NIT No. IITH/CMD/NIT/CPPP/2019-20/13

### **TENDER FOR**

### CONSTRUCTION OF 336 BOARDERS RCC PRECAST HOSTEL BUILDING (G+6) AT IIT HYDERABAD



भारतीय प्रौद्योगिकी संस्थान हैदराबाद Indian Institute of Technology Hyderabad

### Volume -1

Notice Inviting Tender, Instructions to Bidders and Special Conditions of Contract

(NIT)

### **INDEX**

### <u>NIT No.:</u> IITH/CMD/NIT/CPPP/2019-20/13

### <u>Name of the Work</u>: CONSTRUCTION OF 336 BOARDERS RCC PRECAST HOSTEL BUILDING (G+6) AT IIT HYDERABAD

Sl. No	Description	Page No			
	<u>Volume-1:</u> Notice Inviting Tender, instructions to bidders and Special conditions of contract (NIT)				
1.	Index	1			
2.	Notice Inviting Tender (NIT)	2			
	PART - A				
1.	Section-1: General Information	3 -9			
2.	Proforma of Schedules & clauses	10-22			
3.	NIT Form and Acceptance	23-26			
	PART - B				
1.	Section-2: Special Conditions of the Contract	27-31			
	PART - C				
1.	Section-3: Additional Conditions of Contract	32-35			
	PART-D				
1.	Section-4: General Information	36-47			
2.	Technical Bid	47			
3.	Financial Bid	47-48			
	PART-E				
1.	Section-5: Technical Bid and Bid Forms				
2.	Information and Guidelines for Bidders				
3.	Eligibility and Evaluation Criteria Form-K 6				
4.	Letter of Transmittal 6				
5.	Form A1 to Form J 7				
6.	Integrity Agreement 8				
7.	Proforma of Affidavit for Non- Black Listing Form'M' 8				
8.	Appendices	87-90			
	Volume-2:Financial Bid				
1	Index	92			
2	Payment Schedule	93-102			
3	General Abstract	103			
	<u>Volume-3:</u> Scope of Work User Requirement & Technical Specifications				
1	Index	105			
2	Scope of Work	106-113			
3	Specifications for precast elements	114-117			
4	Development works and Bulk Services	118-122			
5	List of Approved Makes & Annexures	123-150			
6	Drawings	151-153			
	Volume-4: General Conditions of Contract 2019- EPC Projects				
1	Index	155			
2	Index Volume-4	156			
3	GCC 2019 EPC Projects	157-278			

### Section 1

### INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD NOTICE INVITING TENDER (NIT No.IITH/CMD/NIT/CPPP/2019-20/13)

1.1 Composite bids on ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) basis are invited on behalf of Director, IIT Hyderabad from approved and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway and State P.W.D. (B&R) for the work of Construction of 336 Boarders RCC Precast Hostel building (G+6) at IIT Hyderabad

The enlistment of the contractors should be valid on the last date of sale of tenders.

In case only the last date of sale of tender is extended, the enlistment of contractor should be valid on the original date of sale of tenders.

In case both the last date of receipt of application and sale of tenders are extended, the enlistment of contractor should be valid on either of the two dates i.e. original date of sale of tender or on the extended date of sale of tenders.

- 1.1.1 The work is estimated to cost Rs.**12,04,69,727/-**. This estimate, however, is given merely as a rough guide.
- 1.1.2 Tenders will be issued to eligible contractors provided they produce definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for issue of tender documents:

Three similar works each of value not less than 40% of estimated cost or two similar works each of value not less than 60% of estimated cost or one similar work of value not less than 80% of estimated cost (rounded to nearest Rs. 10 lac) in last 5 years ending last day of the month previous to the one in which the tenders are invited.

# Note : The monetary values and detailed information of the above criteria are clearly indicated at Volume 1, Part -D, Section 4.

Note: Similar work shall mean:

"Construction of precast RCC structure designed as either beamcolumn system or wall panel-slab system including internal and external water supply, sanitary installations, drainage, internal electrical installations, lifts, firefighting systems, all composite executed under one agreement in India. Godowns or Ware Houses or factory sheds shall not be considered as eligible similar works".

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of receipt of application for tender.

However, the Composite category contractor shall also be eligible to carry out this item of work himself without associating with any specialized agency provided he fulfils the prescribed eligibility criteria respectively for this item of work. 1.2 To become eligible for issue of tender, the tenderer shall have to furnish an affidavit as under :-

I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in IIT Hyderabad in future forever. Also, if such a violation comes to the notice of IIT Hyderabad before date of start of work, the Engineer- in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

- 1.3 Agreement shall be drawn with the successful tenderer on prescribed Form which is available in the Vol-III page no.221 to 225 of the tender documents. Tenderer shall quote his rates on EPC mode as per various terms and conditions of the said form which will form part of the agreement.
- 1.4 The time allowed for carrying out the work will be **210 days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.
- 1.5 The site for the work is available.
- 1.6 Applications for issue of tender documents shall be received by the Executive Engineer till 1600 Hrs of <u>11-10-2019</u> and tender document shall be issued up to 1600 Hrs of <u>14-10-2019</u>
- 1.7 Tender document consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms & conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents can be seen in the office of the Executive Engineer, IIT Hyderabad, Kandi,

Sangareddy 502 285 between hours of **11.00 AM & 4.00 PM** from **01-10-2019** to <u>11-10-2019</u>.

Monday through Friday except on Public Holidays. Tender documents, excluding standard form, will be issued from Executive Engineer's office, during the hours specified above, on payment of **Rs. 6,500/-** in cash as cost of tender.

- 1.8 Tenders shall be accompanied with Earnest money of Rs. 22,04,000/- in Deposit at Call receipt of a scheduled bank/fixed deposit receipt of a scheduled bank/demand draft of a scheduled bank issued in favour of *IIT Hyderabad*. Earnest money can be accepted in the form of Bank guarantee issued by a scheduled bank having validity for 6 months or more from the last date of receipt of tenders.
- 1.9 The tender and the earnest money shall be placed in separate sealed envelopes, each market "Tender" and "Earnest Money", respectively. Both the envelopes shall be submitted together in another sealed envelope with the name of work and due date of opening written on envelope, which will be received by the Executive Engineer up to **3.00 PM on** <u>17-10-2019</u> and will be opened by him or his authorized representative in his office on the **same day at 3.30 PM**. The envelop marked "Tender" of only those tenderers shall be opened, whose earnest money, placed in the other envelope, is found to be in order.
- 1.10The contractor whose tender is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F'. including the

extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

1.11The description of the work is as follows:

The proposed work comprises of constructing RCC hostel block to accommodate 336 boarders (168 rooms), G+6 Structure with all RCC precast elements like solid core wall panels, hollow core slabs, staircases, precast fins, precast parapet walls, with all internal and external finishes and services, site development, landscaping, hardscaping, complete in all respects.

Copies of other drawing and documents pertaining to the works will be open for inspection by the tenderers at the office of above mentioned officer.

1.12Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 1.13The competent authority on behalf of Director, IIT Hyderabad does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
- 1.14Canvassing whether directly or indirectly, in connection with tenderers is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 1.15The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
- 1.16The contractor shall not be permitted to tender for works if his near relative is posted a Divisional Accountant or as an officer or faculty in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive) or faculty. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Institute.
- 1.17No Engineer of gazette rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
- 1.18 The tender for the works shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders/Ninety days from the

date of opening of financial bid in case tenders are invited on 2/3 envelop system (strike out as the case may be) if any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.

- 1.19This notice inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:
  - a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
  - b) Standard Contract form (General Conditions of Contract) is a part of this notice and is enclosed. The bidder is deemed to have gone through and understood the provisions of the General Conditions of the Contract before bidding for the work.

Executive Engineer IIT Hyderabad

(Signature of bidder)

	FORMA OF SCHEUDLES: A TO F vil and Electrical Works)
SCHEDULE "A"	: Schedule of quantity for quoting combined rates for Civil Works and Electrical works as per form page Vol-II page 91 to 103
SCHEDULE "B" Schedule of material to be issued to the	: -Nil-
agency	
<b>SCHEDULE "C"</b> Tools and Plants to be hired to the agency.	: -Nil-
SCHEDULE "D" Extra schedule for specific requirements / documents for the work, if any	: Refer Part A, B & C
SCHEDULE "E"	
Extra schedule for specific requirements / documents for the work, if any	: General Conditions of Contract CPWD for EPC Works; Manual 2019 and Standard operating Procedures for CPWD Works Manual 2019 as amended / modified up to the last date of submission of Bid.
Name of Work	Construction of 336Nos. boarder pre-cast hostel bldg.(G+6) at IIT Hyderabad.
Estimated Cost of Work	: Rs.12,04,69,727/-
Earnest Money	: Rs. 22,04,700/-
Performance Guarantee	: 5% of bid amount
Security Deposit	: 2.5 % of bid amount

### SCHEDULE "F" (GENERAL RULES & DIRECTIONS)

Office	r inviting bid	<ul> <li>Executive Engineer, Construction and Maintenance Division (CMD),</li> <li>IIT Hyderabad.</li> </ul>
Defini (i)	tions: Engineer-in-charge	: Executive Engineer, CMD or successor thereof.
(ii)	Accepting Authority	: Director, IIT Hyderabad or successor thereof.
(iii)	Percentage on cost of materials and Labour cover all to overheads and profits	: 15%
(iv)	Standard Schedule of Rates (i) Civil Work	Plinth Area Rates 2019 with modifications and correction slips up to date of submission of bids + Cost Index
	(ii) Electrical work	applicable.
	(iii) Horticulture Work	
	Department	: Construction and Maintenance Division, IIT Hyderabad
	Standard Contract Form	: CPWD Form 8 & GCC for Works on EPC mode enclosed with this tender document.

### Clause 1

- (i) Time allowed for submission of Performance Guarantee, programme chart (Time and Progress) and applicable labour licenses, registration with GST, EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.
- : 15 days

Maximum allowable extension with late fee	:	10 days with late fee @ 0.1% per day of PG
(non refundable) @ $0.1\%$ per day of		amount
Performance Guarantee amount beyond the		
period provided in (i) above		
Clause 2		
(i) Authority for fixing compensation	:	Superintending Engineer, Construction and
under clause 2		Maintenance Division, IIT Hyderabad or
		successor thereof.
Clause 2A		
(i) Whether Clause 2A shall be applicable	:	Applicable

Clause	e 5		
(i) Claus Recor	Number of days from the date of issue of letter of acceptance for reckoning date of start e 5.2 ding of hindrances	:	<ul><li>15 days from Letter of Award or handing over of site, whichever is later.</li><li>Physical/ Electronic/ both</li></ul>
Clause 5.1 (iii) Schedule of rate of recovery for delay in submiss of the Time and Progress Chart		sic	
Sl. No	Contract Value		Recovery per week
	Up to Rs 20 Crores		Rs.2500/-

### Table of Mile stones:

SI.No.	Milestone Programme	Time Allowed (from date of start)	Amount to be withheld in case of non- achievement of milestone
1	Appointment of consultant, submission and	45	0.10 % of total contract
	approval of architectural, structural & MEP / E &		amount.
	M services Drawings i/c filing application for		
	approval of local bodies/ authorities.		

2	Completion of foundation work up to plinth level	120	0.15 % of total contract
			amount.
3	Completion of Superstructure	180	0.25 % of total contract
			amount.
4	Completion of Brickwork, electrical conduiting,	220	0.50 % of total contract
	water supply & sanitary lines, flooring and		amount.
	plastering works except final coat of painting.		
5	Completion of all Internal Electrical Installation	260	0.50 % of total contract
	& Internal Fire Fighting System, Lifts		amount.
6	Completion of site development works & bulk	300	0.50 % of total contract
	services and handing over of the building		amount.
	including obtaining the requisite approvals and		
	Occupancy Certificate by the Local Bodies		

#### NOTE:

- 1. Withheld amount shall be released if and when subsequent milestone is achieved within respective time specified. However, in case milestones are not achieved by the Contractor for the work, the amount shown against milestone shall be withheld.
- 2 Intending bidder may submit phasing of activities/milestones based on their resources and methodology at the time of bidding corresponding to physical milestones/stages indicated in the above table. These shall be formed part of the agreement after approval of the accepting authority, otherwise it would be assumed that agency agrees with the above mentioned physical milestones.

#### Time allowed for execution of work :210 days

#### Authority to decide:

(i) Extension of time	:	Superintending Engineer, IIT Hyderabad or successor thereof.
(ii)Rescheduling of mile stones	:	Director, IIT Hyderabad or successor thereof.
(iii) Shifting of date of start in Case of delay in handing over of site	:	Superintending Engineer, IIT Hyderabad or successor thereof.
Clause 6	:	Not applicable
Clause 6A	:	Applicable.
Clause 7	:	

/adjustme	k to be done together with net payment nt of advances for material collected, if any, last such payment for being eligible to		Rs. 20 lakh for first three RA bills and Rs 40 Lakh for subsequent RA bills. This value includes admissible amount of Secured Advance.	
Clause 8	Clause 7A Clause 8 A Completion plans : This shall not apply for maintenance or upgradation cor		Yes Applicable No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with GST, EPFO, ESIC and BOCW Welfare Board, whatever applicable as submitted by the Bidder to the Engineer-in Charge.	
For other	works, the limit shall be as below:			
Sl. No	Contact Value		Payment Limit in case of failure	
	Up to Rs.20 Crores		Rs.50.000/-	

Clause 10

Not applicable

:

Clause 10 A

List of testing equipment to be provided by the agency at site lab	:	As per Appendix – D at page 178 CPWD Specification 2009 Volume-I and List attached as Appendix I; Alternatively, the testing facilities at the precast plant of the agency shall be inspected for adequacy and accepted by the Engineer-in-Charge.
Clause 10 B (i)	:	Applicable
Clause 10 B (ii)	:	ApplicableThe mobilization advance shall be given as mentioned below:1st instalment = 5% of contract value2nd instalment = 5% of contract value
Clause 10B (iii)	:	Not Applicable
Clause 10B (iv & v)	:	Applicable
Clause 10C		
Component of labour expressed as percent of value of work	:	Not Applicable
Clause 10CA	:	Not Applicable
Clause 10CC	:	Not Applicable
Clause 11 Specifications to be followed for execution of work	:	<b>Civil work:</b> CPWD Specifications2009Volume- I & II with corrections slips up to last date of submission of bid.

	Electrical work:			
	1. CPWD General Specification for Electrical Works Part I			
	Internal – 2013.			
	2. CPWD General Specification for Electrical Works			
	Part II External – 1994.			
	3. General Specification for Electrical Works (Part III			
	Lifts & Escalators)-2003.			
	4. CPWD General Specification for Electrical Works			
	Part IV Substation – 2013.			
	5. CPWD General Specification for Electrical Works			
	Part V wet riser & sprinkler systems – 2006.			
	6. CPWD General Specification for Electrical Works			
	Part VII DG Sets – 2013.			
	7. General Specification for Heating Ventilation &			
	Air- Conditioning-2017.			
	Horticulture Work:			
	CPWD Specification of Horticulture & Landscaping – 2016			
All above	specifications shall be applicable with corrections slips up to			
the last	the last date of submission of bid.			

### Clause 12

Applicable only for the original construction work. **Type of work: Project and original work –** 

Clause 12.1 :	Applicable
Clause 12.2 & 12.3 : Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	30% (Thirty percent) applicable for plinth area. Any additional / Extra item other than the specified item will be treated as Extra item and rate will be derived based on marked rate prevailing at the time of execution of item. For any change in specification, any extra / deduction amount will be paid / deducted as per the difference in market rates (prevailing at the time of decision communicated to the contractor) of the original specified item and the changed / modified item.

Clause 12.5 : (i to v) Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except items mentioned in earth work sub head in DSR and related items)	•	Not applicable since items are on area/ running metre/ job basis.
Clause 12.6 :	:	Applicable
Clause 16: Competent Authority for deciding reduced rates.	:	Superintending Engineer, IIT Hyderabad.
Clause 17	:	Defects liability period shall be 24 months after declaring the original construction work completed by the Superintending Engineer, IIT Hyderabad.
Clause 18 Suggestive List of machinery, tools & plants to be deployed by the Bidder at site.	:	As per Appendix-II

employer paid by the agency shall be reimbursed by the Engineer-in-charge to the agency on receipt of request from the agency along with relevan supporting documents.	Clause -19L	e Engineer-in-charge to the ag quest from the agency alo	act shall be paid b on the part of th Il be reimbursed b gency on receipt o
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Clause: 25 :: Constitution of Dispute Redressal Committee (DRC)				
Name of the Office	Chairman	Member Secretary	Member-II	Presenting Officer
Executive	Mr. KU	Mr D K Ghosh	Dr. B	Executive
Engineer, -	Panicker		Venkatesham	Engineer, -
Construction and				Construction and
Maintenance				Maintenance
Division, IIT				Division, IIT
Hyderabad.				Hyderabad.

Place of Arbitration	: Hyderabad
Authority to appoint arbitrator	: Director, IIT Hyderabad
Venue of Arbitration	: IIT Hyderabad
Type of Arbitration Tribunal	: Sole Arbitrator

Note: Provisions of Arbitration and Conciliation Act 1996 with latest amendments in force shall be applicable.

Clause 31 : Not applicable

### Clause36 (i)

A. The Requirement of Technical / Architectural Personnel required <u>to be deployed for</u> <u>planning stage</u> (Till all the Architectural & structural drawings are prepared & got approved) and their recovery rates at which recovery shall be made from the Contractor in the event of not fulfilling the provision of clause36(i) are as below:

SI. №.	Qualification	Discipline	Number	Minimum Experience (Years)	Designation	Rate of recovery .
1	Graduate Architect	Architect	1	12	Lead Architect	Rs. 60,000/- per month
2	Graduate Architect	Architect	2	6	Architect	Rs. 40,000/- per Month per person
3	Structural Engineer (Post Graduate)	Structures	1	12	Structural Engineer	Rs. 60,000/- per month
4	Graduate Engineer	Electronics & Communica tions	1	12	CCTV, LAN, WiFi & BMS Consultant	Rs. 60,000/- per Month per person
5	Graduate Engineer	Electrical	1	12	Lead Electrical Engineer	Rs. 60,000/- per month
6	Graduate Engineer	Electrical	1	6	Electrical Engineer	Rs. 40,000/- per Month per person

B. The Requirement of Technical Representative(s) during construction and Recovery Rates at which recovery shall be made from the Contractor in the event of not fulfilling the provision of clause36(i) are as below:

S. №.	Qualification	Discipline	Number	Minimum Experience (Years)	Designation	Rate at which recovery shall be made from the Contractor in the event of not fulfilling provision of clause 36(i)
1	Graduate Engineer	vil	1	15	Project Manager with degree in major discipline of Engineering	Rs. 1,00,000/- per month
2	Graduate Engineer	Civil	1	12	Deputy Project Manager	Rs. 60,000/- per Month per person
3	Graduate Engineer		1	12	Deputy Project Manager	Rs. 60,000/- per Month per person
4	Graduate / Diploma Engineer	Electrical	1	5 Or 10 Respectively	Project/Site Engineer	Rs. 40,000/- per month per person
5	Architect Graduate		1	5	Site Architect	Rs. 40,000/- per month per person
6	Graduate Engineer		1	5	Quality Engineer	Rs. 40,000/- per month per person

#### Note:

- 1. In addition to above, the specialized firm engaged by the main contractor for Pre-Cast RCC work, shall deploy sufficient number of experienced engineers/ technicians and workforce along with T&P required for erection of Pre-Cast members. Since the casting, transportation and erection of Pre-Cast members is a specialized job, the main contractor shall ensure that the pre-cast specialized firm deploy sufficient workforce. For slow progress and any untoward incident, the main contractor shall be responsible.
- 2. The requirement shown above is the peak requirement. Deployment of personnel as per actual need shall be made by the Contractor as directed by Engineer- in- Charge.
- **3.** The specialized technical staff for execution for component such as plumbing, water proofing, fire fighting, HVAC, Acoustic, landscaping etc. shall be deployed as per the requirement of work.

- 4. Assistant Engineers retired from Government services who are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10-years relevant experience with a reputed construction company can be treated at par with Graduate Engineers for the purpose of such deployment subject to that such diploma holder should not exceed 50% of requirement of degree engineers.
- 5. The bidder shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form 16 or CPF deduction issued to the Engineers employed by him) along with every account bill / final bill and shall produce evidence of regular physical availability of such engineers on the above project whenever required by the Engineer in charge.

### Clause 42 Applicable as given below

Schedule/statement for determining theoretical quantity of cement & bitumen based on Delhi Schedule of Rates	
Variations permissible on theoretical quantities.	
Cement	
Cement for works with estimated cost put to tender more than Rs. 5 Lakh.	2% Plus/Minus
Bitumen for all works.	2.5% Plus only and nil on minus side.
Steel reinforcement and structural steel	2% Plus/minus side sections for each diameter, section and category.
All other materials	Nil

### RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

		Rates in figure and recovery shall be contractor	words at which made from the
S. No	Description of item	Excess beyond permissible variation	Less use beyond the permissible variation
1	Cement (PPC)	NIL	Not Permitted
2	Reinforcement bars(TMT) (a)Primary Producer	NIL	Not Permitted
3	Structural steel	NIL	Not Permitted

### **NIT FORM & ACCEPTANCE**

### NIT FORM

### **Indian Institute of Technology Hyderabad**

#### ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) (Turn Key) Bid

(A) Tender for the work of:- Construction of 336 Nos.Boarder Pre-Case Hostel Building (G+6)at IIT Hyderabad

- (i) To be submitted by 15:00 Hours on <u>17-10-2019</u> to <u>The Executive</u> <u>Engineer, Construction and Maintenance Divison, IIT Hyderabad</u>
- (ii) To be opened in presence of tenderers who may be present at 15.30 hours on <u>17-10-2019</u> in the office of The Executive Engineer, Construction and Maintenance Division, IIT Hyderabad.

#### BID

I/We have read and examined the notice inviting bid, schedule-A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract clauses of contract, Special conditions, Bill of Quantities & other documents and Rules referred to in the conditions of contract and all other contents in the bid document for the work.

I/We hereby bid for the execution of the work specified for the President of India within the time specified in Schedule F, user requirement and approved drawings and accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract of 2019 with amendments up to the last date of submission of bids and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the bid open for **Ninety (90) days** from the date of opening of technical bid and not to make any modification in its terms and conditions.

 performance guarantee absolutely, the said performance guarantee shall be a guarantee to execute all the works referred to in the bid documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12.2 and 12.3 (as modified) of the bid form.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-bidding process of the work.

I/we undertake and confirm that eligible similar work(s) has/have not been got executed through another agency on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in IIT Hyderabad in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposited/Performance Guarantee.

I/We hereby declare that I/We shall treat the bid documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated: ......\*\*

Signature of Contractor

\*\* Witness: \*\*

Address: \*\*

Postal Address \*\*

**Occupation:** \*\*

[\*\* To be filled by Bidder]

### **ACCEPTANCE**

The above tender (as modified by you as provided in the letters mentioned hereunder)is accepted by me for and on behalf of the President of India for a sum of .....).

The letters referred to below shall form part of this contract agreement:-

(a) \* (b) \* For & on behalf of Director, IIT Hyderabad

Signature.....\* Dated: 

\*

<sup>\*</sup> Blanksto be filled by EE

<sup>\*\*</sup> To be filled by Contractor

# Volume 1:: Part-B Section 2 Special Conditions of Contract

### **2** SPECIAL CONDITIONS

- 2.1 Before tendering, the contractor shall inspect the site of work and shall fully ac- quaint himself about the conditions prevailing at site, availability of materials, avail- ability of land and suitable location for construction of godowns, stores and camp, transport facilities, the extent of lead and lifts involved in the work (over the entire duration of contract) including local conditions, as required for satisfactory execu- tion of the work and nothing extra whatsoever shall be paid on this account.
- 2.2 The contractor shall at his own expense and risk arrange land for accommodation of labour, setting up of office, the storage of materials, erection of temporary work- shops, and construction of approach roads to the site of the work including land re- quired for carrying out of all jobs connected with the completion of the work. In any case. IIT Hyderabad(Institute) shall not permit setting up of labour camps within its premises. If during construction it becomes necessary to remove or shift the stored materials shed workshop, access roads, etc. to facilitate execution of any other work by any other agency, the contractor shall do as directed by the Engineer-in-charge and no claim whatsoever, shall be entertained on this account.
- 2.3 It shall be deemed that the contractor shall have satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp etc. The department will bear no responsibility for lack of such knowledge and the consequences thereof.
- 2.4 The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-charge. Nothing extra shall be paid on this account.
- 2.5 The contractor shall be responsible for the true and proper setting out of the work in coordination with the Engineer-in-charge or his authorized representatives and for the correctness of the positions, levels, dimensions and alignments of all parts of the structure and for the provisions of all necessary instruments appliances and labour in connection therewith. If at any time, during the progress of work, any error appears or arises in the position, levels, dimensions or alignment of any part of the work, the contractor on being asked to do so by the

Engineer-in-charge, shall rectify such error to the entire satisfaction of Engineer-in-charge. The checking by the Engineer-in-charge or his authorized representative shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks pegs and pillars provided for the setting out of works.

- 2.6 All setting out activities concerning establishment of benchmarks, theodolite stations centre line pillars etc. including all materials, tools, plants, equipment, theodolite/ Total station and all other instruments, labour etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work and till the completion of the work shall be carried out by the contractor and nothing extra shall be paid on this account.
- 2.7 The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of the Engineer-in-charge. Subsequently, the materials to be used in the actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.
- 2.8 The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-charge may require for collecting, preparing, packing forwarding and transportation of the required number of samples for tests for analysis at such time and to such places as directed by the Engineer-in-charge, and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The cost of tests shall be borne by the contractor/Institute in the manner indicated below (except for water):

2.8.1 By the contractor, if the results show that the material does not conform to relevant specifications and BIS codes or any other relevant code for which conformity test is carried out.

2.8.2 By the Institute, if the results show that the material conforms to relevant specifications and BIS codes or any other relevant code for which conformity test is carried out.

- 2.9 The necessary tests shall be conducted in the laboratory approved by the Engineer- in-charge. The samples for carrying out all or any of the tests shall be collected by the Engineer-in-charge or on his behalf by any other officer of the Institute. The contractor or his authorized representative shall associate himself in collection, preparation, packing and forwarding of such samples for the prescribed tests and analysis. In case he or his authorized representative is not present or does not associate him, the results of such tests and consequences thereon shall be binding on the contractor.
- 2.10 Materials used on work without prior inspection and testing (where testing is neces- sary) and without approval of Engineer-in-charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-charge shall have full powers to require removal of any or all of the materials brought to site by contractor which are not in accordance with the contract, Specifications or do not conform in character or quality to the samples approved by the Engineer-in-charge. In case of default on the part of the contractor in removing rejected

materials, the Engineer-in- charge shall be at liberty to have them removed at the risk and cost of the contractor.

- 2.11 The contractor shall make his own arrangement for the water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer-in-charge before he proceeds with the use of same for execution of work. Nothing extra shall be paid to the contractor on this account.
- 2.12 The work shall be carried out in such a manner so as not to interfere/or effect or disturb other works being executed by other agencies, if any.
- 2.13 Any damages done by the contractor to any existing work or work being executed by other agencies shall be made good by him at his own cost.
- 2.14 The work shall be carried out in the manner complying in all respects with the re- quirement of relevant rules and regulations of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
- 2.15 For completing the work in time, the contractor might be required to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwith- standing the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons
- 2.16 The contractor will have to make his own 'arrangement for obtaining electric con- nection from the state electricity board and make necessary payments directly to the department concerned and/or install generators at the site of work, if required and nothing extra whatsoever will be payable on this account.
- 2.17 Since the contract is on EPC mode, only concept drawings for the work are attached in the document. All other drawings shall be prepared by the contractor and got approved by the Engineer-in-Charge before execution.
- 2.18 The contractor shall maintain in good condition all work executed till the completion of the entire work entrusted to the contractor under this contract and nothing extra shall be paid on this account.
- 2.19 No payment will be made to the contractor for damage caused by rain, floods and other natural calamities whatsoever during the execution of the works and any dam- age to the work on this account shall have to be made good by the contractor at his own cost and nothing whatsoever ' shall be paid on this account.
- 2.20 The rates quoted in the EPC bid shall include the cost of all labour materials, de-watering and other inputs involved in the execution of the items.
- 2.21 Unless otherwise provided in the schedule of quantities or CPWD Specifications, the rates tendered by the contractor shall be all-inclusive and shall apply to all heights, depths, leads and lifts.

- 2.22 No claim whatsoever for idle labour, additional establishments, costs of hire and labour charges for tools and plants etc. would be entertained under any circum- stances.
- 2.23 For the safety of all labour directly or indirectly employed in the work for the perfor- mance of the contractor's part of this agreement, the contractors shall, in addition to the provisions of Safety code and directions of the Engineer-in-charge make all arrangements to provide facility as per the provisions of Indian Standard Specifications (Codes) listed below and nothing extra shall be paid on this account.
  - IS 3696 Part I Safety Code for scaffolds and ladders
  - IS 3696 Part II Safety Code for scaffolds and ladders Part II ladders
  - IS 764 Safety Code for excavation work
  - IS 4081 Safety Code for Blasting and Drilling operations,
  - IS4138 Safety Code for working in compressed air.
  - IS 7293 Safety Code for working with construction machinery
  - IS 7969 Safety Code for storage and handling of building materials
- 2.24 The contractor shall take all precautions to avoid all accidents by exhibiting neces- sary caution boards and by providing red flags, red lights and barriers. The con- tractor shall be responsible for any accident at the site of work and consequences thereof.
- 2.25 Royalty at the prevalent rates and all other incidental expenditure shall have to be paid by the contractor, on all the boulders, metal shingle, earth, aggregates, sand, bajri, Brick bats etc. collected by him for the execution of the work direct to the concerned Revenue Authority of the State or Central Government and the amount paid shall not be reimbursed in any form whatsoever.
- 2.26 In case of Specifications the following hierarchy will be followed:
  - (1) Nomenclature of the item.

(2) Additional Specifications, particular Specifications, special / additional conditions if any as defined in the contract documents.

- (3) Drawings
- (4) CPWD Specifications,
- (5) BIS Specifications (Latest version) if CPWD Specifications not available.
- (6) Manufacturers Specifications if BIS Specifications not available.
- (7) Sound Engineering practices Standard Textbooks.
- (8) If none of the above is available decision of Engineer-in-Charge will be final.

*Note: If there is a conflict between CPWD specifications and the BIS Codes, the provisions of the BIS Codes shall prevail.* 

2.27 All Stone aggregates, sand, stone dust, etc shall be obtained only from the quarry or other source approved by the Engineer in charge before they are actually procured and used in the

work. The percentage rate for the items mentioned in the schedule of quantities includes all charges and nothing-extra payable on any account.

- 2.28 Labour Welfare Cess @ 1% shall be deducted at source from the bills of Gross value (which includes the cost of stipulated materials) of the work done and Government shall not entertain any claim whatsoever in this respect in this contract.
- 2.29 The ESI and EPF Contribution on the part of the employer in respect of the contract shall be paid by the contractor. This contribution on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in- Charge to the contractor on actual basis. The applicable and eligible amount of EPF and ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.
- 2.30 No Running Account Bill shall be paid for the work till the applicable labour license, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge.
- 2.31 The contractor shall obtain a valid licence under the contract labour (R A) Act, 1970 and the contract labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid licence until the comple- tion of the work . The contractor shall also comply with provision of the Inter- state Migrant Women (Regulation of Employment and conditions of service) Act 1979.

### Volume 1:: Part-C Section 3

## **Additional Conditions of Contract**

### **3** Additional Conditions

- 3.1 The contractor shall make his own arrangements for obtaining electric connections if required and make necessary payments directly to the department concerned.
- 3.2 Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work of pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies. Conduits for electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.
- 3.3 Some restrictions may be imposed by the Institutes security staff etc., on the work- ing and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on this account.
- 3.4 The building work will be carried out in the manner complying in all respects with the requirements of relevant byelaws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra will be paid on this account.
- 3.5 The work of water supply, Internal Sanitary Installations and drainage work etc., shall be carried out as per local Municipal Corporation or such local body bye- laws and the contractor shall produce necessary completion certificate from such authorities after completion of the work.

- 3.6 Water tanks, taps sanitary, water supply and drainage pipes, fittings and accessories should conform to byelaws and specifications of the Municipal Body/Corporation where CPWD specifications are not available. The contractor should engage licenced plumbers for the work and get the materials (fixtures/fittings) tested by the Munici- pal Body/Corporation authorities wherever required at his own cost.
- 3.7 The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charge, which he may be liable.
- 3.8 The contractor shall give a performance test of the entire installation(s) as per stand- ing Specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
- 3.9 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable (or) extra cement considered in consumption on this account.
- 3.10 The Contractor shall furnish his proposed methodology and programme of construction in comprehensive manner of executing and completing the work within the stipulated period and also for achieving the milestones simultaneously with in the specified periods in schedule F within 7 days of award of tender. The programme shall consist of the various components for each part of the work stipulated to be completed and a bar chart may be appended in this connection.
- 3.11 The contractor shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building material shall be stacked on areas where other buildings, roads, services compound walls are to be constructed.
- 3.12 As a policy of the Institute, huts for labour are not permitted at the site of work by the contractors. The contractors are required to provide such accommodation outside the premises of the Institute and nothing extra shall be paid on this account.
- 3.13 Royalty at the prevalent rates shall have to be paid by the contractor on all the boul- ders, metals, shingle sand and bajri etc., collected by him for the execution of the work direct to the Revenue authority or authorized agent of the State Government concerned or Central Government.
- 3.14 The Contractor should construct proper mortar bands of lean mix with adequate depth smaller size over the curved roof for flooding with water proper curing. In case of Arches, wet gunny bags shall be used for a period of two weeks.
- 3.15 Samples of all materials like UPVC Pipes, fittings, tiles etc., shall be got approved in advance before placing order for them. Similarly, samples of all works shall be prepared in advance and got approved from the Engineer-in-Charge before taking up the work
- 3.16 The contractor shall procure all the materials in advance so that there is sufficient time for testing and approving the material and clearance of the same before use in work.
- 3.17 Since the contract is on EPC mode, rate quoted is deemed to include rate for skirting, dados, includes cost of chasing of Brick walls to the required thickness wherever required in order to accommodate required thickness of base cement mortar and nothing extra is payable.

- 3.18 Since the contract is on EPC mode, rate quoted is deemed to include rate for the different flooring items under flooring sub head, includes the cost of extra cement mortar required to be laid for making the finished floor level at par with the kota stone/ granite/ tile flooring at all floors and at all levels, and nothing extra shall be payable on any account.
- 3.19 No payment shall be made for preparing the existing surface like flooring, masonry etc. for hacking, cleaning to receive new work.
- 3.20 No payment shall be made for extra for scaffolding required for external works at all levels.

#### Reports to be submitted by Contractor

- 3.21 The contractor shall submit monthly progress report of the work in a computer- ized form. The progress report shall contain the following, apart from whatever else may be required as specified: i) Project information, giving the broad fea- tures of the contract.
- 3.22 Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
- 3.23 Construction schedule of the various components of the work through a bar chart for the next 2 quarters (or as may be specified), showing the milestones, targeted tasks and up to date progress.
- 3.24 Progress chart of the various components of that are planned and achieved, for the month as well as cumulative up to the month, with reasons for deviations, if any, in a tabular format.
- 3.25 Plant and machinery statement, indicating those deployed in the work, and their working along with their designations.
- 3.26 Manpower statement, indicating individually the names of all the staff deployed in the work, along with their designations.
- 3.27 Financial statement, indicating the broad details of all the running account payments received up to date, such as gross value of work done, advances taken, recoveries effected, amounts withheld, net payments, details of cheque payments received, etc.
- 3.28 A statement showing the extra and substituted items submitted by the contrac- tor, and the payment received against them, items pending for sanction/decision by the Department, broad details of the bank guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the con- tractor, if any, the advances received and adjusted from the department, etc.
- 3.29 Progress photographs, in colour, of the various items/components of the work done up to date, to indicate visually the actual progress of the work.
- 3.30 Quality assurance and quality control tests conducted during the month, with the results thereof.

#### **PROGRESS REPORT**

3.31 The progress report submitted by the contractor has to be checked and certified by the Junior Engineer or Assistant Engineer, and has to be reviewed by the Executive Engineer and the Superintending Engineer, over their dated signatures.

#### A. Physical.

Name Item	of	Quantity as per agreement	Quantity executed during the month	

#### **B. Financial**

Total Tendered amount	Work done during the month	Total amount of work done up to date	Anticipated amount of balance work

3.32 The contractor has to submit the progress report to Engineer-in-charge both in hard and soft copies by 10th day of every month as per the above proforma along with photographs of the work done during that month. In case 10th day happens to be a closed holiday then the progress report will be submitted on the next working day.

# Volume 1:: Part-D

### **Section 4**

# **GENERAL INFORMATION**

#### **GENERAL INFORMATION TO BIDDERS FOR SUBMISSION OF BIDS**

- 4.1 The tenderers should read all the instructions, terms & Conditions, contract clauses, nomenclature of items, specifications etc. contained in the tender documents very carefully, before quoting the rates. The tenderer should also read the General Conditions of Contract for works on EPC mode attached along with the tender documents which will be part of the agreement.
- 4.2 The agency shall quote the rate for complete scope of work in both words and figures in the financial bid.
- 4.3 The bidder shall quote his rates keeping in mind the scope of work, specifications, terms & conditions, additional conditions and special conditions etc. and nothing shall be payable extra whatsoever unless otherwise specified.
- **4.4** The contractor shall also furnish Performance Guarantee of 5% of the tendered amount (50% of Performance Guarantee shall be retained as security deposit which will be returned after successful completion of defect liability period) in addition to the other deposits mentioned elsewhere in the contract for proper performance of the agreement. The Performance Guarantee shall be in the shape of Bank guarantee as per Performa given in **Vol-III page 210 to 213**.
- 4.5 In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must be disclosed that the firm is duly registered under the Indian partnership act, 1952.
- 4.6 The bidder shall quote their rates considering all prevalent taxes/ cess like GST, Workers Cess or any other tax on material /work as applicable and nothing extra shall be paid to the contractor on this account. IIT Hyderabad (the Institute) shall deduct Workers Cess, Royalty or any other tax as applicable, from the R/A bills & final bill. However, the contractor shall pay GST to the concerned authorities directly as per prevailing rules.
- 4.7 TDS as applicable shall be deducted from all bills of contractor.
- 4.8 The tender which is not duly signed by authorized signatory or with conditions shall be treated as non-responsive and shall be summarily rejected.

#### **INFORMATION AND INSTRUCTIONS FOR BIDDERS**

- 4.9 Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures/Consortium and special purpose vehicles are not accepted.
- 4.10 The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

#### 4.11 Eligibility criteria for work experience -

To become eligible for participating in the bid process, the bidders shall satisfy the following work experience criteria. However, CPWD registered contractors enlisted in composite category Class - I (AAA) and Class – I (Super) need not submit technical eligibility / work experience documents.

- (a) The bidder should have satisfactorily completed the following works in last 7 (seven) years ending previous day of last date of submission of bid. For this purpose, cost of work shall mean gross value of the completed work including cost of material supplied by the Government/client but excluding those supplied free of cost:-
- (i) Three similar completed works of each of value not less than Rs.4.85 Crore. or

Two similar completed works of each of value not less than Rs.7.25 Crore.

or

One similar completed works of each of value not less than Rs.9.65 Crore.

Similar work shall mean "Construction of precast RCC structure designed as either beam-column system or wall panel-slab system including internal and external water supply, sanitary installations, drainage, internal electrical installations, lifts, firefighting systems, all composite executed under one agreement in India. Godowns or Ware Houses or factory sheds shall not be considered as eligible similar works".

Components of work executed other than those included in definition of similar work shall be deducted while calculating the cost of similar work. RCC framed structure shall be of precast RCC slab, beams & columns. The bidder shall submit abstract of cost of work along with supporting documents and certificate issued by the experience issuing authority in support of this.

- 4.12 The value of executed works shall be brought to current costing level by enhancing the actual value of work done at simple rate of 7% per annum; calculated from the date of completion to previous day of last date of submission of bids.
- 4.13 Qualified similar works may be physically inspected by officers of IIT Hyderabad to ascertain the completion, performance and quality of works for finalizing technical bids.

#### 4.14 Eligibility criteria for financial eligibility -

To become eligible for participating in bid process, the bidder shall satisfy the following financial eligibility criteria. However, CPWD registered contractors enlisted in composite category Class - I (AAA) and Class – I (Super), need not submit financial eligibility documents.

- a) The bidder should have had average annual financial turn over (gross) of Rs.6.0 Crore on construction works during the last three Consecutive years ending March, 2019, balance sheets should be duly audited by Charted Accountant. Year in which no turnover is shown would also be considered for working out the average. (copy of Audited Balance Sheet to be submitted).
- b) Should not have incurred any loss (profit after tax should be positive) in more than two years during the last five consecutive years ending 31<sup>st</sup> March 2019, duly audited and certified by the Chartered Accountant.
- c) Should have a solvency of Rs. 4.85 Cr. (copy of original solvency certificate issued by bankers, not older than six months from the last date of submission of bids, to be submitted).

# 4.15 For specialized components of civil and E & M works, the eligibility criteria of associated agencies shall be as detailed below (Components of work executed other than specialized work shall be deducted while calculating the cost) –

Sl.No.	Components of Specialized Works	Estimated cost Rs. (in Crore)	Eligibility					
Architectural Consultancy								
1	Architectural Consultancy	_	The main contractor should associate with a consultancy firm headed by an architect who should possess Bachelors degree in Architecture, registered with council of architecture with minimum 15 years of experience in the field of planning and architecture. Further, the firm should possess experience of having satisfactorily completed, as mentioned below, during the last 7 (seven) years ending previous day of last date of submission of bids under a single contract. The architectural consultancy of one major academic institutional campus having built-up area not less than 20,000 Sqm (OR) two major institutional campus having built-up area not less than 15,000 Sqm each (OR) three major institutional campus having built-up area not less than 10,000 Sqm each."					
For Civil	Works Precast RCC building works (Only the component of Precast RCC items shall be considered excluding cost of cast-in-situ foundations, other civil, E & M services and finishing works etc.) Note: Godowns/ Ware houses/ industrial structures shall not be considered as eligible works.	9.0	The main contractor should associate with an agency who should have satisfactorily completed the said specialized work of amount as mentioned below during the last 7 (seven) years ending previous day of last date of submission of bids under a single contract. Three similar specialized works each costing not less than Rs.3.60 Crore of the estimated cost. OR Two similar specialized works each costing not less than Rs.5.40 Crore of the estimated cost. OR					

			One similar specialized work each costing not less than Rs.7.20 Crore of the estimated cost. However, the Composite category contractor shall also be eligible to carry out this item of work himself without associating with any specialized agency provided: He fulfils the prescribed eligibility criteria respectively for this item of work.
2	Water proofing treatment works	1.40	The main contractor should associate with an agency who should have satisfactorily completed the said specialized work of amount as mentioned below during the last 7 (seven) years ending previous day of last date of submission of bids under a single contract. Three similar works each costing not less than Rs.56 lakhs of the estimated cost. OR Two similar works each costing not less than Rs.84 lakhs of the estimate cost. OR One similar works each costing not less than Rs.1.12 Crores of the estimate cost.
For Elec	trical works		
1.	Lifts	-	The main contractor for the work shall associate with approved manufacturers of Lifts i.e. OTIS /KONE /SCHINDLER / MITSUBISHI LIFTS for execution of this Subhead of work. No other associated agency shall be eligible to execute the work.
2.	Fire Fighting System and Fire Alarm Systems	-	The main contractor shall have to associate with agency fulfilling the following eligibility criteria having successfully completed during last seven years ending up to previous day of last date of submission of tender as given below with completion certificate issued by an officer not below the rank of Executive Engineer or equivalent duly attested. Three similar completed works each of value not less than Rs. 38.00 Lakhs or Two similar completed works each of value

not less than Rs. 57 Lakhs
or
One similar completed work of value not less
than Rs. 76.00 Lakhs
Similar work shall mean "SITC of Fire
Fighting System (Water based)"
However, the Composite category contractor
shall also be eligible to carry out himself
without associating any specialized agency
provided:
(a) He fulfils the prescribed eligibility criteria
respectively for this work
(b) He directly procures the equipment of
approved make from manufacturer and gets it
installed from authorized agency/service
provider of the manufacturer/specialized
agency, all as per the eligibility criteria

- 4.16 The intending bidder must read the terms and conditions carefully. He should submit his bid if he considers himself eligible and he is in possession of all the documents required
- **4.17** The bid document consisting of plans, specifications, schedule of quantities of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen free of cost from website of IIT Hyderabad.
- 4.18 Intending Bidders are advised to keep visiting the above mentioned web-site from time to time (till the last time and date for submission of bids) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.
- 4.19 The eligibility (Technical) bid shall be opened first on due date and time as mentioned above.The time and date of opening of financial bids of bidders qualifying the eligibility (Technical) bid shall be communicated to them at a later date.
- 4.20 Pre-bid conference shall be held with the eligible and intending bidders in the office of Superintending Engineer, Construction & Maintenance Division, IIT Hyderabad, Kandi, Sangareddy- 502 285, Telangana State at 11:00 Hrs. on <u>10-10-2019</u> to clear the doubts of intending bidders, if any. Bidders should send by email all their queries, three days prior to the date of pre-bid conference,

#### Email id- **EECIVIL@IITH.AC.IN**

4.21After pre-bid conference, modifications if required in the bidding documents and clarifications to the queries raised by intending bidders will be issued to all participating bidders by e-mail. Same will also be posted on the website. If further pre-bid conferences are required for complete and effective interactions, the date and time of same will be communicated All at the end of 1st pre-bid meeting or later.

modifications/addendums/corrigendum issued regarding this bidding process, shall be posted on website only and shall not be published in any Newspaper.

- 4.22 IIT Hyderabad reserves the right to reject any prospective application without assigning any reason thereof and to restrict the list of qualified bidders to any number deemed suitable by it, if too many bids are received satisfying the minimum laid down criteria.
- 4.23 Contractor must ensure to quote rate of each item.
- 4.24 Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra claims / payments consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of bid implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on cost and on the execution of the work.
- 4.25 If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in IIT Hyderabad. The Institute reserves the right to verify the particulars furnished by the applicant independently.
- 4.26 This work required engaging more than 20 nos of labourers / workers and therefore all necessary licenses/ registrations such as labour license, EPFO, ESI, BOCW welfare registration etc., shall be taken by contractor within the time limit prescribed in clause 1 of Schedule F.

- a The bidder is found ineligible.
- b. The bidder does not deposit EMD.
- c The bidder does not submit the documents as stipulated in the bid document.
- 4.28 List of Documents to be submitted within the period of bid submission.
  - 1. EMD in Bank Guarantee of any Scheduled Bank in Form-H.
  - 2. Letter of Transmittal in Form-A
  - 3. Certificate of Financial Turnover from CA in Form -A1.
  - 4. Bank Solvency Certificate in Form-B
  - 5. List of eligible similar nature of works completed during the last seven years previous day of last date of submission of bid in **Form -C**.
    - a If private works are shown in support of eligibility, certified copy of the tax deducted at source certificate (TDS) shall be submitted along with the experience certificate and the TDS amount shall tally with the actual amount of work done).
    - b. Works executed outside India shall not be considered as eligible works.
  - 6. Performance report of works (mentioned in Form-C) in Form-D.
  - 7. Affidavit for Execution of similar works in Form-E.
  - 8. Structure and Organization of the bidder in Form-F

- Copy of CPWD enlistment order under composite category Class I (Super), Class I (AAA) to be submitted ONLY by CPWD contractors enlisted in composite category Class I (Super), Class I (AAA).
- 10. GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up, or as required by GST Authorities, then in such a case the bidder shall submit following undertaking along with other bid document

- "If work is awarded to me, I/We shall obtain GST registration certificate of Telangana state within one month from the date of receipt of award letter or before release of any payment by IITH, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/ us on a/c of the work executed and/or for any action taken by IITH or GST department in this regard".
- 11. Permanent Account Number (PAN) as issued by the Income Tax Department.
- 12. Integrity Agreement in Form-J
- 13. Affidavit of Non- Black Listing (Form 'M').

#### NOTE:

- Documents mentioned at Sl.No.4,5,6,7,8,9 need not be submitted by CPWD contractors enlisted in composite category of Class – I (Super) & Class – I (AAA). Class – I (Super) & Class – I (AAA) contractors of CPWD are eligible to submit the bids without submission of work experience certificate and affidavit. Therefore, CPWD Class – I (Super) & Class – I (AAA) contractors shall submit two separate letters for experience certificate and affidavit that these documents are not required to be submitted by them. <u>Submission of these two letters is mandatory</u>.
- 2 All affidavits shall be made in current date after the date of invitation of tender.

4.29 The bid document will include following four components:

#### Volume-1

#### **Technical Bid:**

Notice Inviting Tender (NIT), Instructions to Bidders, Schedules A to F for the major component (Civil) of the work, NIT Form and Acceptance Special Conditions and Additional Conditions of the Contract

#### Volume-2

#### **Financial Bid**

#### Volume-3

**Scope of Work user Requirement & Technical specifications** and list of preferred makes applicable to major component (Civil works) of the work including drawings

#### Volume-4

General Conditions of Contract 2019 EPC Projects

- 4.30 If the main contractor fails to associate agency/agencies for execution of specialized/minor components of work within prescribed time or furnishes incomplete details or furnishes details of negligible agencies even after the tenderer is given due opportunity, the entire scope of such component of works shall be withdrawn from the tender and the same shall be got executed by the Engineer-in-charge at the risk and cost of the main contractor.
- 4.31 In case the main contractor intends to change any of the above agency/ agencies during the operation of the contract, he shall obtain prior approval of respective Engineer-in- charge. The new agency/ agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in- charge of respective discipline is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
- 4.32 The main contractor has to enter into agreement with contractor(s) associated by him for execution of specialized/minor component(s). Copy of such agreement shall be submitted to Engineer in-charge . In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.

4.33 In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment then on the written complaint of contractor associated for such specialized/minor component, Engineer- in -charge shall serve the show cause to main contractor and after considering the reply of the same he may make the payment directly to the contractor associated for specialized/minor component as per the terms & conditions of the agreement drawn between main contractor and associate contractor fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the associate contractor shall be recovered by Engineer-in-Charge from the next RA/final bill due to main contractor as the case may be.

## Volume 1:: Part-E

### **Section 5**

# **Technical Bid and Bid Forms**

### **BRIEF PARTICULARS OF THE WORK**

#### Scope:

5.1 IIT Hyderabad started functioning from August 2008 from its temporary campus located in Sangareddy district. IIT Hyderabad is planned as a residential campus built on an area of 576 acres to eventually accommodate a total population of 30,000, including 20,000 students with a total built up area of 2.1 million square meters. The campus consists of academic area, residential area for students, residential area for faculty and staff and other support facilities.

The growth of the campus is planned in phases with a corresponding increase in the physical infrastructure and support facilities to accommodate an increase in the number of students in established programs and new programs of the future. IIT Hyderabad campus is envisioned as township that will be self-contained and based on concepts of sustainable development and living.

The master plan for IIT Hyderabad campus has been developed with modular flexibility for expansion to accommodate the future growth.

Campus construction has already started in January 2013 and development of Phase 1 has been completed. The existing facilities can accommodate about 2200 students. The Institute is witnessing a very fast growth and the current strength of students is about 2900. Now IIT intends construct additional hostel block to accommodate 240 students on a fast track mode. Hence, it is proposed to construct this block using precast technology.

- 5.2 The scope of work includes
  - Survey and Soil Investigation,
  - preparation of working drawings, structural design & drawings, preliminary and shop drawings for all required services,
  - Vetting of the structural designs and drawings from any IIT.

- obtaining mandatory approvals from local bodies/ authorities required for commencing the work,
- execution of work & services and handing over the assets after making them habitable in all aspects including occupancy certificate from the local bodies/ authorities,
- 53 The bidder has to include cost of services of engaging consultant(s) for accomplishing above tasks. The rates quoted shall be deemed to be inclusive for all the above (the statutory payments or fees shall be paid by the Institute) and nothing extra shall be payable on this account. The work is to be executed on ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) (Turn Key) basis. The cost of labour, material, tools and plants and machinery required for execution of the whole project as per Layout plan & detailed design and drawings to be approved, specifications etc. is within the scope of this work. The buildings are to be planned and executed to meet 3 STAR GRIHA or Silver IGBC rating.

#### **Building Description:**

5.4 The proposed building is of Ground + 6 structure. Approximate plinth area is 3969 sq. m., and the building foot print is 936 sq. m, which has 168 rooms with double occupancy. To bring the building to immediate occupancy, it is proposed to adopt pre cast technology for construction. Each floor will have 12 rooms in each wing and 24 rooms in both the wings. No dining hall is proposed for the hostel and the boarders will use the central dining facility.

#### Note : "Plinth Area" shall have the meaning as given in the code IS: 3861

#### Note:

- i) The total plinth area of a building shall be sum of plinth area at every floor including basement, if any.
- ii) The mumty and machine room will not be counted as storey and shall not be considered for plinth area calculation.
- iii) Internal sanitary shafts shall not be included in the plinth area in the case of a residential building at any floor level.
- iv) In case of non-residential buildings, plinth area shall not include shafts open to sky. However the shafts/lift wells covered at top shall be counted at one floor level only.

- v) The area of the mumty at terrace level shall not be included in the plinth area. If a Barsati is provided jointly with mumty then the area of the Barsati excluding mumty at the terrace level shall be included in the plinth area.
- vi) Payment for pergolas, approach ramps, external staircases and space frames shall not be made separately and to be considered in the rate of the building.
- vii) For porticos 50% of the plinth area shall be considered for payment.
- viii) Column projections, slab projections & chajjas beyond wall face shall not be considered in plinth area for payment.
- ix) 50 % of plinth area of Uncovered/ unprotected balcony/ verandah shall be considered for payment.
- x) No separate payment shall be made for any lofts provided.
- 5.5 Schematic layout plan, preliminary architectural concept plan of building, topographical survey and soil test report in the nearby plot are attached with bidding documents. These are only indicative just to give idea regarding works. The successful bidder will have to prepare the architectural drawings afresh as per the requirements of the Institute. Similarly detail survey and soil investigation has to be carried out by the successful bidder after award of work. No claim whatsoever will be entertained in future in this regard.
- 5.6 All works have to be executed as per specifications provided in the bid document, CPWD Specifications 2009 Vol-I & Vol.II with correction slips / additions up to date of submission of bids and National Building Codes 2016 with correction slips / additions up to date of submission of bids (in case of difference if any, stringent / higher specification of the two shall be followed). In absence of CPWD Specification, IS Codes, MoRTH Specifications, National Building Code 2016 Specifications, and sound engineering practices shall be adopted as per order of precedence defined in the contract.
- 5.7 The scope of works & specification are given in general but they are not exhaustive i.e., does not mention all the incidental works required to be carried out for complete execution of the item of work. Since this is an EPC contract, the work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be

necessary to complete the item in all respect. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings. Also , no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects ) on account of the directions of Engineer-in-charge . Nothing extra shall be payable on this account.

- 5.8 In case, some of items are missing in the scope of work or specifications in the bidding documents same shall be taken from the specification mentioned in similar type of items mentioned for similar type of buildings in the scope of work or shall be executed as given in the CPWD Specifications, NBC-2016, IS Codes or according to sound engineering practices so as to make the building including related services fully functional. No claim what so ever may be entertained at later stage. All cost of providing and making buildings with services , landscape and horticulture works to the extent specified, fully complete in all aspect unless specifically mentioned in the contract document and making buildings with services fully functional are deemed to be included in the cost tendered for this work.
- 5.9 Tap off locations for drawing the services like water supply, electricity and disposal of sewage will be made available to the contractor. These locations are shown in the masterplan enclosed with the bid documents. the contractor shall execute all works necessary for these services as per required engineering design. Nothing extra shall be payable.

#### 5.10 Brief scope of Electrical Works:

1	Internal Electrical Installations, Water supply Pump sets and Street lighting, compound and foot path lighting	obtaining approvals from the Institute, Supply, installation, testing and
2.	Building Internal Lifts	Planning, Design & preparation of Drawings for E & M services, obtaining approvals from the department, Supply, installation, testing and commissioning of all lifts as described in the details specifications of lifts, waterproofing of lift pits, etc.
3.	Fire Fighting System	Planning, Design & preparation of Drawings for E & M services, obtaining approvals from the department, placement of suitable type of fire extinguishers shall be part of the scope of the contract.
4.	Sub-station equipment & External Electrical Service connection cabling to buildings	<ul> <li>Planning, Design &amp; preparation of Drawings for E &amp; M services, obtaining approvals from the department, Supply, installation, testing and commissioning of all required substation equipment and external cabling as described in the details of specifications.</li> <li>(i) Provision of suitable LT panels in existing substation with all necessary accessories.</li> <li>(ii) Design &amp; Drawing, Supply, installation, testing and commissioning of external service connections with suitable sizes of 1.1 KV grade aluminium conductor UG armoured cables to buildings and facilities under Phase 1 substation(s) in ground, earthig etc.</li> </ul>

5.	Solar Water Heating System with electrical heater back up.	Planning, Design & preparation of Drawings for E & M services, obtaining approvals from the department, Supply, installation, testing and commissioning of Solar Water Heating System with electrical heater back up. (Total minimum capacity: 3000 LPD)
6.	LAN, Wi-Fi Networking system	Planning, Design & preparation of Drawings for E & M services, obtaining approvals from the department, Supply, installation, testing and commissioning of LAN, Wi-Fi Networking system. Care shall be taken to integrate the system with existing system.
7.	CCTV System	Planning, Design &preparation of Drawings for E & M services, obtaining approvals from the department, Supply, installation, testing and commissioning of CCTV System. Care shall be taken to integrate the system with existing system under Phase 1.

#### Note:

- All works has to be executed as per specifications provided in the bid document, CPWD Specifications and National Building Codes 2016 (in case of difference, if any, stringent / higher specification of the two shall be followed). In absence of CPWD Specification, IS Codes, National Building Code 2016 or sound engineering practices shall be adopted as per order of precedence defined in the contract.
- 2. The scope of works & specification are given in general but they are not exhaustive i.e., does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be necessary to complete the item in all respect. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-charge. Nothing extra shall be payable on thisaccount.

- 3. In case, some of items are missing in the scope of work or specifications in the bidding documents same shall be taken from the specification mentioned in similar type of items mentioned for similar type of buildings in the scope of work or shall be executed as given in the CPWD Specifications, NBC-2016, IS Codes or according to sound engineering practices so as to make the building including related services fully functional. No claim what so ever may be entertained at later stage. All cost of providing and making buildings with services , fully complete in all aspect unless specifically mentioned in the contract document and making buildings with services fully functional are included in the cost tendered for this work.
- 4.All the equipment/ components for sub-station, DG sets, Solar roof Top Power generation plants, CCTV, LAN/Wifi networking system, EPABX etc. shall be compatible with BMS (BMS is not part of this contract). Nothing extra shall be paid on this account.

#### 5.11 Brief Description of activities:-

The work shall be executed on **Turnkey** (**Design & Build**) **basis** involving getting all local body clearances, soil testing, structural design & drawings, constructions & commissioning of buildings & services and obtaining completion in accordance with layout plan and architectural / structural drawings. Scope of work contained in the paras mentioned below is **only indicative and not exhaustive.** 

 The Works shall include all Civil, Electrical, Mechanical, all Safety Aspects and any other Works required for the Construction and Completion of the Works in all respects and to the Satisfaction of the Engineer – in – charge.

#### (2) Local Body Approval:-

- i. Agency shall get the requisite approvals from the local bodies wherever required before start of the work and if required after completion of the work also. The contractor shall incorporate any modifications that may become necessary by any of the local bodies, the same shall be carried out by the contractor at his own cost.
- ii. The contractor shall obtain all mandatory approval and No Objection Certificate / Consent for Establishment from local body authorities like local Fire department, local town planning authority, local ground water authority, local electricity supply authority, local pollution control board, Forest department, Environment clearance, Lift inspectorate, Central Electricity Authority etc., as may be necessary for the construction and occupancy of the building.
- iii. The contractor has to prepare all the documents as required and submit directly to the local statutory bodies.
- iv. The contractor shall at his own cost collect field samples and carry out all necessary tests required for submission of necessary applications.
- v. The contractor has to comply and, if necessary, resubmit applications are required by the local bodies.
- vi. If required the contractor has to appoint at his own cost consultants for obtaining local body approvals.

#### vii. The statutory payments or fees shall be paid by the Institute.

- viii. Three final copies of the documents prepared shall be submitted to Engineer in charge for record.
- ix. All the documents created out of the assignment will become the sole property of the Institute.
- (3) The contractor shall get the detailed soil investigation done as per relevant IS code, NBC 2016 etc; as applicable through the Geotechnical consultant having professional experience of 15 years and must have carried out soil investigation successfully for at least two similar works & one set of test report shall be deposited with the department. The department may verify the results submitted by agency, if need be.
- (4) Tenderer may satisfy himself by conducting pre soil tests if he so requires. However an indicative soil investigation report is submitted for general guidelines of the bidders, although this will not have any being on the quoted by the bidders. Tenderer will be required to conduct detailed soil investigation for carrying out structural design, through Geotechnical consultants as mentioned in Para 3 above.

#### 5.12 Structural Design:

- Prepare complete structural design, drawings for foundation, superstructure and for other related structures as per provision contained in IS / relevant codes under seismic Zone II.
- ii. The structural drawings shall be got proof checked & vetted from any of the IITs by contactor himself and nothing extra shall be paid on this account. If any modification in design / drawings is needed as per site conditions or subsequent to proof checking, the contractor shall do / redo the design without any extra cost. The decision of the Engineer in charge in this regard shall be final and binding. No claim whatsoever on this account will be entertained.

- 5.13 Planning, preparing drawing for internal services and execution of the same i.e. internal sanitary work, water supply work, drainage system etc. complete for the building including all pipes, its fittings, testing etc; complete as approved by department.
- 5.14 Water supply: Water supply lines shall be laid as per scheme prepared, submitted by the contractor and approved by Engineer in charge. The same would be implemented as per approval given along with construction of overhead tanks on top of the building.
- 5.15 Planning, designing and construction / installation of underground reservoirs, water gallery, its pump houses for water supply, for firefighting tank including installing of pumps, stand by pumps, DG Sets, as per approved drawings / specifications or as directed by Engineer in charge.
- 5.16 Connection charges / fee, if any to be paid to the local bodies or any other agency shall be borne by the department. The cost of restoration of any services damaged by the contractor during execution shall be borne by him.
- 5.17 Complete levelling / dressing including filling of earth, its supply, disposal of surplus earth as the case may be, is to be completed as directed by the Engineer in charge.
- 5.18 Taking all precautionary measures to safeguard against any accident for the contractors" employees, general public, supervisory staff of IIT Hyderabad by providing necessary safety equipment e.g. MS sheet barricading etc and personnel"s equipment e.g. helmets, safety shoes etc; at work site.
- 5.19 The site has to be kept clean of all debris, rubbish and dirt & surplus / waste material all the time. It also includes maintenance, cleaning & de-silting the drains, pipe lines laid by the agency for all services etc; executed by the agency to the entire satisfaction of the Engineer in charge during the construction period. **Deep Cleaning and de-silting** shall also be done by the agency before handing over the completed building to the Institute. All machines, equipment and labour for this purpose shall be arranged by the contractor.

- 5.20 The contractor shall submit the Schedule of quantities of items, their rates (i.e; DSR reference, if available) with detailed measurements & their specifications, as finally approved (in four sets) within two months from the date of start of the work to accord the T.S.
- 5.21 **The Electrical work** as per specifications and scope of work given in the bid document & direction of Engineer-in-charge which includes internal electrical installations fittings, lifts, fire fighting, fire alarm system etc; shall be implemented along with civil work in proper coordination.
- 5.22 All labour employed by the firm / contractor shall be got registered with local Construction Labour Welfare Board, ESIC, and EPF etc;
- 5.23 **Maintenance / defect liability period** would be uniformly two (2) years from the date of handing over the building complete in all respects & fit for occupation. During this period, the defects noticed in the work carried out by the contractor shall be removed at his cost. In case he fails to do so after intimation to him in writing by the Engineer in charge, the same shall be carried out at his cost.
- 5.24 The **final plinth level** will be decided soon after actual start of work at site. However, the plinth level of the building shall be generally **450** mm above the crown of finished road. Changes, if any, in the plinth height would not affect the agreed rate and no claim on this account shall be entertained.
- 5.25 Planning, designing and providing required electrical installations for the proposed building shall be as per latest NBC norms and shall include obtaining approval of local bodies, if required.
- 5.26 Providing lift of required capacity as per NBC norms and as specified in the Architectural drawings including provision of shaft lift well machine rooms and standby genset in case of

power failure (**excluding supply of genset**). The scope includes getting the requisite permission of lift from the concerned authority before commissioning of the same.

5.27 Planning designing and providing required firefighting system if required, for proposed building as per NBC norms and Chief Fire Officer approval including the provision for required capacity underground water tank, overhead tank, pumps, hydrant, extinguisher, sprinklers, provision of refuge area, fire stair case etc; all to the entire satisfaction of CFO.

# 5.28 Out of total stipulated period, the time limit for Planning & Designing shall be maximum45 days. The remaining period shall be for completion of entire work fit for habitation.

- 5.29 Development of Work shall include following items:
  - i. Planning, designing, construction, testing and commissioning of manholes including connection of external drainage pipelines up to first manhole.
  - ii. Complete levelling up to required setback of a building including disposal of excess soil and / or filling with good earth under OMC. If excavated soil is insufficient or of inferior quality then good earth shall be supplied by the contractor at his own cost and nothing extra shall be payable.
  - iii. Planning, design, construction of retaining walls if required for levelling purposes including storm water catch drains for proper drainage of rain water to the rain water harvesting system.
  - iv. Cement concrete approach road up to as per architectural drawings and direction of Engineer – in – charge. The concrete to be used shall be vacuum dewatered CC pavement of minimum grade M-30.
  - v. Planning, design and construction of underground sump of required capacity for fire and domestic requirement, pump set, water supply main riser complete as per architectural drawings

# and direction of Engineer - in - charge. Separate pump sets including standby is to be provided for each block.

- vi. Electrical services cable laying up to feeder pillar.
- 5.30 The above scope of work includes cost of all materials, manpower, equipment, T&P, fixtures, accessories, royalties, taxes, watch & ward and all other essential elements for completion and maintenance of works as aforesaid whatsoever. The approval accorded by IIT Hyderabad before acceptance of tender is only for tender evaluation. Any changes, modifications, revisions etc; required to be done in accordance with applicable standards shall have to be done at contractor's cost and nothing extra shall be payable.

#### 5.31 Documentation, Instrumentation, etc;

- All drawings shall be made in Latest Version of AutoCAD and the Soft Copies on CDs and six Hard Copies of Prints of all Approved Drawings and "As Built" Drawings shall be supplied by the Contractor to the Engineer – in – charge at Free of cost as per the Approved Program.
- ii. One soft copy in CDs and two hard copies of all approved design calculations shall be submitted by the contractor to the engineer in charge at free of cost as per approved program.
- iii. One soft copy and Three hard copies of "Maintenance Manual" describing Access Arrangements, Important Obligatory Precautions from the Point of View of Structural Safety and Procedure for Minor and Major Repairs of each Component of the Buildings and Layout, Renewals of Finishes and Treatment periodically shall be supplied by the Contractor to the Engineer – in – charge at free of Cost.
- iv. One soft copy and Three hard copies of "Construction Manual" covering various aspects of Construction Methods, Difficulties faced and how they are overcome during execution, etc; shall be supplied by the contractor to the Engineer in charge at free at cost at the time of finalization of work.
- v. Fixing arrangement for internal and external lighting shall be as approved by the employer and executed by the contractor.
- vi. "As built" drawings and shop drawings in soft form and two sets of hard copies shall be submitted up on completion of work.

#### INFORMATION AND GUIDE-LINES FOR BIDDERS

#### 5.32 GENERAL:

- 5.32.1 Letter of transmittal and forms for deciding eligibility are given in Section III.
- 5.32.2 All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even if no information is to be provided in a column, a "nil" or "no such case" entry should be made in that column. If any particulars/query is not applicable in case of the bidder, it should be stated as "not applicable". The bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the bid being summarily disqualified. Bids made by telegram or telex and those received late will not be entertained.
- 5.32.3 The bidder should sign each page of application, forms and documents.
- 5.32.4 Over writing should be avoided. Corrections if any should be made by neatly crossing out, initialing, dating and rewriting. Pages of the eligibility criteria document are numbered. Additional Sheets if any added by the Bidder should also be numbered by him. They should be submitted as a package with signed letter of transmittal.
- 5.32.5 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by an officer not below the rank of Executive Engineer or equivalent.
- 5.32.6 The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after uploading of eligibility criteria document unless it is called for by the Employer.
- 5.32.7 If private works are shown in support of eligibility, certified copy of the tax deducted at source certificate (TDS) shall be submitted along with the experience certificate and the TDS amount shall tally with the actual amount of work done.

#### 5.33 **DEFINITIONS**:

- 5.33.1 In this document the following words and expressions have the meaning hereby assigned to them:
- **5.33.2** EMPLOYER/ Institute/ Department: Means the Director, IIT Hyderabad, acting through the Executive Engineer, Construction & Maintenance Division, IIT Hyderabad.
- 5.33.3 User/Client/Owner: Means Director, IIT Hyderabad, acting through the Executive Engineer, Construction & Maintenance Division, IIT Hyderabad.

- 5.33.4 **BIDDER:** Means the individual, proprietary firm, firm in partnership, limited company (private or public) or corporation.
- 5.33.5 "Year" means "Financial Year" unless stated otherwise.

#### 5.34 METHOD OF APPLICATION:

- 5.34.1 If the bidder is an individual, the application shall be signed by him above his full type written name and current address.
- 5.34.2 If the bidder is a proprietary firm, the application shall be signed by the proprietor above his full type written name and the full name of his firm with its current address.
- 5.34.3 If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full type written names and current address, or, alternatively, by a partner holding power of attorney for the firm. In the later case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- 5.34.4 If the bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a Public Notary.

#### 5.35 FINAL DECISION MAKING AUTHORITY

The employer reserves the right to accept or reject any bid and to annul the process and reject all bids at any time without assigning any reason or incurring any liability to the bidders.

#### 5.36 PARTICULARS PROVISIONAL

The particulars of the work given in Section A are provisional. They are liable to change and must be considered only as advance information to assist the bidders.

#### 5.37 SITE VISIT

The bidder is advised to visit the site of work, at his own cost, and examine it and its surroundings to himself collect all information that he considers necessary for proper assessment of the prospective assignment before bidding.

#### 5.38 EVALUATION CRITERIA FOR TECHNICAL QUALIFCATION

The details submitted by the bidders will be evaluated in the following manner.

- 5.38.1 The initial criteria for eligibility prescribed in para Vol-I, Part D Section 4 above in respect of experience of similar class of works completed, bidding capacity and financial turn over etc. will first be scrutinized and the bidder's eligibility for the work be determined.
- 5.38.2 The bidders qualifying the initial criteria for eligibility as set out in above p a r a s , will be evaluated by scoring method detailed below on the basis of details furnished by them:

(a)	Financial strength (Form "A"&B)	Maximum 20 Marks
	a) Turnover	16 Marks
	b) Solvency	4 Marks

- (b) Experience in eligible similar nature of work Maximum 20 Marks during last Seven years (Form "C")
   A site visit to the project(s) specified in technical bid may be undertaken by an expert committee to assess the quality of the work.
- (c) Performance on work (Form "D")- Maximum 20 Marks Time over run
- (d) Performance on work (Form "D") Maximum 40 Marks Quality

#### **NOTES:**

- 1. Criteria for evaluation of performance of the contractor is given in Form "K".
- 2. To become eligible for qualification in technical bid evaluation, the bidder must secure at least fifty percent marks in each attribute and sixty percent marks in aggregate.
- 3. The department, however, reserves the right to restrict the list of bidders in technical bid evaluation to any number, as deemed suitable by it.
- 4. The average value of performance of works for time overrun and quality shall be taken on the basis of performance report of the eligible similar works.
- 5.38.3 Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has:
  - (a) made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
  - (b) record of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses etc.

#### 5.39 FINANCIAL INFORMATION

Bidder should furnish the following financial information

I. Annual Financial Statement for the last five years (in Form "A1")

II. Solvency Certificate (in Form "B").

#### 5.40 EXPERIENCE IN CIVIL WORKS HIGHLIGHTING EXPERIENCE IN SIMILAR WORKS

- 5.40.1 Bidder should furnish the following:
  - (a) List of all works of similar nature successfully completed during the last seven years (in form "C").
  - (b) List of the projects under execution or awarded (in Form "C1"). This information should be complete and no work should be left out.
  - (c) (a) Particulars of completed works and performance of the applicant duly authenticated/certified by an officer not below the rank of Executive Engineer or equivalent should be furnished separately for each work completed or in progress (in Form "D").

5.40.2 If required IITH Officer(s) may inspect the eligible works as submitted by the agency. The agency shall coordinate such inspections and provide all necessary documents, information as desired by the visiting officer(s).

#### 5.41 ORGANISATION INFORMATION

Bidder is required to submit the following information in respect of his organization (in form "F").

The bidder should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The bidder should submit a list of these employees stating clearly how these would be involved in this work with 15 days of award of work.

#### 5.42 CONSTRUCTION PLANT & EQUIPMENT

Bidders should furnish the list of construction plant and equipment including steel shuttering, centring and scaffolding to be used in carrying out the work. Details of any other plant & equipment required for the work not included in agreement and available with the bidder may also be indicated.

#### 5.43 LETTER OF TRANSMITTAL

The bidder should submit the letter of transmittal attached with the document.

#### 5.44 OPENING OF THE FINANCIAL BID

After evaluation of applications, a list of short listed agencies qualified in technical evaluation will be prepared. Thereafter, the financial bids of only the qualified and technically acceptable bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives. The validity of the tenders shall be **90 days** and shall be reckoned from the date of opening of the Technical Bid.

#### 5.45 AWARD CRITERIA

- 5.45.1 The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:
  - (a) Amend the scope and value of contract to the bidder.
  - (b) Reject any or all of the applications without assigning any reason.
- 5.45.2 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

#### <u>Form - K</u>

#### **Eligibility and Evaluation Criteria**

#### Criteria for Evaluation of the performance of bidder for Pre- Eligibility

Sl. No	Attributes	Marks	Evaluation				
(a)	Financial Strength (Maximum 20 Marks)		(i) 60% marks for minimum o criteria				ligibility
	(i) Average annual	16 Marks	(ii)1009	(ii)100% marks for twice th			ne
	Turnover		minimu	m elig	gibility o	criteria o	r more.
	(ii) Solvency	04 Marks	(iii) In	betwee	en (i) &	c (ii)- on p	pro-rata
	Certificate		basis				
(b)	Experience in similar class of work (Maximum 20 Marks)	20 marks	(i) 60% marks for minimum eligibi criteria				
			(ii) 1 eligibili				the minimum
			(iii) In between (i) & (ii)- on pro-rata b				pro-rata basis
Ι	Performance on work	rks [Time Over Run (TOR)]: Maximum 20 marks					
	Parameter	Calculation for points		Maximum Marks			
	If TOR =		1.00	2.00	3.00	>3.50	
	(i) Without levy of compe	nsation	20	15	10	10	20
	(ii) With levy of compensa	ition	20	5	0	-5	20
	(iii) Levy of compensation	not decided	20	10	0	0	
	TOR = AT/ST, where AT =Actual Time; ST= Stipulated Time. <b>Time in the Agreement plus (+) justified period of extension of time. Note:</b> Marks for value in between the stages indicated above is to be determined by straight line variation basis.						
( <b>d</b> )	Performance of works (Quality): Maximum 40 Marks						ks
	(i) Outstanding					40	
	(ii) Very Good	30					
	(iii) Good		20				
	(iv) Poor	0					

Note: Performance of work (Quality) certified as "satisfactory" will be treated as good.

#### <u>Form-A</u>

#### LETTER OF TRANSMITTAL

From:

#### XXXX

То

#### The Executive Engineer, Construction and Maintenance Division, IIT Hyderabad.

#### Subject:- Submission of bids for the work of Construction of 336 Boarders RCC Precast Hostel Bldg (G+6) at IIT Hyderabad.

Sir,

Having examined the details given in NIT and Bid document for the above

work, I/we hereby submit the relevant information.

- 1. I/We hereby certify that all the statement made and information supplied in the enclosed forms A to J and accompanying statement are true and correct.
- 2. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
- 3. I/We submit the requisite certified solvency certificate and authorize the Executive Engineer, , IIT Hyderabad to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize Executive Engineer, IIT Hyderabad to approach individuals, employers, firms and corporation to verify our competence and general reputation.
- 4. I/We submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following works:

Sl.No.	Name of work	Amount	ficate issued by
1			
2			
3			

#### <u>Certificate</u>

It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/We shall be liable to be debarred, disqualified/ cancellation of enlistment in case any information furnished by me/us found to be incorrect. Enclosures:

Date of submission

Seal of bidder & Signature(s) of bidder(s)

#### FORM "A1"

#### **FINANCIAL INFORMATION**

Name of the firm/ Bidder.....:

I. Financial Analysis-Details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years duly certified and audited by the Chartered Accountants, as submitted by the applicant to the Income Tax Department (Copies to be attached).

#### Fig in Lakhs Rs.

Sl.	Particulars	Financial Years						
No.		2014-15	2015-16	2017-18	2018-19			
i)	Turnover of construction Works							
ii)	Profit /Loss							

II. Financial arrangements for carrying out the proposed work.

III. Solvency Certificate from Bankers of bidder in the prescribed Form "B"

#### **SIGNATURE OF BIDDER(S)**

Signature of Chartered Accountant with Seal

#### FORM 'B'

#### FORM OF BANKERS" SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

То

The Executive Engineer, Construction and Maintenance Division, IIT Hyderabad.

This is to certify that to the best of our knowledge and information that M/s./Shri

This certificate is issued without any guarantee or responsibility on the bank or any of the officers. This certificate is valid for six month from the issued of this letter.

(Signature of Branch Manager)

For the Bank

NOTE: (1) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

#### FORM "C"

#### DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DATE OF SUBMISSION OF TENDER......

Name of work/pr oject and Location	Owner or sponsoring Organization	Cost of work (in Crores)	Date of commenc- -ement as per contract	Stipulated date of completion	ual date of completion	tigation / arbitration pending / in progress with details*	Name and address (Postal & email)/ contact no of officer	Whethe r the work done on back to back basis. ss/No
2	3	4	5	6	7	8	9	10

\*Indicate gross Amount Claimed and Amount Awarded by the Arbitrator.

SIGNATURE (S) OF BIDDER (S) (WITH STAMP)

#### FORM "C1"

### List of the projects under execution or awarded

o	work/pr oject and Location	or sponsoring Organization	Crores)	ed date of completion	Present P r o	Litigati	nd address (Postal l)/ contact no of officer	Whet
					7	8		10

\*Indicate gross Amount Claimed and Amount Awarded by the Arbitrator.

SIGNATURE (S) OF BIDDER (S) (WITH STAMP)

#### FORM 'D'

## PERFORMANCE REPORT OF WORKS REFERRED IN FORM-C

1.	Name of work / Project & Location	
2.	Agreement No.	
3.	Estimated Cost	
4.	Tendered Cost	
5.	Actual Value of work done.	
	Date of Start	
<ol> <li>8.</li> <li>9.</li> <li>10.</li> <li>11.</li> <li>12.</li> <li>13.</li> </ol>	Whether internal electrical installation is part of	Yes/ No. Yes/ No. Yes/ No. Yes/ No. Yes/ No. Yes/ No. Yes/ No. Yes/ No.
	1) Quality of Work	Outstanding / Very Good / Good/ Poor
	2) Financial Soundness	Outstanding / Very Good Good/Poor
	3) Technical Proficiency	Outstanding / Very Good Good/Poor
	4) Resourcefulness	Outstanding / Very Good Good/Poor
	5) General Behaviour	Outstanding / Very Good Good/Poor
		Executive Engineer or Equivalent with office stamp
	Dated:	

FORM "E"

#### PROFORMA OF AFFIDAVIT FOR EXECUTION OF SIMILAR WORKS

I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in IIT Hyderabad in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

NOTE: Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/-

Signature of Bidder(s) or an authorized Officer of the firm with stamp

Signature of Notary with seal

#### FORM 'F'

#### **STRUCTURE & ORGANISATION**

- 1. Name & Address of the bidder
- 2. Telephone No./Telex No./Fax No.
- 3. Legal status of the bidder (attach copies of original document defining the legal status).
  - a) An Individual
  - b) A proprietary firm
  - c) A firm in partnership
  - d) A limited company or Corporation
- 4. Particulars of registration with various Government bodies (attach attested photocopy).

Organization/Place of registration

#### **Registration** No.

- 1.
- 2.
- 3.
- 5. Names and Titles of Directors & Officers with designation to be concerned with this work.
- 6. Designation of individuals authorized to act for the organization.
- 7. Has the bidder, or any constituent partner in case of partnership firm, ever been convicted by a court of law? If so, give details.
- 8. In which field of Civil Engineering Construction the bidder has specialization and interest?
- 9. Any other information considered necessary but not included above.

#### **SIGNATURE OF BIDDER(S)**

<u>Form-H</u>

Form of Earnest Money Deposit (Bank Guarantee Bond)

**TO BE ADDED** 

#### Form-.I

To,

#### **The All Bidders**

Dear Sir,

It is hereby declared that IIT HYDERABAD is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of thesameshallbedeemedceptance and signing of the IntegrityAgreement on behalf of theIIT Hyderabad.

Yours faithfully

**Executive Engineer** 

# Executive Engineer, IIT Hyderabad

#### Sub: Construction of 336 Boarders RCC Precast Hostel Building(G+6) at IIT Hyderabad

Dear Sir,

То

I/We acknowledge that IIT Hyderabad is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THEMAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by IIT Hyderabad. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, IIT Hyderabad shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

To be signed by the bidder and same signatory competent /authorized to sign the relevant contract on behalf of IIT Hyderabad.

#### **INTEGRITY AGREEMENT**

This Integrity Agreement is made at ..... on this ..... day of ......20.....

#### BETWEEN

Director, IIT Hyderabad represented through Executive Engineer, Construction and Maintenance Division, IIT Hyderabad, (Hereinafter referred as the "Principal/Owner", which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns) AND

......... (Name and Address of the Individual/firms/Company)

through ......(Hereinafter referred to as the (Details of duly authorized signatory) "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

#### Preamble

WHEREAS the Principal/Owner has floated the Tender (NIT No. .....) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for **Construction of** .....

hereinafter referred to as the "Contract".

- AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).
- AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witness as under:

#### Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidders(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act,1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

#### Article 2: Commitment of the Bidder(s)/Contractor(s)

- It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government/Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

- The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
- The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- The Bidder(s)/Contractor(s) will not commit any offence under relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details including information contained or transmitted electronically.
- The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and address of foreign agents/representatives, if any. Either the India agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
- The Bidder(s)/Contractor(s) will, when presenting his bid, disclose (with each tender as per proforma enclosed) any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing

# damage to justified interest of others and/or to influence the procurement process to detriment of the Government interests.

5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

#### Article 3: Consequences of Breach

- Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes to respect and uphold the Principal/Owner"s absolute right:
  - 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or the Contract, if already or exclude the terminate/determine executed Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
  - 2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
  - 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employees or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Indian Penal code (IPC)/Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

#### **Article 4: Previous Transgression**

1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or

with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
- 3) If the Bidder/Contractor can prove that he has resorted/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

#### Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

#### **Article 6: Duration of the Pact**

- This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor, 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.
- If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, IIT Hyderabad.

#### **Article 7: Other Provisions**

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head quarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement/Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/Pact or interpretation thereof shall not be subject to arbitration.

#### Article 8: LEGAL AND PRIOR RIGHTS

- All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contract documents with regard any of the provisions covered under this Integrity Pact.
- IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and	on behalf	of (F	or and on behalf of Principal/Owner)
	/Contractor)		
WITNI	ESSES:		
1			
(Signa	ture, name and addre	ess)	Place: Date :
2			
(Signa	ture, name and addre	ess)	

#### FORM "M"

#### PROFORMA OF AFFIDAVIT FOR NON - BLACK LISTING

I/we undertake and confirm that our firm/partnership firm has not been blacklisted by any state/Central Departments/PSUs/Autonomous bodies during the last 7 years of its operations. Further that, if such information comes to the notice of the department then I/we shall be debarred for bidding in IIT Hyderabad in future forever. Also, if such an information comes to the notice of department on any day before date of start of work, the Engineer-in-charge shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy of this notarized affidavit to be submitted at the time of submission of bid)

NOTE: Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/-

Signature of Bidder(s) or an authorized Officer of the firm with stamp

Signature of Notary with seal

Appendices

# Appendix - I

#### ESTABLISHING SITE LABORATORY AND TESTING OF MATERIALS

Equipment for conducting necessary tests (as per CPWD Specifications 2009 Volume-I) shall be provided and installed at site / at precast fabrication yard in the well-furnished field laboratory by the agency at his own cost. The following laboratory equipment should be in general or as and when required be set up at site laboratory: -

Sl. No.	Equipment	Numbers
1.	100MT compression testing machine, electrical-cum- manually operated)	1
2.	Slump cone, steel plate, tamping rod, steel scale, scoop	5
3.	Vicat Apparatus with Desk pot	1
4.	Megger & earth resistance tester	1
5.	Pumps and pressure gauges for hydraulic testing of pressure	2
6.	Weighing scale platform type 100 Kg	2
7.	Graduated glass measuring cylinder of various capacity	As per requirement
8.	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm, 2mm, 12.5mm]	3 sets
9.	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm; 2.36mm; 1.18mm; 600microns; 300 microns & 150 micron, with lid and pan]	
10.	Sieve Brushes and sieve shaker capable of 200mm and 300mm dia sieves, manually operated with timing switch assembly	1
11.	Cube moulds size 150mmx150mmx150mm	30
12.	Ultrasonic Test Equipment (For concrete)	1
13.	Hot air oven temp. Range 50°C to 300°C-sensitivity 1 degree	1
14.	Electronic balance 600gx0.1g., 10kg and 50 kg	1each
15.	Physical balance weight up to 5 kg	1
16.	Digital thermometer up to 150oc	2
17.	Measuring jars 100ml, 20ml, 500ml	5 Nos each size
18.	Gauging trowels 100mm & 20mm with wooden	3
19.	Spatula 100mm & 20mm with long blade wooden handle	3
20.	Vernier calipers 12" & 6" size	2 each
21.	Digital PH meter least count 0.01mm	2 each
22.	Digital Micrometer least count. 0.01mm	1 each
23.	Digital paint thickness meter for steel 500 microns	1
24.	GI tray 600x450x50mm, 450x300x40mm, 300x250x40mm	3 Nos each
25.	Electric Motor mixer 0.25 cum capacity	1
26.	Rebound hammer test digital rebound hammer	2
27.	Screw gauge 0.1mm-10mm, least count 0.05	2
28.	Water testing kit	1

30.Pruning Rods 2 Kg weight length 40 cm and ramming face 25 mm2131.Extra Bottom plates for 15 cm cube mould1032.Dial type spring balance preferable with zero correction knob capacity 100 kgs. Reading to ½ kg.133.Iron Weight of 5 kg, 2 kg, 1 kg, 500 gm, 20 gm, 100 gm1 set34.Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gmAs requirement35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 mlAs per requirement36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per requirement37.Wash Bottles capacity 500 mlAs per requirement38.Hammer 11b& 21b1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	29.	Motorized sieve shaker	1	
32.Dial type spring balance preferable with zero correction knob capacity 100 kgs. Reading to ½ kg.133.Iron Weight of 5 kg, 2 kg, 1 kg, 500 gm, 20 gm, 100 gm1 set34.Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gmAs requirement35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 mlAs per requirement36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per requirement37.Wash Bottles capacity 500 mlAs per requirement38.Hammer 1lb& 2lb1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	30.		1	
capacity 100 kgs. Reading to ½ kg.33.Iron Weight of 5 kg, 2 kg, 1 kg, 500 gm, 20 gm, 100 gm1 set34.Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gmAs requirement35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 mlAs per requirement36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per requirement37.Wash Bottles capacity 500 mlAs per38.Hammer 11b& 21b1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	31.	Extra Bottom plates for 15 cm cube mould	10	
gm, 100 gmAs34.Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gmAs35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500As per36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per37.Wash Bottles capacity 500 mlAs per38.Hammer 11b& 21b1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	32.		1	
35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 mlAs per requirement36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per requirement37.Wash Bottles capacity 500 mlAs per38.Hammer 11b& 21b1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	33.		1 set	
35.Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 mlAs per requirement36.Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 mlAs per requirement37.Wash Bottles capacity 500 mlAs per38.Hammer 1lb& 2lb1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	34.	Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gm		per
cover capacity 500 ml, 20 ml, 50 mlrequirement37.Wash Bottles capacity 500 mlAs per38.Hammer 1lb& 2lb1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	35.		As per	
37.Wash Bottles capacity 500 mlAs per38.Hammer 1lb& 2lb1 each39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As	36.		*	
39.Distance metre (of 100 metre)540.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	37.	Wash Bottles capacity 500 ml		
40.Hacksaw with 6 blades541.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	38.		1 each	
41.Measuring tape (5 metre)1042.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	39.	Distance metre (of 100 metre)		
42.Shovels & Spade1043.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	40.	Hacksaw with 6 blades	5	
43.Steel plates 5 mm thick 75x75 cmAs per44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	41.	Measuring tape (5 metre)	10	
44.Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltrAs per45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	42.	Shovels & Spade	10	
45.Wheel BarrowAs per46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	43.	Steel plates 5 mm thick 75x75 cm	As per	
46.Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.As requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	44.	Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltr	As per	
brushes, shutter steel plat oil, kerosene with stove etc.requirement47.Any other equipment for site tests as outlined in BIS codes and as directed by the Engineer-in-charge.As requirement	45.	Wheel Barrow	As per	
as directed by the Engineer-in-charge. requirement	46.			per
	47.			per
48. Concrete Core cutter Machine 1	48.	Concrete Core cutter Machine	1	

# Appendix-II

#### **REQUIREMENTS OF PLANT AND EQUIPMENT AT SITE / PRECAST YARD**

Sl. No.	Equipment	Numbers
	Concrete weigh batcher of minimum capacity 8 cum	
1.	per hour.	1
2.	Excavator cum loader (JCB 3D model or equivalent).	1
4.	Mini batching plant (6 cum./hr.).	1
5.	Needle Vibrators.	5
6.	Screed leveler.	3
7.	Plate Vibrator	3
8.	Dumper/Tipper	1
9.	Reinforcement cutting machine.	3
10.	Power driven earth rammer (Soil compactor).	1
11.	Total station.	1
12.	Water tanker (Minimum capacity of 5000 liters)	1
13.	Welding machine 400 Ampere	2
14.	Screener for coarse sand and fine sand	2
19.	Shuttering with necessary props	As per
		requirement
20.	Double steel scaffolding and staging materials	As per
21.	Air compressor	1Nos.
31.	Good quality Camera for taking photographs and video recording of major activities for record purpose and for quality assurance.	2 Nos.
32.	Any other machinery required for completion of the work as per decision of Engineer-in-charge.	As per Actual Requirement

- Note: 1. The above list is only indicative and not exhaustive. The Bidder may be required to deploy more T&P as per requirement of work.
  - 2. All the above plants & equipment are to be deployed as and when required or directed by Engineer-in-Charge.