INDIAN INSTITUTE OF ASTROPHYSICS 2nd BLOCK, KORAMANGALA, BENGALURU – 560034.

TENDER DOCUMENT

Name of Work: ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus.

Tender Notice No.: 16/IIA/CIVIL/BENGALURU/2017-18 Dated 02.03.2018.

INDIAN INSTITUTE OF ASTROPHYSICS

Ph.080-2554 1200/1259/1359 , **Fax**: 25534043 **Website**: www.iiap.res.in



INDIAN INSTITUTE OF ASTROPHYSICS

2ND BLOCK, KORAMANGALA,

BENGALURU-560 034

Tender Notice No.:16/IIA/CIVIL/BENGALURU/2017-18 Dated 02.03.2018.

The Director, Indian Institute of Astrophysics invites sealed item rate tenders in the prescribed format for the following work from appropriate registered contractors in state PWD, CPWD, MES, Scientific institutions and private body contractors who have executed works of similar nature.

Sl. No.	Name of the work	Estimated cost in Rs.	Time for completion	EMD Rs.	Cost of tender document Rs.
1.	ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus.	4,98,007/-	04 Months	12,500/-	1,000/-

The Tender Document can be viewed and downloaded from our website www.iiap.res.in/tenders.htm. The interested tenderers may at their option download the same, as "NO" hard copies of Tender document shall be provided from this office and submit their offers along with EMD (refundable) & Tender fee (non-refundable) prescribed therein, only in the form of Demand Draft drawn in favor of "Indian Institute of Astrophysics" payable at Bangalore. The DD shall be valid for a period of forty five days beyond the date of opening of bids.

The Offers containing complete tender document duly filled with price (Bill of Quantities) and complete credentials including experience certificates should be submitted in sealed cover superscribing the envelope with "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA Bengaluru campus". Notice No. and due date", shall be submitted addressed to The Director, Indian Institute of Astrophysics, 2nd Block, Koramangala, Bengaluru–560 034. The last date of submission of bid is 27.03.2018 on or before 15:00 hrs. The bids will be opened at 15:30 hrs on the same day in the presence of attending tenderers or their authorized representatives.

ELIGIBILITY CRITERIA

The firms who fulfill the following requirements shall be eligible to submit their bids. Joint ventures are not acceptable.

- (i) Tendering Company shall be professionally managed and resourceful for taking up similar jobs.
- (ii) The experience of having successfully completed similar work during last 5 years as on 31.03.2017 should be either of the following:
 - a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

OR

- c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.
- (iii) The tenderer should have executed similar construction of works at Bengaluru Region.

Documentary Proof for Eligibility

Self attested/certified copy of work orders and completion certificates issued by the authority concerned to establish work experience shall be attached to the tender document. Copies of the Income Tax Returns along with Financial Statements such Balance Sheet, P&L Account etc for the last 3 Financial Years shall be attached to the tender document.

Valid Contract License issued by the competent authority shall be enclosed.

OTHER CONDITIONS

- Technical & price Bids supported by the above information should be submitted in a Sealed envelope duly super scribed with the name of work, tender notice No., Last date of submission. The completed Bids will be received by this office upto 15:00 Hrs. on 27.03.2018
- 2. If any information furnished by the tenderers is found incorrect at a later stage, the firm shall be liable to be debarred from tendering and taking up of work in I.I.A. The Institute reserves the right to verify the particulars furnished by the tenderers.
- 3. The firms should submit their offers along with EMD/Tender fee of prescribed amount up to 15:00 Hrs. on 27.03.2018
- 4. Incomplete Technical Bids are liable for rejection.
- 5. Late & / delayed offer will not be considered.
- 6. IIA is not responsible for any delay / loss of documents in transit.
- 7. The Tenders will be opened on 27.03.2018 at 15:30 hours at I.I.A, Bengaluru in the presence of bidders or their authorized representatives. The representatives of the tenderers should bring authorization letter / identification while attending for opening of the tenders.
- 8. IIA reserves the right to reject any or all tenders without assigning any reasons.

Senior Administrative Officer IIA, Bengaluru-34.

INDIAN INSTITUTE OF ASTROPHYSICS

2nd Block, Koramangala, Bengaluru-560 034

Tender Notice No.: 16/IIA/CIVIL/BENGALURU/2017-18 Dated 02.03.2018.

M/s.	
Dear Sir,	
The Director, Indian Institute of Astrophysics, Bengaluru inventrance corridor painting, flooring and staff toile. The Tender Terms enclosed herewith may be noted carefully accordance with the requirement, please submit your quotation.	et renovation at IIA, Bengaluru campus". v. If you are in a position to quote for the work in
Your Tender must reach this office on or before the date and ti	me indicated in the Tender Schedule.
Thanking you,	
	Yours faithfully,
Encl: as above.	Senior Administrative Officer
	for Director

3. INSTRUCTIONS TO THE TENDERERS

- 1. The tenderers should submit the entire tender document with duly filled with price and technical details of the firm. All the pages of document shall be duly signed.
- 2. The rates quoted by the tenderer in the schedule shall be inclusive of all taxes and levies. Such rates should provide the break-up of the cost and applicable taxes, levies etc.
- 3. The Offers should be submitted in sealed envelope superscribed with "Tender for "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus". Notice No. and due date".
- 4. If any clarification is required should be obtained before filling Tender Document.
- 5. If any discrepancy is there between figures and words for quoted rates, the lower of the two will be considered for the purpose of evaluation.
- 6. The tenderers who do not fulfill all or any of the tender conditions or if the tender is Incomplete in any respect, will be summarily rejected.
- 7. The Institute is not bound to accept the lowest tender.
- 8. Even though the Tenderers meet the above criteria, they are subject to be disqualified if they have (The Institute reserves the right to verify the particulars furnished by the tenderers.)
 - Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirement, Conditional bid / proposal: and / or
 - Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
- 9. Any effort by the contractor to influence the client in the bid evaluation, bid comparison or contract award decision results in rejection of the contractors bid.
- 10. Financial offer will be considered if the bidders fulfill all the technical and financial eligibility criteria as per tender.
- 11. Late & / delayed offer will not be considered at all.
- 12. IIA is not responsible for any delay / loss of documents in transit.
- 13. No bids will be considered if prescribed Tender Fee and EMD are not found with the bid.
- 14. All overwriting and corrections shall be duly attested with stamp & signature.
- 15. Corrigendum's / modifications / corrections, if any, will be published in the website only.
- 16. The Director, Indian Institute of Astrophysics reserves the right to accept or reject the tenders in full or part without assigning any reason thereof.

- 17. Performance certificates of the completed works issued by the clients to be enclosed in the technical bid.
- 18. The committee constituted by the Director may inspect the previously completed or the ongoing works of the bidders to assess their technical suitability for the tendered work.
- 19. All the pages of the tender document to be signed by the contractor and submit them in the respective sealed covers.
- 20. The successful contractor will have to execute an Agreement with the Institute within 21 days of receipt of Letter of Intent / Work Order.
- 21. All the bidders are requested to visit the site before quoting the rates. The complete document shall be read and understood in all respect. If any clarification is required, the same may got cleared before submitting their offers in writing by contacting the following persons:

Mr. R.Ramachandra Reddy Ph.No. 080-2254 1417 E-mail: rrr@iiap.res.in

Mr. M.V.Ramaswamy Ph. No. 080-2254 1207 E-mail.: mramaswamy@iiap.res.in

INDIAN INSTITUTE OF ASTROPHYSICS 2ND BLOCK, KORAMANGALA, BENGALURU – 560034.

Name of Work: "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus".

Tender Notice No.: 16/IIA/CIVIL/BENGALURU/2017-18 Dated 02.03.2018

Name of			
The Firm:	 		
Address:			
Phone No:			

Last date for submission: 27.03.2018 up to 15:00 hrs

FORMAT FOR SUBMISSION OF TECHNICAL & ORGANISATIONAL DETAILS.

NAME OF T	THE FIRM :
1 OFFICE SI	ET LID OF THE FIDM
1. OFFICE SI	ET UP OF THE FIRM
1.1	Office Address:
1.2	Year of Establishment:
1.3	Contact Person Shri
1.3	
	With Designation
	Ph No
	Fax No
	E-mail
1.4	Details of registration if any:
1.5	Organizational setup of the firm
	Total staff strength both technical
	And Administration with their name, age
	qualification and experience :
1.6	PAN (photocopy to be enclosed)
	GSTIN No (photocopy to be enclosed)

1.7 Details of the staff as per the following format.

Sl. No	Profession/discipline	Name	Age	Qualification	Experience (total years)	Field of experience
	Civil					

2 TENDERER'S EXPERIENCE

Details of Works carried out and on hand during last five years with details such as name of work, year of completion, client name and address, cost of work, time period of construction, nature of work, etc., (It shall enclose a certificate from the owner that the service rendered by the firm has been satisfactory)

Sl.	Name & description of work	Value work date.	of and	Period of construction and date.	Client persons to whom reference may be made.

3. TOOLS AND EQUIPMENT LIST

The tenderer shall indicate herein below the equipment he has in possession and the equipment he proposes to bring to the site, in case the work is awarded to him.

Sl.	Type and Description of the equipment.	Numbers the bidder	Numbers he
No		has in possession	proposes to bring on
			to site

Tenderers hereby confirms that the quantity and type of tools he will employ for construction will not be less than those listed above and agree to bring more equipment if so warranted in the opinion of the Engineer-in-charge.

4.	FINA	NCIAL		
	Bank	Name:		
		Branch:		
		Account No.:		
	Avera	ge Annual Turn	nover for last 5	Years:
5.	INSURAN	NCE		
	Accide	ent Insurance	Insured with:	
			Policy No.:	
6.	Details	of Arbitration ca	ases	:
7.	Any of	her detail you wo	ould like to	
	intimat	e in support of y	our technical bio	d
	for app	ointment		:
Sign	ature of the	e authorized		
Pers	on with sea	al of the firm		
(Not	te: Attach s	eparate sheet for	furnishing info	rmation in case the space in the format is insufficient)

INDIAN INSTITUTE OF ASTROPHYSICS 2ND BLOCK, KORAMANGALA, BENGALURU – 560034.

PRICE BID

Name of Work: "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus".

Tender Notice No.: 16/IIA/CIVIL/BENGALURU/ 2017-18 Dated 02.03.2018

Name of			
The Firm:			
Address:		 	
Phone No:			

Last date for submission: 27.03.2018 at 15:00 hrs

Tender for the "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus".

Conditions of contract.

Sealed item rate tenders are invited by Indian institute of Astrophysics for the above mentioned work

Estimated cost : Rs 4,98,007.00 (Four lakhs ninty eight

thousand and seven only)

Time of completion : Four (04) Months.

Period of commencement : 7 days from the date of receipt of work order

Retention money/Security Deposit : 5% to be deducted from each RA bill and final bill,

shall be released after one year of completion of work, if any towards the cost of defects rectified by employer due to lack of response of the contractor on completion of defects liability period and on

certification by the engineer -in charge.

Defects liability period : 12 Months.

Amount of liquidated damage : Liquidated Damages will be deducted from the bill

amount while making final payment for delay in completion of work if any, as per the extant rules of

the CPWD.

Escalation : In view of the short duration of the contract, no

escalation will be paid to the contractor on account of changes in the market prices of any items of work or

changes in the cost of living indices etc.

Tax deduction at source : Statutory taxes will be deducted while making

payment from time to time as applicable.

The Director, Indian institute of Astrophysics reserves the right to reject any or all the tenders without assigning any reason whatsoever.

The tenderer shall be responsible for arranging and maintaining at his own cost all **materials**, **tools** and **plants**, **water**, **electricity**, facilities **for workers**, **safety norms** and all other services required for executing the work.

Timely completion of work and quality of workmanship are of prime importance and the work shall be completed within the stipulated period. Cement consumption must match with standard theoretical calculations. Recovery to be effected in the event of not fulfilling the cement consumption. The waterproofing is the main work for which five year performance guarantee need to be provided by the applicator.

I/ We have read the tender notice, specifications, schedule, drawings, general rules and all other contents of the tender conditions, and understand that you are not bound to accept the lowest or any tender you may receive.

I/ we hereby tender for the execution for the work specified above within the time specified above, at the rates specified in the attached bill of quantities and in all respects with these specifications, design, drawings and instructions.

I/we agree that should I/we fail to commence the work specified in the above memorandum an amount equal to amount of earnest money mentioned in the form of invitation of tender shall be absolutely forfeited to the Director.

Dated:	Signature of the contractor with stamp

General conditions of contract.

Item rate tender for works.

The institute reserves the right to alter the scope /or reduce quantum of work before issue of
work order and the contractor shall not have any claim what so ever on this account.

- □ Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However if a discrepancy is found, the rates which correspond with the words worked out by the contractor shall be taken as correct.
- □ If the amount of an item is not worked out properly by the contractor or it does not correspond with the rate written either in figures or words, then the rate quoted by the contractor in the words shall be taken as correct.
- □ When the **rates quoted by the contractor in figures and in words** tally but the amount is not worked out correctly the rate quoted in words by the contractor will be taken as correct and not the amount.
- □ The contractor shall take all precautionary measures to prevent entry of dust, dirt and noise pollution to the adjacent buildings and keep the premises neat and tidy, remove surplus materials and rubbish and shall not cause inconvenience to the staff of IIA. If the contractor or his working people or servants shall break, deface, injure or destroy any part of a building in which they may be working or any buildings, road, kerbs, fence, enclosure, water pipes cables, drains, electric and telephone posts or wire, trees grass or garden. The cost of any such damage and risks arising out of this shall be entirely borne by the contractor.
- □ A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer- in charge. All the measurements of the work may be recorded jointly by the Engineer-in charge and the contractor or their respective representatives. The measurements will be taken at site, as per latest IS code of practice for measurements. All measurements shall be taken with steel tapes only.
- □ The Engineer- in -Charge shall have full powers to the removal from the premises of all materials and bad workmanship, which in his opinion are not in accordance with the specifications.

- □ The Engineer –in- Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors employ upon the work who may be in competent or misconduct himself.
- □ For working on Sundays, holidays and late hours prior permission will be accorded by the Engineer-in charge on the application made by the contractor.
- All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in charge who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.
- □ The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc as institute's property and such materials shall be disposed off to the best advantage of the institute.
- □ The contractor shall execute the whole and every part of the work in the most substantial and workman like manner and in strict accordance with the specifications of the CPWD / DOS / Bureau of Indian Standards. In case of any class of work for which there is no such specifications the contractor shall carry out the work in all respects in accordance with the instructions in writing of the Engineer- in charge.
- □ The Engineer-in charge shall have powers to make any alterations in, omissions from, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to him necessary or advisable during the progress of the work and the contractor shall carry out the work in accordance. The rates for such additional, altered or substituted items of work shall be worked out in accordance with the standard procedure followed in CPWD / DOS.
- □ If at any time after the commencement of the work, the Director shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out, the Engineer- in-Charge shall give notice in writing of the fact to the contractor who shall have no claim to payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

- □ The contractor shall obtain a valid license under the Contract Labour (R&A) act 1970 and the contract labour (Regulation & Abolition) central rules, 1971 before the commencement of the work and continue to have a valid license until the completion of the work. No labour below the age of eighteen years shall be employed on the work. The contractor shall pay to labour employed by him either directly or through sub contractors, wages not less than fair wages as defined in the provision of the contract labour (R&A) act 1970 and the contract labour (R&A) central rules 1971 wherever applicable.
- ☐ The contractor shall at his own expenses arrange for the safety provision as per safety code framed from time to time and shall at his own expenses provide for all facilities in connection therewith
- □ The contractor shall comply with all the provisions of the payment of wages act 1936, Minimum Wages Act 1948, Employees liability act 1938, Workmen's Compensation act 1923, Industrial Disputes Act 1961 and the Contractors Labour (R&A) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made there under from time to time. The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract. Security deposit will not be refunded till clearance certificate from Labour Officer is obtained by contractor.
- □ The contractor shall make his /their own arrangements for water required for the works and nothing extra will be paid for the same, as the water available from the institute source may not be sufficient to meet the construction.
- □ The contractor shall have all the tools and plants necessary to carry out the work such as concrete mixer, vibrator and hoist. The contractor shall employ one graduate engineer during the execution of the work
- □ Certified plumbers should be employed by the contractor on the plumbing and sanitary work.
- □ The standard sectional weights referred to as standard tables in para 5.3.3 in CPWD specifications for works 1977 vol. 1 to be considered for conversion of length of various sizes of M.S bars and tor steel bars in to weight.

Size (diameter mm) Weight Kg/m

Size (mm)	Weight
	(Kg/m)
6	0.222
8	0.395
10	0.617
12	0.888
16	1.579
18	1.999
20	2.467
22	2.985
25	3.855
28	4.836
32	6.316

- The entire work is to be completed within the period stipulated i.e. **Four (04) months** from the 7th day of issue of Letter of Intent/Work Order. The period includes monsoon period also. Time shall be the essence of the contract. After the work awarded, the contractors shall furnish detailed time schedules for the approval of the Engineer-in charge which after approval shall form part of the contract and are to be strictly adhere to.
- □ The maintenance period for the work shall be twelve (12) months and any defects noticed during the period shall have to be rectified by contractor at his cost, failing which the action taken for maintenance Engineer-in charge shall be final over which the contractor will not have any claim.
- The contractor shall extend all co-operations to the contractors executing works such as electrical, air conditioning etc who might be working at the site and shall permit to use scaffolding etc already put up by him.
- The Engineer-in charge will have the right to get any item of the work included in this tender or not executed through other agencies. Schedule of probable quantities in respect of the work and specifications are enclosed. The schedules of probable quantities are liable to alterations by emission, deduction or additions at the discretion of the Engineer-in charge.
- The rates quoted by the tenderer in the schedule shall be inclusive of all taxes and levies. Such rates should provide the break-up of the cost and applicable taxes, levies etc.

- □ Samples of all materials to be incorporated in the works shall be submitted to the Engineer-in charge for his approval without claiming any extra cost. Materials not confirming strictly to the samples are liable to be rejected.
- The employment of any sub-contractors will be subjected to the approval of the Engineer-in-charge. If at any time during the progress of the work the Engineer-in charge determines that any sub-contractor is in competent or undesirable the contractor shall take steps immediately to cancel such sub-contractor. The contractor shall be entirely responsible for all the work included in the contract whether executed by him or through his sub-contractors. In particular it may be noted that the contractor shall obtain steel doors and windows from a reputed manufacturer and before placing order for these, the contractor shall obtain the concurrence of the department for the agency from whom he proposes to obtain steel doors and windows.
- □ The contractor shall prepare a CPM /PERT /BAR chart/ detailed estimate programme within a week's time of issue of Work Order.
- □ All materials and articles brought by the contractor to the work site shall have to be declared at the security gate. Similarly no materials shall be taken out from the departmental premises without proper gate pass which will be issued by the Engineer-in charge.
- □ Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.
- Sample of various materials required for testing shall be provided free of charge by the contractor. Testing charges, if any unless otherwise provided, shall be borne by the department. All other expenditure required to be incurred for taking the samples, conveyance, packing etc. shall be borne by contractor himself. In case of concrete and reinforced concrete work, the contractor shall be required to make arrangement for carrying out compression strength tests at his own cost including preparation of cubes curing etc. complete.
- □ For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature shall be accepted along with the item number.
- □ The contractor shall along the tender submit a schedule of machinery to be used on the work in support of his assurance to adhere to the time schedule specified in the proform given.
- I/We declare that the work will be carried out as per the specifications in tender document and as per the specifications said above. The items of work not covered in the specifications said above will be carried out as per the specifications in the relevant CPWD specifications, and if not covered in CPWD specifications the work will be carried out as in the relevant IS specifications, and if not covered in the any of the above, the work will be carried out as directed in writing by the Engineer- in charge.

Da	ted:					Signature	of the contr	actor with st	amp
_	1/ **	e deciare	tilat tile fa	ies quoted by	y me/us are	on the ba	sis of the ab	ove.	

TENDER FORM

To,

The Director, Indian institute of Astrophysics, Koramangala, Bengaluru - 560034

Dear Sir,

Sub: Tender for project: "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus"

With reference to the tender invited by you for the above proposed work, I /we write this after having:

- a). Examined the designs, drawings, detailed specifications to tenders, sample agreement, the general conditions of contract and special conditions of contract annexed there to (here in after called 'the contract documents') relating to construction.
- b). Visited and examined the site of the proposed work and acquired the requisite information relating to or affecting the tender. We are agreed to the decisions of the pre bid meeting by signing and stamping the minutes of the meeting which is enclosed along with this tender.

I/We undersigned hereby offer to construct the proposed work in strict accordance with the contract document for the consideration to be calculated in terms of the priced schedule of quantities.

I/We undertake to complete the whole of the works as per the attached schedule from the date of issue of intimation by you that our tender has been accepted and up on being permitted to enter site. I/We further undertake that on failure, subject to the conditions of contract relating to extension of time, I/We shall be agreed 'Liquidated damages' for the period during which the work shall remain incomplete.

I/We	hereby	deposit	with	you	as	earnest	money		•••••	(RUPEE	
and I/W	/e fail to ta	ke up the co	ontract w			on to do so		ONLY)	[Carrying	no interes	t]
	nkers are										
1.											
2.											
Place:											
Date:											
									•	f the tenderers of the fire	m
				Na	me of	the person	having po	wer of atto	rney to sign	the contra	Or ct

SPECIAL CONDITIONS

GENERAL:

SPECIAL CONDITIONS OF CONTRACT shall be read in conjunction with GENERAL CONDITIONS OF CONTRACT and both form an integral part of contract. Where the two are at variance, the conditions stipulated in this as SPECIAL CONDITIONS shall supersede relevant GENERAL CONDITIONS.

1. SPECIAL CONDITIONS:

HELMETS:

As a measure of safety, persons employed on the site, Engineers and Supervisors shall wear a helmet of approved make at all times when they are at the site. No visitors shall be allowed on work site without wearing helmet.

Contractors shall make arrangements to provide safety helmets to all the persons employed on the site, Engineers and Supervisors at his cost.

Contractors shall display safety and warning signs at strategic locations at the site.

CHILD LABOUR:

Contractor or his Sub-contractor shall not employ any child labourers on the work site, either permanently or temporarily. It shall be the responsibility of the main Contractor to make sure that no child labour is employed at the site. Contractor shall indemnify the Employer against any consequences statutory or otherwise, that may arise out of employing child labour on the site.

TEMPORARY ELECTRICAL WIRING:

It shall be the responsibility of the main Contractor to make sure that the temporary wiring for construction activity shall adhere to minimum safety precautions as per Electricity Act. All wires / cables shall be drawn on wooden poles properly fixed and shall be drawn overhead.

2 LABOUR SHEDS:

Labour sheds shall be constructed with non-combustible materials like GI sheets or Asbestos sheets. Contractor will not be permitted to use combustible materials such as palm leaves etc., for the construction of the labour sheds.

3. MATERIALS SUPPLY / PROCUREMENT:

No materials will be supplied by the owner. If any increase on the material procurement cost/ labour, P&M will not be entertained for any kind of escalation till completion of the project.

4. <u>BILLING. CERTIFICATION & PAYMENT OF BILLS:</u>

BILLING:

The contractor shall prepare measured bills after completing the quantum of work as per the standard format and submit the same to the Institute for checking and issue of Certificates for Payment. A proper tax invoice (with breakup of the cost and taxes) shall be submitted and bill shall be settled within 30 days of receipt at IIA.

PAYMENT OF BILLS:

The contractor shall be paid by the Employer from time to time based on the certificate for payment

5. REPAIR OF WORKS DONE BY OTHER AGENCIES:

The civil contractor shall make up any deficiency in the finishing of the areas damaged by other agencies in a workmanlike manner to achieve uniform finishing of the building at no extra cost.

6. MATERIAL TESTS:

The contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing.

The contractor shall install a compression testing machine at site to test concrete cubes and solid blocks.

The contractor shall maintain a record of all the test results in an approved format and periodically submit the same for Architect's/Employer's scrutiny.

7. PLANT & MACHINERY:

The contractor is obliged to furnish to the Employer detailed list of equipment, plant, machinery & personnel proposed to be deployed in this project.

8. CLIENT'S & ARCHITECT'S OFFICES & FACILITIES:

The contractor shall supply, erect and satisfactorily maintain in good repair until final completion of works, a well lighted temporary site office.

The contractor shall provide at all times for the duration of the contract survey instruments for the exclusive use of consultants as directed by consultants for carrying out of his duties in connection with the contract.

Such instruments which must be approved by the Architect, shall include but not limited to the following:

- One theodolite & tripod capable of reading to 20 seconds
- One level with horizontal circle and tripod.
- Two metric leveling staffs not less than 3.5mtr high.
- One 100 metre rustless steel band, one 30 metre rustless steel tape and two 30 metre linen tapes.
- An adequate number of ranging rods drop arrows, wooden setting-out pegs, etc.

The contractor shall be solely responsible for all such instruments and equipment's and shall ensure that they are at all times in good repair and adjustment.

9. <u>SANITATION & DRAINAGE DURING CONSTRUCTION:</u>

The contractor shall provide sanitation and drainage facilities on the site as stated subsequently.

The contractor shall strictly control the labour so that the site is not polluted, made dirty or littered with debris, wastes or the likes. Any person found creating mess or litter or pollution shall be removed from the site immediately at contractor's cost.

The contractor shall provide sanitation facilities at convenient locations on site to preserve the cleanliness of the site. The effluent shall be directed as follows:

- Waste water : Collection and pumping out and disposal off the site in approved manner.

- Sewage : Septic tank provision - sludge to be collected and disposed off at intervals as directed.

The location of the above provisions shall be as marked on the site mobilization scheme drawing.

10. DISCREPANCIES:

The contractor shall bring to the notice of the Architect any discrepancies within or between contract drawings and/or the other contract documents prior to preparation of working drawings and commencement of work and shall not proceed with work until the Architect gives clarifications and instructions to proceed.

11. REPORTS BY CONTRACTOR:

- 11.1 The contractor shall file daily category-wise labour return. The report shall indicate scheduled requirement against actual strength.
- 11.2 The contractor shall prepare weekly reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to Architect and shall be reviewed during weekly co-ordination meeting.
- 11.3 The contractor shall submit monthly report along with monthly bills.
- 11.4 Further progress charts and schedules shall be prepared by the contractor as directed by the Architect.
- 11.5 The contractor shall submit re-conciliation statement of all the materials supplied by the Client, if any, along with every running &final bill.

LIST	OF AP	PROVE	ED MA	TERIA	LS

<u>CIVIL</u>

Sl. No.	Material	Make
1	Steel	SAIL – TMT, VIZAG STEEL
2	Cement	ACC/Birla/L&T
3	Acrylic Exterior Emulsion	Asian Paints
4	Plastic Emulsion Paint	Asian Paints
5	Enamel Paint	Asian Paints
6	Aluminium	Jindal, Indal, Hindalco
7	Glass	Saint Gobain, Modi
8	Flush Door	Kutty's Bond Wood, Hunsur Board
9	Vitrified tiles	Nitco/RAK
10	Ceramic tiles	NITCO

WATER SUPPLY AND SANITARY WORKS

Sl.No.	Material	Make				
1	PVC	Astral/Ashirvad/Kisan/Supreme				
2	CPVC	Astral/Ashirvad/Supreme/Prince				
3	Ball valves	Astral/Ashirvad/Hawa /R.B.				
4	G.M. non-return valves	Kirloskar/Zoloto				
5	PVC Gutters	Kisan/approved equivalent				
6	C.P. Fittings	Jaguar/approved equivalent				
7	Bathroom accessories	Jaguar/approved equivalent				
8	SFRC manhole frame and Covers	Southern Concrete Industries/approved equivalent				
9	Kitchen sink	Nirali/ Approved Equivalent				
10	Anchor bolts/pipe support system	Hilti / approved equivalent				
11	CI Grating & MH frame & cover	NECO/ Approved equivalent				

BILL OF QUANTITIES

Bill of Quantities for the work of "ITCC rear entrance corridor painting, flooring and staff toilet renovation at IIA, Bengaluru campus"

(NOTE: Rates shall be quoted after reading the complete Specifications and understanding site conditions)

	ITCC rear side entrance corridor painting, flooring and renovation of toilets									
1. IT	1. ITCC rear side entrance corridor painting and flooring									
Sl.	Description	Quantity	Unit		Rate (Rs.)	Amount				
No				In Figures	In Words					
1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 meters lead as per direction of Engineer - in - charge.									
1.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	2.00	cum							
2	ENAMEL PAINT: Painting wood / steel work with one or more coats of SYNTHETIC ENAMEL PAINT of first quality and approved colour to give an even shade including cleaning the surfaces, filling the crevices with approved filler, scaffolding, etc; complete all as per specification.	145.00	sqm							

3	Painting plastered surfaces with TWO or more coats of ACRYLIC EMULSION PAINT of first quality and approved colour to give an even shade over a coat of water thinnable cement primer / oil based cement primer including cleaning the surfaces, filling the crevices with approved filler, applying a coat of approved putty on whole surface and rubbing the surface to achieve desired smooth surface, scaffolding, etc; complete all as per specifications. (Rate to include cost of primer, putty also).	465.00	sqm		
4	Providing and laying vitrified tile flooring / skirting using first/premium quality vitrified tiles as per IS:15622 - 2006 Group B I a, of specified sizes of Somany / Johnson /AGL/ Kajaria/Spartek /Regency/ Navin/ Bell or equivalent make and approved colour with straight edge laid with a gap of 5 to 8mm thick BAL-CEM adhesive (gold star) of M/s. Bal-Endura Adhesive Ltd. or equivalent, and joints grouted using the mixture of Bal-grout and Bal-GT1 or equivalent of approved shade / colour having paper joint and finishing to required level, etc., complete all as per specifications and as directed by Engineer-in-charge at all levels for: Basic rate 90/Sft.				
4.1	Skirting / dadoing using Vitrified tile, Polished double charged with nano tech in light series tiles of size 600mm (±5mm) x 600mm (±5mm) x 9 to 9.5mm (±0.5mm) thick	79.00	sqm		
				Total (A)	

2. R	2. Renovation of Toilet									
Sl.	Description	Quantity	Unit	I	Rate (Rs.)	Amount				
No				In Figures	In Words					
1	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per directions of Engineer-In-Charge. For door/ window/ clerestory window	20.00	sqm							
1.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 meters lead as per direction of Engineer - in - charge.									
	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	3.00	cum							
2	Removing and refixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.									
2.1	Door chowkhats	4.00	each							
3	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 meters lead. For thickness of tiles 10 mm to 25 mm and making good the surfaces including the plastering when where required.	95.00	sqm							

4	PLAIN CEMENT CONCRETE: Providing and laying cement concrete using 40 mm nominal size graded hard granite stone aggregate obtained from quarry including compaction, finishing top surface to level, curing, cost of form work, etc., complete as per specifications. Mix ratio is specified is for cement: coarse river sand: graded stone aggregate. IN FOUNDATION AND PLINTH/ SUB-BASE TO FLOORS.				
4.1	PCC 1:4:8.	2.00	cum		
5	and laying in position Reinforced Cement concrete using 20mm nominal graded hard granite stone aggregate obtained from approved including mechanical mixing, vibrating, compaction finishing, curing etc; complete as per specifications but excluding the cost form works and steel reinforcement. (Rate includes labor for keeping embedment if any, where required while casting). Mix ratio specified is for cement: Coarse river sand: Graded stone aggregate, UP TO FLOOR FIVE LEVEL. In walls (Any thickness), including attached pilasters, buttresses, plinth and string coarses, fillets, columns, pillars, piers, abutments, posts and struts, etc,				
5.1	RCC 1:1.5:3.	1.50	cum		
6	STEEL REINFORCEMENT: Steel reinforcement for all RCC items including decoiling, cutting, hooking, bending, cranking, fabricating to required shape, placing in position and tying the system with soft drawn annealed GI binding wire of diameter not less than 1.00mm with 2 strands etc; complete all as per specifications at all heights (binding wire will not be measured for payment).				
6.1	Thermo-mechanically Treated (TMT) bars - Fe415	0.25	MT		

7.1	BRICK MASONRY: Providing and constructing burnt brick masonry with approved quality of modular bricks of standard size of class designation 5.0 Newton per sqmm (table moulded) with cement mortar 1:4 for Basement and superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications. Using bricks of class designation '5' (Minimum average compressive strength not less than 5.0 N/ Sq.mm) in cement mortar 1:4.	1.50	cum		
8	HALF BRICK MASONRY: Construction of partition wall 10 cms thick with table moulded modular burnt bricks of class designation 5.0 Newton per sqmm with cement mortar 1:4 including providing and fixing plaster mesh manufactured out of hot dipped galvanized iron of nominal thickness 0.35 mm. 100mm. wide as per I.S. 2212/1991 at 7.5 m. c to c including cost of materials, labour charges, scaffolding, curing complete as per specifications.				
8.1	Using bricks of class designation '5' (Minimum average compressive strength not less than 5.0 N/Sq.mm) in cement mortar 1:3.	18.00	sqm		
9	PLASTERING INTERNAL SURFACES: Plastering 20mm thick with cement mortar specified below, finished smooth with lime neeru, including scaffolding, curing, etc; complete for INTERNAL SURFACES of stone masonry/brick masonry walls sills, jambs, etc; complete all as per specifications UPTO FLOOR LEVEL, mix specified is for cement: fine sand. NOTE: CM 1:3 OR 1:4 is generally applicable for ceilings and RCC surfaces unless otherwise specified.				
9.1	with CM 1:5.	35.00	sqm		

9.2	and fixing chicken mesh, 8mm steel rods 15cms centre to centre both ways and plastering with cement mortar 1:3 and with drip moulding including centering, formwork, curing etc complete. (Inclusive of cost of steel and fabrication charges).	5.00	sqm		
10	Providing and laying vitrified tile flooring / skirting using first/premium quality vitrified tiles as per IS:15622 - 2006 Group B I a, of specified sizes of Somany / Johnson /AGL/ Kajaria/Spartek /Regency/ Navin/ Bell or equivalent make and approved colour with straight edge laid with a gap of 5 to 8mm thick BAL-CEM adhesive (gold star) of M/s. Bal-Endura Adhesive Ltd. or equivalent, and joints grouted using the mixture of Bal-grout and Bal-GT1 or equivalent of approved shade / colour having paper joint and finishing to required level, etc., complete all as per specifications and as directed by Engineer-in-charge at all levels for: Basic rate 90/Sft.				
10.1	Skirting / dadoing using Vitrified tile, Polished double charged with nano tech in light series tiles of size 600mm (±5mm) x 600mm (±5mm) x 9 to 9.5mm (±0.5mm) thick	18.00	sqm		
11	WALL TILES: Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	85.00	sqm		

12	PAINTING OF INTERNAL SURFACES: Painting internal plastered surfaces with two or more coats of super acrylic emulsion paint of approved brand and colour (Berger or Asian or equivalent) to give an even shade with required finish over a coat of water thinnable cement primer including cleaning the surfaces, filling the crevices with approved filler, scaffolding, etc., complete all as per specification.	50.00	sqm		
13	ENAMEL PAINT: Painting wood / steel work with one or more coats of SYNTHETIC ENAMEL PAINT of first quality and approved colour to give an even shade including cleaning the surfaces, filling the crevices with approved filler, scaffolding, etc; complete all as per specification.	23.00	sqm		
13.1	plastered surfaces with TWO or more coats of ACRYLIC EMULSION PAINT of first quality and approved colour to give an even shade over a coat of water thinnable cement primer / oil based cement primer including cleaning the surfaces, filling the crevices with approved filler, applying a coat of approved putty on whole surface and rubbing the surface to achieve desired smooth surface, scaffolding, etc; complete all as per specifications. (Rate to include cost of primer, putty also).	60.00	sqm		
14	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls etc.				

14.1	Chlorinated Polyvinyl-Chloride(CPVC)pipe 20mm outer dia.	20.00	meter		
14.2	Chlorinated Polyvinyl-Chloride(CPVC)pipe 25mm outer dia.	20.00	meter		
14.3	Chlorinated Polyvinyl-Chloride(CPVC)pipe 32mm outer dia.	30.00	meter		
15	Providing, laying and laying jointing unplasticised PVC pipes and specials of working pressure as mentioned below confirming to IS:4985 including cost of necessary jointing materials, clamps, labour for excavation of trenches, testing, refilling etc., complete all as per specifications.				
15.1	6 kg/ sqcm and 110mm OD	25.00	meter		
16	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).	0.18	cum		
17	Providing and fixing in position best Indian make marble/granite partition Slab for urinals, size 610x1150mm, 20mm thick (tolerance + /- 1mm) polished on both sides and machine cut edges with exposed corners rounded etc all as specified and directed.	2.00	each		
18	Providing and fixing granite counter wash hand basin of oval shape and size 550x400mm of approved make with basin at bottom including fixing of 15mm CP pillar cock of approved make, 15mm heavy quality flexible PVC inlet pipe connection and 15mm Cp brass stop cock, 32mm CP brass waste coupling, 32mm CP waste pipe etc complete all fittings inclusive.	2.00	each		

19	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, with jaguar push type flushing system cat.no-1085 & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required W.C. pan with ISI marked white solid plastic seat and lid. Make: 1085 Jaguar flushing, Hindware model no. Cat No: 20098, Star White.	2.00	each		
20	Providing and fixing in position large urinals comprising A) White glazed vitreous chinaware of approved make large urinal size 600x400x375mm with necessary fixtures conforming to IS: 2556 part-vi bearing ISI mark. B) 15mm NB CP brass concealed stop cock of approved make conforming to IS:781 on flushing line one for each urinal in the range. C) CP brass distribution pipe and spreader of best approved quality to urinal with necessary CP brass specials, clamps etc., one for each urinal in a range. D) One number 32mm CP brass waste coupling-one for each urinal. E) One number 32mm PVC waste pipe and specials from each urinal to floor trap / half round channel. Complete all as specified with approved fittings. Hindware model no. Cat No.:60002. F)CP spreader Viking Cat No-51081 G) CP urinal flush valve Viking Cat No -1077	2.00	each		
21	Providing and fixing in position best quality approved make liquid soap holder as mentioned below with CP brass brackets, CP cap screws, washers etc, fixed to wall with necessary plugs etc. all specified and directed.				

21.1	With glass container.	2.00	each	
22	Providing and fixing panelled or panelled and glazed	5.00	sqm	
	shutters for doors, windows and clerestory windows,			
	including ISI marked M.S. pressed butt hinges bright			
	finished of required size with necessary screws,			
	excluding panelling which will be paid for separately,			
	all complete as per direction of Engineer-in-charge.			
	Second class teak wood of 35 mm thick shutters. Including locks, tower bolts and necessary hardware			
	fixtures.			
23	Providing and fixing brass bib cock of approved			
23	quality: Jaguar Cat No.5041			
22.1		5.00	1-	
23.1	15 mm nominal bore. Two in one bib cock	5.00	each	
24	Providing and fixing MIRROR Rectangular shape of	2.00	each	
	1500x450mm with PLASTIC MOULDED FRAME of			
	approved make and shade with 6mm thick hard board backing, type.			
	backing, type.			
25	Providing and fixing Health faucet. (Make: Jaguar)	2.00	each	
26	Providing and fixing handle lock. Make Godrej	4.00	each	
27	Providing and fixing Nahani trap with CP/SS gratings	6.00	each	
28	Fixing of doors/shutters/frames and ventilators	4.00	each	
	provided by I.I.A. Following fixtures included in			
	contractor scope such as, S.S Mesh for ventilators,			
	handle locks, door closer, door stopper, hinges, grills			
	for ventilators and required hard wares.			
				Total (B)

Sl.No	Description	Amount	
1	ITCC rear side entrance corridor painting, flooring and renovation of toilets (A)		
2	Renovation of Toilet (B)		
	Sub Total (A+B)		
	GST% (C)		
	Grand Total (A+B+C)		

(Grand Total amount in words Rs	
	,)

Date:

Place:

Signature of the contractor with seal





