proposed staff must have relevant educational qualification and experience, preferably under conditions similar to those prevailing at the locations of the assignment.
- 5. No alternative to key professional staff may be proposed and only one CV may be submitted to each position.

4.3 **Informations to be provided**

Technical Proposal should provide the following information, but not limited to,

- 1. Any comments or suggestions on the scope of work and services, documents and details made available with this offer, as well as on the facilities to be provided by IITB.
- 2. A description of methodology (work place), which the consultant proposes to employ in performing the assignment, duly illustrated with bar charts of graphics or any other type of Graph-
- 3. C.V. recently signed by the proposed key professional staff and countersigned by an authorised officer of the consultant. Key information should include: years with the firm/entity and responsibilities held in various assignments during last ten years.
- 4. Estimates of the total time effort (person x months) to be provided for the services for each stage or phase of assignment, supported by breakdown of effort proposed (person x months) for major items of work and services.
- 5. Details of specific experience/expertise/information asked for in the Data sheet.
- 6. Confirmation/Submission on salient technical conditions mentioned in the offer document.
- 7. Quality assurance system/programme proposed to be employed in design, engineering, procurement, inspection and management activities.

Note: The technical proposal shall not include any financial information.

Data sheet A: Information to Consultants

Name of Employer: Director, Indian Institute of Technology Bombay, 1st Floor, Main Building, Powai, Mumbai 400076

Name of the work: Comprehensive Architectural Consultancy Services for the Proposed Central Animal Facility Building at IIT Bombay, Powai, Mumbai-400076

Area: Total area to be developed is about 5112 sqm BUA as per the attached layout plan (Refer figures 3 on page 35 and 4 on page 37).

Table 1: Schedule of completion of major activities

No.	Description of Activity	Period of Activity
		in monts
1	Stage 1-Concept stage: Master plan, Conceptual Architectural draw-	From 0-2
	ings including Animal Facility floors, preliminary Architectural design	(Two Months)
	basis report, Preliminary cost estimate on area basis. Revising the mas-	
	ter plan, conceptual drawings and resubmitting details, LOD 200 BIM	
	model. (See section 3.8.1 for details)	
2	Stage 2-Preliminary Design and drawings: Revised drawings incor-	From 2-4
	porating revisions, Detailed site survey, Geo technical soil investigation,	(Two Months)
	Preliminary design basis report for Structure, MEP services, Animal Fa-	
	cility and landscape, (See section 3.8.2 for details)	
3	Stage 3-Statutory approval / design development: Submission of	From 4-6
	drawings to IITB/ Liaison consultant for Statutory Approval, submis-	(Two Months)
	sion of revised design basis report for Structure, MEP Services, An-	
	imal Facility and landscape, Submission of Proof checking Drawings	
	and documents to Proof Checking Consultant for Structure and HVAC,	
	Registration of project with GRIHA. (See section 3.8.3 for details)	
4	Stage 4-Working drawings up to Tender document stage and Ob-	From 6-12
	taining Statutory approvals: including Coordinated Clash Free LOD	(Six Months)
	350 BIM model. (See section 3.8.4 for details)	
5	Stage 5-Tender document preparation and process: (i) Final Ten-	From 12-16
	der documents for invitation of bids including specifications, schedule	(Four Months)
	of quantities, conditions of contract, (ii) Tender processing consisting	
	of Invitation of tenders, pre-bid meeting and its clarifications, finalisa-	
	tion of tenders and award of work and contract agreements including	
	preparation of comparative statements, Recommendations to client for	
	approval. (See section 3.8.5 for details)	
6	Stage 6-Contract Finalisation and Construction stage (See sec-	From 16-43
	tion 3.8.6 for details)	(27 Months)
7	Stage 7-Completion stage: (i) Certification of final contractor's bills	From 43-44
	in co-ordination with the supervising agency (ii) Submission of As-	(One Months)
	built drawings on completion of work, Updated As-Built LOD 350 BIM	
	model Certification from GRIHA (See section 3.8.7 for details).	

Estimate: The estimated cost of construction: Rs. 30.00 Cr. (including Civil+MEP but excluding GST).

Duration: The Assignment to be completed within 44 Months or as may be necessary to complete the assignment in all respects.

Schedule for completion of major activities: See details in Table 1.

Financial liabilities Conditions related to Tax Liability, Insurance, description or reference to documents:

- 1. The consultant and his personnel shall pay taxes and other impositions levied under existing, amended or enacted laws during life of assignment.
- 2. The consultant shall cover employer's compensation insurance for his or his sub-Consultant (if applicable) personnel in accordance with the provisions of relevant applicable laws.
- 3. GST shall be paid to the consultant as applicable along with the professional fee as per Financial Bid.

4.5 Form of consultancy contract (Draft)

This Contract (hereinafter called the Contract) is made the ... day of the month of ... Two thousand ... between, on one hand, Dean (I.P.S.) (hereinafter called the ... which expression shall include his successors and permitted assigns), Indian Institute of Technology Bombay, Powai, Mumbai and, on the other hand, M/s ... having its Registered office at ... hereinafter called Consultant which expression shall, unless repugnant to the context, be deemed to include its successors and assigns).

WHEREAS

- (A) The ...has requested the consultant to provide certain consulting services as defined in the General Conditions of the Contract attached to this Contract (hereinafter called the Services);
- (B) The consultant, having represented to the ... that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in the contract;

Now therefore the parties hereto agree as follows:

The following documents attached hereto shall be deemed to form an integral part of this contract:

Part I. Technical bid consisting of

- (a) General Conditions of the Contract (herein after called GCC);
- (b) The following sections:
 - i. A: Description of the Services
 - ii. B: Deliverables by the Consultant

iii. C: Guarantee for Performance of Services

Part II. Financial bid consisting of:

- (a) Financial bid
- (b) Milestone for Payment of Consultancy Charges
- (c) Effecting payment of consultant
- (d) Details of Reimbursable expenses

The mutual rights and obligations of the Consultant shall be as set forth in the Contract, in particular:

- 1. The consultant shall carry out the Services in accordance with the provisions of the Contract; and
- 2. IITB shall make payments to the consultant in accordance with the provisions of the contract.

In WITNESS WHEREOF, the parties hereto have caused this contract to be signed in their respective names as of the day and year first above written.

FOR AND ON BEHALF, I.I.T. (B)

Dean (I.P.S.)

In presence of

Witness

1.

2.

FOR AND ON BEHALF OF (CONSULTANT)

(Authorized Representative)

In presence of

Witness

1.

2.

4.6 Design requirements

The design requirements and area distribution provided by the proposed users is given in detail in Table 2, Table 3 and Table 4.

Key design requirements

- 1. Total BUA of the building in G+5 structure is about 5112 sqm
- 2. Animal Facility is housed in Ground and First floors with a total BUA of about 1672 sqm with a foot print area of about 836 sqm
- 3. Second to Fifth floors will cater the requirements of BSBE Department.

Table 2: Ground floor requirement and the carpet area in sq. ft.

	1 1	
No.	Description	Area
1	Office Space for veterinarian and four working staff	600
2	Zebra fish Facility	1300
3	Gamma irradiator room	700
4	Quarantine room for mice	100
5	Quarantine room for rats/rabbits	100
5	Storage room	1000
6	Washing/autoclave room	800
7	Laboratory (QC / Hematology / Biochemistry / Histology)	1000
8	Elevator and staircase	400
9	Total	6000

- 4. Separate entry, elevator, and staircase are required for the Animal Facility floors, apart from the rest of the top floors.
- 5. Animal Facility floors shall have a ceiling height of 4.2 m for both floors. A higher ceiling will be utilised for ducting.
- 6. Animal Facility floors will need HVAC to maintain the required temperature, humidity, and air pressure. HVAC space requirements should be kept in mind in the design. Ground floor shall have VRF and first floor shall have centralized HVAC.
- 7. At full Capacity, the Animal Facility floors are expected to house the following numbers and types of animals: -
 - (a) 2000 Mice (384 cages, IVC)
 - (b) 500 Rats (100 cages, IVC)
 - (c) 56 Rabbits (27 cages, non-IVC)
 - (d) Zebra fish facility on the ground floor
- 8. Running an Animal Facility is expensive, and the major funds go to maintaining a proper environment (using HEPA filters, Air conditioning, etc.) for animals. To make it a cost-effective operation, users want a modular design of Animal Facility. When required, the design should permit partial operation of the Animal Facility floors with fewer animals to minimise the running costs. In other words, should be able to shut down any room if NOT in use.

Note: The users requirements of various facilities (carpet area specified in sqft), special requirements and preliminary design of Animal Facility floors as indicated above have to be referred by Consultants in the preparation of a conceptual design of Central Animal Facility Building. Minor changes in the area is permitted to accommodate the efficient design and use of structure.

Table 3: First floor requirement and the carpet area in sq. ft.

	The state of the s	
No.	Description	Area
1	Lobby area + extra space	400
2	Imaging facility + holding room	800
3	Clean corridor	400
4	Dirty corridor	1200
5	Mice breeding/holding rooms (5 rooms; 250 sqft each)	1250
6	Rat breeding/holding room	300
7	Rabbit breeding/holding room	200
8	Procedure rooms (2 rooms; 400 sqft each)	800
9	Storage room	250
10	Elevator and staircase	400
11	Total	6000
	<u> </u>	

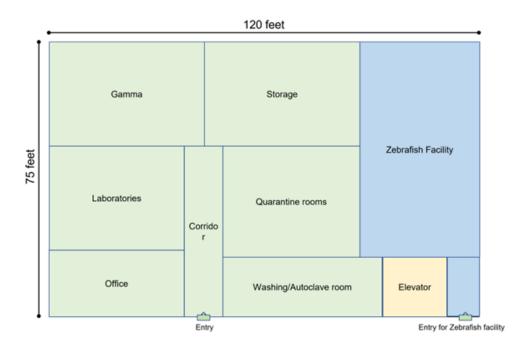


Figure 1: Preliminary design for ground floor of the animal facility

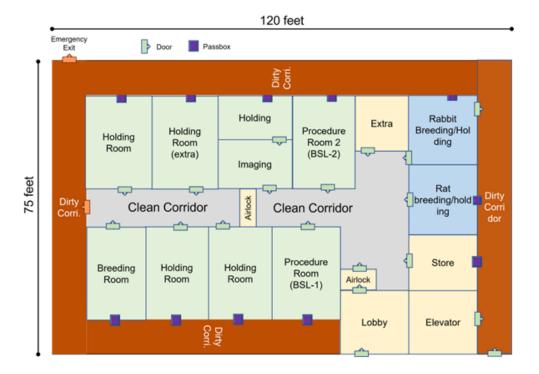


Figure 2: Preliminary design for the first floor of the animal facility



Figure 3: Layout map showing the location

Table 4: Carpet area (in sq. ft.) requirements for upper floors (2 to 5)

	T1	Table 4. Carpet area (iii sq. 1t.) requirements for upper noofs (2 to 5)	
No	Floor	Description	Area 1000
1	2F	Office Space, sitting space for 8 Staff Members, Open tables with partitions	
		organised in sets of four tables, under-table storage, Additional Storage Racks	
2	2F	Student Sitting Area, 100-seater, Desks with power connection, Centralised	1000
		AC	
3	2F	Seminar Room (Small), 50-seater, White Board/Black Board, WIFI/ LAN	1250
		/Phone/ Projector connections, Centralised AC	
4	2F	Seminar Room (Large), 100-seater, White Board/Black Board, WIFI/ LAN/	1750
		Phone/ Projector connections, Centralised AC	
5	2F	Meeting Room no 1(10 ft x 10 ft), Center Table, White Board, WIFI/ LAN/	100
		Phone/ Projector connections, Centralised AC	
6	2F	Meeting Room no 2 (15 ft x 10 ft), Center Table, White Board, WIFI/ LAN/	150
		Phone/ Projector connections, Centralised AC	
7	2F	Common utility area	750
8	2F	Total	6000
9	3F	UG Teaching Labs (2), Class Size: 35,	3500
10	3F	Conference Room, center table with sitting arrangement for upto 50 people,	750
		White Board, WIFI/ LAN/ Phone/ Projector connections, Centralised AC	
_11	3F	Faculty Offices (10 ft x 10 ft) (Ten)	1000
_12	3F	Common utility area	750
_13	3F	Total	6000
14	4F	Adjunct/ Visiting Faculty Offices (10 ft x 10 ft)	100
_15	4F	Common Equipment Lab: Sink, Fume Hood, ACs for 24 x 7 operation	650
_16	4F	Faculty Labs (Five): Sink, 15A plug points (Two), ACs for 24 x 7 operation	4500
_17	4F	Common utility area	750
_18	4F	Total	6000
19	5F	Adjunct/ Visiting Faculty Offices (10 ft x 10 ft)	100
20	5F	Common Equipment Lab: Sink, Fume Hood, ACs for 24 x 7 operation	650
_21	5F	Faculty Labs (Five): Sink, 15A plug points (Two), ACs for 24 x 7 operation	4500
22	5F	Common utility area	750
_23	5F	Total	6000
24	-	Common for All Floors	
25	All	2 Lifts: Small Lift (4 ft x 5 ft) + Big Lift (6 ft x 5 ft)	50
26	All	Freight Elevator (Capacity: 2 Tons) (10 ft x 10 ft)	100
27	All	Toilets (300 sq. ft.)	300
28	All	Pantry Room (300 sq. ft.)	300
29	All	Common utility area	750

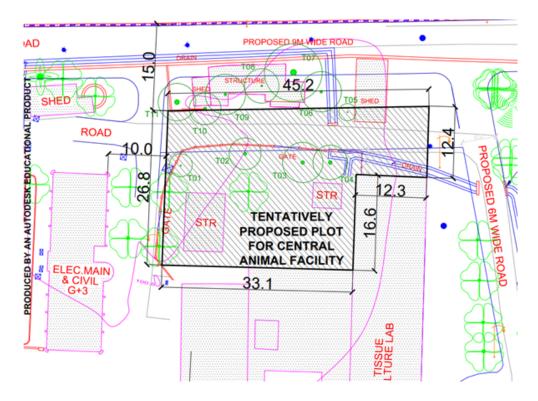


Figure 4: Layout map showing the plot

5 **Financial Proposal**

The Financial proposal should be submitted on the consultants letterhead and should be duly complete in all aspects, without any additional conditions except those mentioned in the RFP (Request for Proposal) and free from any computational errors. In preparing the Financial Proposal, the Consultant is expected to consider, besides technical requirements, commercial conditions specified in the offer document.

The Financial Proposal for the assignment and for additional works shall be all-inclusive, and should cover, but not limited to, remuneration of staff (in the field and at headquarters), gratuity, Provident fund, travel assistance, out-of-pocket expenses (per diem), Overheads, Profits, Accommodation (housing), transportation (for mobilisation and demobilisation), Communication, Equipment (vehicles, office equipment, furniture, consumables, etc.), the printing of documents, Surveys, training. The Financial Proposal shall also include the tax liability and cost of Insurance of the Consultants' firm and his personnel specified in the Data sheet. The fee shall be quoted in in Percentage only.

5.1 Schedule of financial proposal

- 1. Financial Bid (Details in section 5.2 on page 38)
- 2. Milestone for Payment of Consultancy Charges (Details in section 5.3 on page 39)
- 3. Effecting payment to the Design Consultant (Details in section 5.4 on page 42)
- 4. Reimbursable expenses (Details in section 5.5 on page 42)

Financial bid **5.2**

Name of the Work: Comprehensive Architectural Consultancy Services for the Proposed Central Animal Facility Building at IIT Bombay, Powai, Mumbai-400076

Ref. No. IITB/DIPS/CAF/AC/01 Dated 2022 Nov 10

Table 5: The Financial Bid (The bid is in terms of the percentage to be written in both figures and words in this table)

No.	Item Description	Percentage		Percentage Percen		entage	
		of fee	in	of	fee	in	
		figures		WOI	rds		
1	Comprehensive Architectural Consultancy for the Comprehensive						
	Architectural Consultancy Services for the Proposed Central An-						
	imal Facility Building at IIT Bombay, Powai, Mumbai-400076						
	consisting of providing design, drawings, cost estimate, specifi-						
	cations, DBRs, reports, etc. consisting of Architectural, Civil,						
	Structural, Public Health, Electrical, Mechanical, Fire Fighting						
	System, Animal Facility, Acoustic, etc.including Landscape Ar-						
	chitecture and Interior Architecture complete.						
	The % (Percentage) of Fees shall be quoted based on the Prelim-						
	inary Estimated cost of Rs. 30.00 Cr. (including Civil+MEP but						
	excluding GST) and given in the Data Sheet as per the scope of	%		(Da	raant	0.00	
	work defined in Technical Proposal-PART-A, subject to Note be-	, -	togo	`	rcent	_	
	low this table.	(Percen	_	111 V	vords	'	
		in figure	(8)				

Note:

- 1. Quoted percentage shall include all the taxes applicable except GST which shall be added separately. Percentage quoted shall be written in words.
- 2. Maximum amount payable will be restricted to the percentage of the actual cost executed through contracts or percentage on Technically Sanctioned cost which ever lower.
- 3. Quoted percentage shall include preparation of drawings/ documents/ area statements etc required for submission to IITBs liaison Architect for obtaining statutory approvals

Signature of authorized signatory with designation, date and office seal

5.3 Milestones payment of consultancy charges

Table 6: Milestones payment of consultancy charges

No.	Stages of payment and activity	Fees payable
1	Stage 1. Concept stage 1. Prepare a generatual Master plan for the development of Central	10 % (Ten) of to-
	 Prepare a conceptual Master plan for the development of Central Animal Facility Building indicating existing structures and locat- ing future buildings. 	tal fees payable
	2. Prepare Conceptual Architectural drawings for civil works and animal facility including Landscaping and Interior Architecture	
	3. Prepare Preliminary Architectural Design Basis Report	
	4. Provide a preliminary cost estimate on area basis.	
	5. LOD 200 BIM digital model	
2	Stage 2. Preliminary Design And Drawings stage	20 % (Twenty) of
	1. Modify the conceptual designs incorporating the changes necessary and prepare the preliminary drawings and sketches.	total fees payable less payment made at Stage 1
	2. Submit detailed site survey drawing	
	3. Submit Geo-technical soil investigation report	
	4. Submit Preliminary Design Basis Report for Structure, HVAC, PHE, Animal Facility and Landscape	
3	Stage 3. Statutory Approval stage / Design Development	30 % (Thirty) of
	1. Prepare drawings necessary submission of drawings to IITB/Liaison consultant for Statutory approvals	total fees payable less payment made up to Stage
	2. Submission of revised design basis report for Structure, MEP Services and landscape	2
	 submission of drawings and documents of structural and HVAC design to Proof checking Consultant 	
	4. Submission of design of Animal Facility and its associated services	
	5. Registration of Project with GRIHA	

4	 Stage 4. Working Drawings up to Tender Documents and Obtaining statutory approval stage Submission of revised Proof checking drawings and documents incorporating revisions as per Proof Checking Consultant Detailed coordinated design drawings Detailed Cost Estimate with Rate Analysis Render drawings and draft tender documents including specifications, Schedule of quantities, conditions of contract Issue of tender drawings Submission of necessary drawing to IITB's Liaison architect for Statutory approvals from MCGM, Tree authority, CFO etc. for work commencement. Notification to GRIHA for site inspection prior to execution for work commencement. Good for construction (GFC) drawings package to be made ready before drafting of work order by IITB for issuing to the contractor. Coordinated clash free LOD 350 BIM model 	48 % (**) (Forty Eight) of total fees payable less payment made up to Stage 3
5	 Stage 5. (*) Tender document preparation and process Final Tender documents for the invitation of bids including specifications, schedule of quantities, conditions of contract Tender processing consisting of Invitation of tenders, pre-bid meeting and its clarifications, preparation of comparative statements, finalisation of tenders and award of work and contract agreements. Recommendations to client for approval. 	50 % (**) (Fifty) of total fees payable less payment made up to Stage 5

6	Stage 6 Contract Finalisation and Construction Stage	95 % (**)
	1. Issue of Good for construction (GFC) drawings package for Civil works and other associated MEP services such as Public Health, Electrical, HVAC, Animal Facility, Site development etc.	(Ninety Five) of total fees payable less payment made up to Stage
	2. Issue of revised construction drawings with minor revisions, if necessary for all works (including Architectural and Structural drawings) and other associated services such as Public Health, Electrical, HVAC, Animal Facility, Site Development etc.	5. Fees will be paid in stages proportionate to the quantum work executed as
	3. Periodic site and IITB office visit for general quality assurance, weekly progress review meetings etc.	per the Contractors certified bill value.
	4. Visits of structural designer for RCC pour clearances.	varue.
	5. Periodic inspection of work during execution at regular intervals mutually agreed upon.	
	6. Approve samples of various elements and components	
	7. Check and approve shop drawings submitted by the contractor/vendors.	
	8. (*) Certification for intermediate work done as per RA and Final bills of the contractors in co-ordination with the construction supervision agency to be appointed by the client separately	
	9. Monitor the estimated quantities for variation and justification for additional expenditure, if any.	
7	Stage 7. Completion Stage	100 % (**) (One
	1. (*) Certification of final contractor's bills in co-ordination with the supervising agency	Hundred) of total fees payable less payment made at
	2. Submission of As-built drawings on completion of work	Stage 1 to 6
	3. Preparation of as built drawings and documents for obtaining final statutory clearances / completion certificates from MCGM, Chief Fire Officer, Tree authority etc. including documents for occupation.	
	4. Certification from GRIHA	
	5. Updated As-Built LOD 350 BIM model along with as-built drawings in appropriate digital format to be submitted to IITB	

Note:

1. If scope of work marked (*) is not assigned then reduction in Consultancy fee shall be applicable as per financial bid.

2. (**) The % Fee indicated in stages 5, 6 and 7 shall be reduced by 2 % (Two percent) of the Total fee payable, if the scope marked (*) is not assigned and accordingly fee payable shall be worked out.

5.4 **Effecting payment to the design consultant**

Comprehensive Design Service payment due to the Design Consultant at different stages will be computed on the following basis:

- A At Stage 1: On preliminary estimated cost.
- B At Stages 2 to 5: On preliminary estimated cost.
- C At Stages 6: Technical Sanction cost or Actual total cost, whichever is lower.
- D At Stages 7: Technical Sanction Cost or Actual total cost, whichever is lower.

The Client shall make progressive on account payments to the Design Consultant against any of the above stages based on the quantum of work done during that stage, as may be mutually agreed to between Client and the Design Consultant.

No deductions shall be made from the fee of the Design Consultant on account of penalty, liquidated damages, part rates or for the sums withheld from payment or recovered from Contractors / suppliers.

The actual cost of the completed works shall include cost of execution of assigned works, referred to in Scope of Work and also the cost of equipment and machinery such as Transformers, DG Sets, Sub-stations, Lifts, Air Conditioning Machines, Pumps and Motors, Water and Sewage Treatment Plant, etc., but excluding the cost of land.

Design Consultant may list out the deliverables and numbers thereof, in case progressive payment is desired under any activity, to quantify the progress vis--vis the milestone.

5.5 Reimbursable expenses

- 1. Proof Checking of Structural Design and HVAC
- 2. Fees payable to Statutory Authorities such as Chief Fire Officer, BMC etc. if any with prior approval
- 3. GRIHA Registration Fees
- 4. Detailed Site Survey and Geo-technical investigation and Topographic Survey.

Note: The payment for the reimbursable expenses to the Design Consultant shall be paid within fifteen (15) days from the date of submission of the original invoice (received from the concerned agencies) to the Client.

Signature

(Authorized Signatory)

Full Name:

Designation: