

INDIAN INSTITUTE OF TECHNOLOGY ROPAR



SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus

NIT NUMBER : IITRPR/EE/T/22/237

ISSUED TO :

SUBMITTED TO : The Registrar
IIT Ropar
Rupnagar, Punjab

INDEX

***Name of the Work : SITC of LED flood lights in Cricket pitch of IIT Ropar
permanent campus***

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NIT Amounting to Rs. 11,33,994/- (Rupees Eleven Lac Thirty Three Thousand Nine Hundred Ninety Four Only) [Certified that this NIT contains pages (55 only) pages + BOQ (3 Only) - Annexure A (1 only) + List of Acceptable makes of electrical materials – Annexure B Page (1 Only) Total 58 (Fifty Eight) pages only]

PART – A

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

WORKS AND ESTATE SECTION

TENDER DOCUMENT

Name of Work: SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus

| S.NO. | DESCRIPTION | PAGE |
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| 1 | PART-A (NIT, Form 6 & 8, Performa of schedules etc.) | 3-32 |
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| 3 | PART-C (BOQ attachment) | 56-58 |

Notes: The following will be the part of Contract Agreement:

1. CPWD General Conditions of Contract of 2020

Modified up to date for details refer to:

https://cpwd.gov.in/Publication/GCC_Constructions_works_2020.pdf

Estimated Cost: Rs. 11,33,994/- (Rupees Eleven Lac Thirty Three Thousand Nine Hundred Ninety Four Only)


Assistant Executive Engineer


Executive Engineer

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

WORKS & ESTATE

NOTICE INVITING TENDER

The Registrar, IIT Ropar invites on behalf of Board of Governors of IIT Ropar sealed percentage rate tender from for the following work:-

NIT No: IITRPR/EE/T/22/237

**Name of work: SITC of LED flood lights in Cricket pitch of IIT Ropar
Permanent Campus**

- 1. Estimated Cost** Rs. 11,33,994/-
- 2. EMD:** Rs. 22,680/-
- 3. Time of completion** 30 days

The last time and date of submission of the bid is at **12:00 PM on 23.11.2022**. The bid form and other details can be downloaded from the website **www.iitrpr.ac.in/tenders**


Registrar

**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR
TENDERING FORMING PART OF NIT AND TO BE POSTED ON
WEBSITE**

The Registrar, on behalf of Board of Governors of IIT ROPAR, invites percentage rate tenders from registered contractors in appropriate class in CPWD/ MES/ BSNL /Railways/ State PWDs/ OEM/ OEM authorized agency for the following work:

| Name of the work and location | Estimated cost put to the tender (Rs.) | Earnest Money Deposit (Rs.) | Period of Completion | Last date for submitting the EMD, Tender Fee & other documents | Time & date of opening of the Tender |
|--|---|------------------------------------|-----------------------------|---|---|
| SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus | Rs. 11,33,994/- | Rs. 22,680/- | 30 days | 12:00 PM on 23.11.2022 | Opening at 3.00 PM on 23.11.2022 |

A. ELIGIBILITY CRITERIA :

- 1 Contractors who fulfill the following requirements shall be eligible to apply:-
 - a. Should have completed the works during last seven years ending on previous day of last day of submission of tender out of which at least one should have been executed in Government Institutions as mentioned below :
 - i. 3 (three) “**similar works**” each of value not less than 40% of the estimated cost put to tender.

OR

- ii. 2 (two) “**similar works**” each of value not less than 60% of the estimated cost put to tender.

OR

- iii. (one) similar work of value not less than 80% of the estimated cost put to tender.***Similar works** means “**Supply and installation of LED flood lights in high mast lighting poles**” only.

- b. Original Equipment Manufacturers of LED Flood lights / their Authorized dealers / Contractor who shall associate with the respective OEM once work is awarded and having a valid **electrical contractor license**.
- c. Joint ventures and subletting are not accepted.

B. Documents to be submitted with tender :

i. (Envelope one) :-

- a. Enlistment order of the contractor.
- b. Required experience/completion certificate of similar works.
- c. Certificate of registration for EPF and ESIC.
- d. Copy of GST Registration.
- e. Tender document with signature on all pages.
- f. Earnest Money Deposit in favour of IIT Ropar Revenue Account payable at Ropar/Rupnagar.
- g. PAN registration with Income Tax Department.
- h. Electrical contractor license.
- i. Labour License.

(Envelope Two) :-

- a. Price quoted for the respective items in words and figures
- b. Signatures & stamp.

- ii. Both the envelopes shall be placed in another envelope with due mention of Name of work, date & time of opening of tenders and to be submitted in Works & Estate Section, 2nd Floor, East Wing of M. Visvesvaraya Block, IIT Ropar Birla Farms, Permanent Campus, Rupnagar - 140001.

Second envelope submitted by intending bidders shall be opened only to those bidders, whose EMD and other documents placed in the envelope are found in order.

The tender submitted shall be opened at 03:00 PM on 23.11.2022.

C. The tender submitted shall become invalid if:

- a. The bidder if found ineligible.
- b. The bidder does not submit all the documents as stipulated in the tender document.
- c. If any discrepancy is noticed in the documents submitted physically in the office of tender opening authority.

D. OTHER CONDITIONS:

1. The intending bidder must read the terms and conditions of Form-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on the website shall form part of the bid document.
3. The agreement shall be drawn with the successful bidders on prescribed Form No. Form-8 as modified and corrected up to date which is available as a Govt. of India Publication. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
4. The time allowed for carryout the work will be 365 days (Three hundred and sixty five 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 document.
5. The site for the work is available.
6. The bid document consisting of plans, specifications the schedule of quantities of various types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.iitrpr.ac.in/tenders
7. The bid shall be submitted in the Works & Estate Section, 2nd Floor, East Wing of M. Visvesvaraya Block, IIT Ropar Birla Farms, Permanent Campus, Rupnagar - 140001 with details of the mandatory documents such as Demand Draft or Pay order or Banker's cheque or Deposit at call Receipt or Fixed deposit Receipts and

Bank Guarantee of any scheduled Bank towards cost of bid document and EMD in favor of IIT Ropar Revenue Account, payable at Ropar/Rupnagar, Punjab.

Other necessary documents also can be seen in the office of the Executive Engineer, IIT Ropar between hours of 10:00 AM to 5:00 PM from the day of publishing of NIT for the work up to one day before the last date of submission of tender every day except on Saturdays, Sundays and Public Holidays free of cost.

8. The tender shall be accompanied with earnest money deposit.
9. The contractor whose tender is accepted will be required to furnish a **performance guarantee of 3% (Three Percent)** of the tendered amount within the period specified in Schedule F. This guarantee shall be 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 of any scheduled bank or Government Securities 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 EMD will be forfeit.

10. The Institute reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed to be suitable by it, if too many bids are received satisfying the laid down criterion.
11. Copies of other drawings and documents pertaining to the works will be open for inspection by the bidders at the office of the above mentioned officer.

Bidders, 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 the risks, contingencies and other circumstances which may influence or affect their tender. The bidders shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges 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 a tender by the bidder 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.

12. The competent authority on behalf of the Director, IIT ROPAR does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all of the tenders received without the assignment of any reason.
13. All tenders, in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the bidders, shall be summarily rejected.
14. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
15. The competent authority on behalf of the Director, IIT ROPAR reserves to himself the right of accepting the whole or any part of the tender and the bidders shall be bound to perform the same at the rates quoted.
16. The contractor shall not be permitted to tender for works in the IIT ROPAR responsible for award and execution of contracts in which his near relative is posted as Group A Officer in Accounts Section or as an officer in any capacity between the grade of Registrar and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the IIT ROPAR. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of the concerned Department / termination of the contract from this institute.
17. No Engineer of gazetted 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 two years after his retirement from government service, without the previous permission of the Government of India in writing. This contract is liable to be canceled 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.

18. The tender for the works shall remain open for acceptance for a period of **Thirty days** from the date of opening of tenders. If any bidder withdraws his tender before the said period or issue of letter of acceptance, which-ever 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 a liberty to forfeit 50% of the said earnest money as aforesaid. Further, the bidders shall not be allowed to participate in the re-tendering process of the work.
19. This Notice Inviting Tender shall form a part of the contract document. The successful bidder/contractor, on acceptance of his tender by the Accepting Authority, shall within **30 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 C.P.W.D. **Form-8** as modified and corrected.
20. Tenders with any condition including conditional rebates shall be rejected forthwith. However, tenders with unconditional rebates will be acceptable.
21. Bidders must associate themselves with agencies of the appropriate class eligible to tender for each of the minor components of work.
22. The eligible bidders shall quote rates for all items of major components as well as for all items of minor components of work.
23. Entire work under the scope of composite tender including major and all minor components shall be executed under one agreement.
24. Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works. The Earnest Money will become part of the security deposit of the major components of work.
25. The acceptance of the tender shall be conveyed by the **Executive Engineer, IIT Ropar** on behalf of the Director, IIT ROPAR.


Registrar

For & on behalf of the Board of Governors, IIT Ropar

ITEM RATE TENDER AND FOR WORKS CONTRACT

Tender for work of **"SITC of LED flood lights in Cricket pitch of IIT Ropar Permanent Campus**

"

(i) To be submitted by **12:00 PM on 23.11.2022** in the Works and Estate Section, East Wing, 2nd Floor of M. Visvesvaraya Block, IIT Ropar Birla Farms, Permanent Campus, Rupnagar - 140001.

(ii) To be opened in the presence of tenders who may be present at **3:00 PM on 23.11.2022** in the Office of Executive Engineer, 2nd Floor of M. Visvesvaraya Block, IIT Ropar Birla Farms, Permanent Campus, Rupnagar - 140001.

1) Issued _____ to _____ :

Executive Engineer, IIT Ropar

TENDER

I/We have read and examined the Notice Inviting tender, schedule, A,B,C,D,E & F. Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work.

A sum of Rs.22,680/- is hereby forwarded in cash/Receipt Treasury Challan/Deposit at call receipt of a Scheduled Bank/Fixed deposit receipt of Scheduled bank/demand draft of scheduled bank/bank guarantee issued by scheduled bank as earnest money. If I/we fail to furnish the prescribed performance guarantee or fail to commence the work within the prescribed period. I/we agree that the said Director, IIT, Ropar or his successors in office shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail of commence work as specified, I/we agree that Director, IIT, Ropar or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12 of the tender form.

Further, I/We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the tendering process of the work.

I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and

shall not communicate information derived therefrom 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 Institute

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

Dated _____

Witness:

Address:

Occupation:

Signature of contractor _____

Postal Address: _____

Email : _____

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 Board of Governors, IIT Ropar for a sum of Rs. _____ (Rupees _____ only). The letter referred to below shall form part of this contract Agreement:-

- i)
- ii)
- iii)

Dated: _____

For on the behalf of Board of Governors, IIT ROPAR
Signature _____

PERFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of Quantities.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

| S.No. | Description of item | Quantity | Rates in figures & words at which the material will be charged to the contractor | Place of issue |
|-------|---------------------|----------|--|----------------|
| 1 | 2 | 3 | 4 | 5 |
| -NIL- | | | | |

SCHEDULE 'C'

Schedule of Tools and Plants to be hired to the contractor

| S.No. | Description of item | Hire charges per day | Place of issue |
|-------|---------------------|----------------------|----------------|
| 1 | 2 | 3 | 4 |
| -NIL- | | | |

SCHEDULE 'D'

Extra schedule for specific requirements / document as attached in for the work if any

SCHEDULE 'E'

Refer to General Conditions of contract.

| | |
|-----------------------------|---|
| Name of Work: | SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus |
| Estimated cost of the work: | Rs. 11,33,994/- |
| Earnest Money Deposit | Rs. 22,680/- |
| Performance Guarantee | 3% of the tendered value of the work |
| Security Deposit | 2.5% shall be deducted from the running bills. |

SCHEDULE 'F'

General rules and direction:

Officer inviting tender:

Executive Engineer,
IIT ROPAR

Definitions:

- | | |
|----------------------------------|---|
| i. Engineer-in-Charge: | Executive Engineer, IIT Ropar |
| ii. Accepting Authority: | Registrar, IIT Ropar |
| iii. Standard Schedule of Rates: | Delhi Schedule of Rates 2021 |
| iv. Department: | Works and Estate, IIT Ropar |
| v. Standard contract Form: | GCC 2020, Form-8 as modified & corrected up to date |

Clause 1

- | | |
|---|--------|
| i. Time allowed for submission of performance guarantee from the date of letter of acceptance | 5 days |
| ii. Maximum allowable extension with late fee @ 0.1 % per day of performance guarantee amount | 3 days |

beyond the period as provided in i.
above

Clause 2

Authority for fixing compensation under
clause 2

Registrar, IIT Ropar

Clause 5

i. Number of days from the date of issue
of letter of acceptance for reckoning date
of start

3 days

ii. Time allowed for execution of work

30 days

i. Authority to decide

a. Extension of time

Executive Engineer, IIT Ropar

b. Rescheduling of milestones

Registrar, IIT Ropar

SALIENT/MANDATORY REQUIREMENTS FOR THE TENDER

Name of the work: SITC of LED flood lights in Cricket pitch of IIT Ropar
 permanent campus

1. The bidder is advised to read and examine the tender documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.
2. Separate schedule of quantity is included in this tender for civil and electrical items of work. The contractor shall quote the item rates in figures and words accurately so that there is no discrepancy in rates written in figures and words.
3. Time allowed for the execution of work is 30 days.
4. The contractor(s) shall submit a detailed program of execution in accordance with the master programme / milestone within 7 days from the date of issue of award letter.
5. Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras. The contractor shall at all times indemnify and keep indemnified the owner and its officers, servants and agents from and against all third party claims whatsoever (including time not limited to property loss and damage, personal accident, injury or death of/or property or person of any sub-contract and or the servants or agents of the contractor any subcontractor(s) and or the owner and the contractor shall at his own cost and initiative at all times, maintain all liabilities under Workman's Compensation Act/ Fatal Accident Act, Personal Injuries, Insurance Act and/ or their Industrial Legislation from time to time in force.
6. For electricity requirements for carrying out work, the contractor(s) shall be provided with temporary electric connection at suitable place by the Institute if possible, on request of the contractor. The required cable and electrical meter shall be arranged by the contractor. The monthly consumption of electricity shall be recovered from the running bills of the contractors on the approved rates of the Institute. The institute cannot be held liable to provide any office or location to set up office.

7. The schedule of requirement is as per Annexure - 'A' & the evaluation of bid will be on the basis of total bid value
8. The rates quoted shall be inclusive of all taxes, duties octroi, works contract tax, cartage loading, GST and any other statutory taxes complete in all respects, valid for a period of one year from the date of award of contract.
9. Bid security of the unsuccessful bidders will be returned to them.
10. In the event of any breach of the terms of the contract, the contractor shall have to bear the penalty specified in the present terms. However, upon a material breach of the contract terms which is not remedied by the contractor within 7 days, IIT Ropar shall be entitled to terminate the present contract without any notice and the contractor shall be required to make good any damage incurred by IIT Ropar.
11. The service provider shall at his own risk and cost ensure that their employees deployed to carry out the work of IIT Ropar are insured against all risks that may be associated with the job.
12. Labour Laws: The contractor will follow all labour laws / acts of Central Govt., Local Govt. applicable from time to time. He should maintain proper attendance register and record of wages paid to the workers and these documents should be submitted to IIT Ropar while raising their monthly bills along with record of complaints and whenever asked. He will obtain necessary Labour license required for engaging labour at site. The bidder should note that wages paid to the workers by the contractor should not be less than minimum wages notified by the Chief Labour Commissioner (Central) from time to time for their respective category. The agency shall comply with all Acts, Laws and Regulations applicable to the area with regard to performance of the work and including, Minimum Wages Act, 1948, Contract Labour (R&A) Act, 1970, Workmen's Compensation Act, 1923 Industrial Dispute Act, 1947 and take such steps as may be deemed necessary in this regard. It will be solely contractor's responsibility to face any consequences arising out of non compliance of various labour laws. If IIT Ropar has to incur some expenditure due to nonpayment of wages to the laborers or non compliance of various labour laws by contractor, the same will be recovered from contractor's bill or from performance security or any other amount due, along with 10% departmental charges.
13. Force Majeure: Neither party shall bear responsibility for the complete or partial nonperformance of any of its obligations (except for failure to pay any sum which

has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake, Pandemic and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after signing of the present contract. In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

14. Arbitration: In the unfortunate situation if any all disputes, disagreement and controversies arising in any manner, which cannot be settled by mutual agreement between the two parties, shall be resolved through arbitration. The number of arbitrator shall be ONE, shall be appointed by Director, IIT Ropar. The decision of sole arbitrator shall be final and binding to both the parties. All provisions of Arbitration and Conciliation Act 1996 (with amendments) shall apply and the legal place of arbitration shall be IIT Ropar, Rupnagar, Punjab. The language of arbitration proceedings shall be English. The Court which have jurisdiction in the matter is District Court, Rupnagar, Punjab.

INTEGRITY AGREEMENT

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

BETWEEN

IIT ROPAR represented through its Registrar, (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/ firm/ 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 here of 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 **SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus** 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 witnesses 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 Bidder(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.
 - d. 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)

1. 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.

2. The Bidder(s)/Contractor(s) commit 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:
 - a. 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.
 - b. 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.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(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.
 - d. 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 addresses of foreign agents/representatives, if any. Either the Indian 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.
 - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose 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 willful 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 the 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 terminate/ determine the Contract, if already executed or exclude the 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/ 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 employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC 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 conforming to the anti corruption 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 statements 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

1. 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 Subcontractors/ 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.

Article 7- Other Provisions

1. This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters 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 intentions.
5. It is an 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/Contact 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 Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

CONTRACT AGREEMENT

(ON RS.100 NON JUDICIAL STAMP PAPER*)

(* = To be purchased and submitted by the Contractor.)

THIS AGREEMENT is made on _____ **2022**..... Between **Executive Engineer, Indian Institute of Technology Ropar, Punjab** (hereinafter referred to as "Client" which expression shall include his successors and assigns), and whose principal place of office is at IIT Ropar, Nangal Road, Rupnagar Punjab India 140001 of the One Part,

AND

M/s..... having its registered office at (Hereinafter referred to as "the Contractor") which expression shall unless excluded by or repugnant to the context be deemed to include his successors, heirs, executors, administrators, representatives and assigns) of the other part for

- I. **WHEREAS** the Client invited bids through open tender, vide Notice Inviting Tender datedfor the work of "SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus" under **Tender No.**
- II. **AND WHEREAS** the Contractor submitted his bid vide..... in accordance with the bid documents and represented therein that it fulfills all the requirements and has resources and competence to provide requisite services to the Client
- III. **AND WHEREAS** the Client has selected M/s..... as the successful bidder ("the Contractor") pursuant to the bidding process and negotiation of contract prices, awarded the **Letter of Acceptance (LoA) No.**, to the Contractor on for a total sum of [Rupees Only].
- IV. **AND WHEREAS** the Client desires that the "Comprehensive AMC of Passenger Lifts at IIT Ropar(Schindler make lifts)" as defined in the Bidding Document) be provided, performed, executed and completed by the Contractor, and wishes to appoint the Contractor for providing requisite services to the Client.

- V. AND WHEREAS** the Contractor acknowledges that the Client shall enter into contracts with other contractors / parties for Construction of platform for SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus for its office in cases the Contractor falls into breach of the terms and conditions as stipulated in the Tender Document and shall waive its claim whatsoever in this regard.
- VI. AND WHEREAS** the terms and conditions of this Contract have been fully negotiated between the Client and the Contractor as parties of competent capacity and equal standing.
- VII. AND WHEREAS** the Contractor has fully read, understood and shall abide by all the terms and conditions as stipulated in the Tender Documents for providing “SITC of LED flood lights in Cricket pitch of IIT Ropar permanent campus” for Client’s office, failing which the Contract is liable to be terminated at any time, without assigning any reasons by the Client.
- VIII.** The Client and the Contractor agree as follows:
1. In this Agreement (including the recitals) capitalized words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
 2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a. Notice Inviting Tender Form 6, Form No. 7, Performa of Schedules.
 - b. The Letter of Intent /Acceptance (LoI/A) issued by the Client.
 - c. Price Schedule
 - d. Performance Bank Guarantee.
 - e. Integrity Pact.
 - f. The Addenda, if any, issued by the Client.
 - g. Any other documents forming part of this Contract Agreement till date.
 - h. Charges – Schedule annexed to this Article of Agreement
 - i. Supplementary Agreements executed from time to time.
 3. Any changes/modifications/amendments required to be incorporated in the Contract Agreement at a later stage shall be discussed and mutually agreed by

both the parties and such supplementary agreements shall be binding on both the parties and shall form the part of this contract agreement.

4. This Contract shall be governed by and construed in accordance with the laws of India. Each Party hereby submits to the jurisdiction as set out in the Dispute Resolution Procedure in the Conditions of Contract.

IX. **IN WITNESS WHEREOF** the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year indicated above.

Signed on behalf of the Contractor

Signed on Behalf of the Institute

(Authorized Signatory)

**(Executive Engineer, IIT
ROPAR)**

| | | |
|--|--|--|
| <On Organization Letter Head> | | |
| (For Works Contracts, including Turnkey contracts) | | |
| <CERTIFICATE> | | |
| Tender No. :- Date:- | | |
| <p>I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries and hereby certify that this bidder is not from such a country and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.</p> | | |
| <u>OR (whichever is applicable)</u> | | |
| <p>I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries and hereby certify that this bidder is from _____ (Name of Country) and has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I also certify that this bidder fulfills all the requirements in this regard and is eligible to be considered.</p> | | |
| <i>(Copy/ evidence of valid registration by the Competent Authority is to be attached)</i> | | |
| | | |
| Signature of Bidder/ Agent | | |
| Name: _____ | | |
| Designation: _____ | | |
| Organization Name: _____ | | |
| Contact No. : _____ | | |

(To be given on Company Letter Head – For tender value below Rs.10 Crores)
(To be given by Statutory Auditor/ Cost Auditor/ Cost Accountant/ CA for tender value
above Rs.10 Crores)

To,
The Registrar,
Indian Institute of Technology Ropar Rupnagar, Punjab - 140001

Subject: - **Declaration of Local Content** Tender Reference No: _____

Name of Tender/ Work: _____

1. We hereby declare that an item offered has _____% local content (DPIIT OM No. P-45021/2/2017-PP (BEII) dated 16.09.2020) & (DPIIT OM No. P-45021/102/2019-BE-II-Part(1) (E-50310) dated 04.03.2021)

2. Class of Supplier: ☐ Class - I ☐ Class - II

“Local Content” means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

“False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours faithfully,

(Signature of the bidder, with Official Seal)

<TO BE PROVIDED BY OEM ON LETTER HEAD>

(To be given on Company Letter Head – For value below Rs.10 Crores)

(To be given by Statutory Auditor/ Cost Auditor/ Cost Accountant/ CA for value above
Rs.10 Crores)

To,

The Registrar,

Indian Institute of Technology Ropar Rupnagar, Punjab - 140001

Subject: - Declaration of Country of Origin of Goods

Tender Reference No:

Name of Tender/ Work:

1. Country of Origin of Goods being offered: _____

(OM No. 6/18/2019-PPD dated 23.07.2020)

“*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours faithfully,

(Signature of the bidder, with Official Seal)

PART - B

SPECIAL CONDITIONS

1. In the Contract (as hereinafter defined) the following definitions words and expressions shall have the meaning hereby assigned to them except where the context otherwise required.
 - a. "Institute / Department" shall mean the Indian Institute of Technology Ropar (IIT Ropar)
 - b. The "President" shall mean the Board of Governors, IIT ROPAR.
 - c. The term "Director General of Works" shall mean the Director, IIT Ropar.
 - d. "Superintending Engineer" shall mean the Registrar of the Institute, who as overall In charge and head of the administration shall direct the contract.
 - e. The "Engineer-in-charge", who shall administer the work, shall mean the Executive Engineer, IIT Ropar.
 - f. "Accepting authority" shall mean the Registrar, IIT ROPAR on behalf of the Director.
 - g. "Site Engineers" shall mean the AEE (Civil)/ Junior Engineer (Civil)/Junior Engineer (Electrical)/ Engineer appointed by the Works & Estate department.
 - h. No labour huts/ jhuggies shall be allowed to be constructed in the campus except for the security persons at work site with proper sanitation arrangements after due approval of the Registrar.
 - i. Any damage caused to the existing roads, power cables, telephone cables, water lines and structures by the contractor's equipment, shall have to be made good by the contractor at his own cost.
 - j. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
 - k. No payment shall be made to the contractor for any damage caused by rain, snow fall, floods, earthquake or any other natural causes whatsoever during execution of work. The damages of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.
 - l. For construction works which are likely to generate malba/rubbish to the tune of more than a tempo/truck load, contractor shall dispose of malba, rubbish & other

unserviceable materials and wastes at their own cost to the notified/specified dumping. The malba / rubbish shall required to be removed from site of work on daily basis, if the same is not removed a token penalty of Rs. 250/- per day shall be levied till the removal of malba. This shall be recovered from the bill. The contractor should not throw the malba from higher floors directly on the ground. It should be brought down through the staircase by the workers or proper chute should be installed for this purpose.

2. DUTIES & POWERS:

- i. The duties of the Site Engineer(s) are to watch and supervise the works and the workmanship employed in connection with the works, and to test and examine any materials to be used. He shall have no authority to relieve the contractor of any of his duties or obligations neither under the contract nor, except as expressly provided here under, to order any work involving delay or any extra payment by the Institute, nor to make any variation in the works.
- ii. The Engineer-in-charge, from time to time in writing, delegates to the Site Engineer(s) any of the powers and authorities vested in them. Any written instruction or written approval given by the Site Engineer(s) to the contractor within the terms of such delegation (but not otherwise) shall bind the contractor and the Institute as though it had been given by the Engineer-in-charge provided always as follows:
 - a. Failure of the Site Engineer(s) to disapprove any work or materials shall not prejudice the power of the Engineer In-charge to subsequently disapprove such work or materials and to order the pulling down, removal or breaking up thereof.
 - b. If the contractor is dissatisfied by reason of any decision of the Site Engineer(s), he shall be entitled to refer the matter to the Engineer- in-charge, who shall thereupon confirm reverse or vary such decision.

3. ASSIGNMENT & SUBLETTING:

The contractor shall not assign the contract or any part thereof or any benefit or interest therein or there under without the written consent of the Engineer In- charge. The whole of the works included in the contract shall be executed by the contractor except where otherwise provided in the contract. The contractor shall not sublet any part of the works without the written consent of the Engineer In- charge and such

consent, if given, shall not relieve the contractor from any liability or obligation under the contract, and he shall be responsible for the acts, defaults and neglects of sub-contractor, his agents, servants or workmen, as if they were the acts, defaults or neglects of the contractor provided always that the provision of labour contracts on a piece work basis shall not be deemed to be a subletting under this clause.

4. PROPOSED ACTION IN CASE OF AN ACCIDENT AT SITE:

In case of any serious accident at work site, the Institute may cause an enquiry / investigation into the accident and depending on the outcome of such enquiry / investigation, the institute may take such action against the contractor as may be deemed fit and appropriate in the discretion of the Director, IIT Ropar which may also lead to termination of the contract, and / or forfeiture of the security deposit made by the contractor, and / or the contractor may be may be debarred from applying for future works in the campus for a specified period.

5. LOCATION

The location of work is at IIT Ropar permanent campus, Rupnagar, Punjab. The contractor will be required to operate under the Climatic conditions as prevailing for the entire year.

6. RELATED DOCUMENTS

These additional specifications are to be read in conjunction with the specification given in the tender. In case any item/items or part thereof are not covered under these specifications, the same shall be carried out as per relevant part of the **CPWD General Specification for Electrical Works amended up to date-CPWD Part-I 2013**, Relevant Indian Electricity Rules and Indian Electricity Act amended up to date; Relevant BIS specifications amended up to date; NBC 2016 amended up to date and ECBC-2017 amended up to date and as per direction of Engineer-in-Charge.

These additional specifications are to be read in conjunction with above and in case of variations; specifications given in this additional condition shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with schedule of quantities for the work.

7. Terminology

The definition of terms used in these specifications shall be in accordance with relevant IS. All components shall conform to relevant Indian Standard Specifications, International Standards and shall bear the stamp of the testing laboratory wherever existing and amended to date.

8. Order of Preference:

In case of discrepancy, if any, between the description of items as given in the Schedule of quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- i. Schedule of quantities
- ii. Special Conditions
- iii. Technical specifications specified in the tender
- iv. General Conditions of Contract for CPWD Works
- v. Drawings
- vi. CPWD General Specifications
- vii. Relevant IS or any other International code in case IS code is not available.
- viii. Manufacturer's Catalogue, Specifications and Recommendations.

9. Site Information

The work shall be carried out in a location, and working time may be restricted by the client, claims for idle labour(s) will not be entitled. The Bidder should in his own interest visit the site and get themselves familiarize with the site condition..

10. Completeness of the tender, submission of programme, approval of drawings and commencement of work

I. Completeness of the tender:-

All sundry equipments, fittings, assemblies, accessories, hardware items, foundation blots, supports, termination lugs for electrical connections, cable glands, junction boxes and all other items which are useful and necessary for proper assembly and efficient working of the various equipments and components of the work shall be deemed to have been included in the tender, irrespective of the fact whether such items are specifically mentioned in the tender or not.

II. Safety Codes and Labour Regulations

In respect of all labour employed directly or indirectly, for the execution of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, and workman's compensation act. CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the bidder liable for penalty. In addition the Engineer-in-charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost incurred thereon from the contractor.

The contractor shall provide necessary barriers, signals and other safety measures wherever necessary so as to avoid accident. He shall also indemnify CPWD against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

11. General security restrictions are given as under:

- a. No inflammable materials shall generally be stored at site of work.
- b. The movement of trucks and vehicles will be regulated in accordance with rules and regulations as approved by competent authorities.
- c. The contractor shall inform in advance, the truck registration number, ownership of the trucks, names and address of the drivers and labour for necessary action by the security agency.
- d. Due to the site conditions, no space for construction of storage facilities and stay of site staff may be allowed.
- e. Names and addresses of labourers/staff along with identity proof and residence address proof etc. working at site shall be furnished in advance for security verification for issue of passes.
- f. The labourers/staff should not be changed too frequently once the verification of the character and antecedents is done.

- g. As and when there will be security requirements, certain additional restrictions can be proposed as per the requirement of the situation.
- h. **IDENTITY CARDS:-** The identity cards will be issued to the workmen employed by the contractor after proper police verification for which Contractor shall submit a list of worker's to be deployed on site of work. The cost of photos would be borne by the contractor. They will be required to carry the identity- cards with them during their working inside the building.
- i. Due to security constraints, all the working personal may not be allowed to carry the mobile phone or any other electronic gadgets. The instruction of security personal in this regard shall be followed religiously.
- j. Therefore in view of the situation explained under above paragraphs the bidder must visit the site and must get himself acquainted with the proposed site of work, study specifications and conditions carefully before tendering rates. Nothing extra shall be paid on account of compliance of any of these clauses. The hindrance due to security constraints shall be not be accounted towards adjustment of completion time mentioned in the tender document.

12. Works to be arranged by the department

Unless otherwise specified in the tender documents: Space for accommodating all the equipment and components involved in the works, shall be arranged by the Department. However, arrangement to make it lockable and its watch & ward shall be made by the contractor himself.

13. Works to be done by the contractor

Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost- whether specifically indicated in the schedule of work or not: -

- a. Suspenders, brackets and supports for suspending lights and cables etc.
- b. Sealing of all floor slab/wall openings provided by the Department or made by the contractor for laying pipes & cables from fire safety points of view.
- c. Painting of all exposed metal surfaces of equipments and components with appropriate colour as per relevant part of bid document.
- d. Making opening in the wall/floors/slabs or modifications in the existing openings wherever provided for cable/cable tray etc. Opening in the slab/retaining walls/brick wall etc. shall be made by means of core cutting machines only.

- e. All electrical works including cable/wires, earthing etc. beyond power supply made available by the department.
- f. Making good all damages caused to the structure during installation and restoring the same to their original finish.
- g. Approval from Local Body as may be required as per local by-laws. (The contractor's responsibility shall be limited to the work executed by him.)
- h. The water and power supply for installation, testing and commissioning of the complete installation shall be made available by the contractor themselves.

14. Rates

The rate quoted by bidder, shall be firm and inclusive of all taxes including GST, duties and levies and all charges for packing, forwarding insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities / obligation etc. No separate reimbursement shall be made on this account. However, statutory deductions shall be made from the bills, as per rule. The rates quoted by the bidder shall also be inclusive of all this, nothing extra shall be paid on this account.

Quoted Rates should be inclusive of all taxes & levies including EPF/ ESIC. Nothing extra shall be payable. It will be the responsibilities of the contractor to provide EPF / ESIC and other facilities to their employees as per current labour laws.

15. Taxes and duties

The tender is for entering into a percentage rate works contract. The rates quoted shall be inclusive of all manpower, design, materials, prevailing taxes, duties, levies, Cess, freight and delivery, labour for installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities / obligation etc. No separate reimbursement shall be made on this account. Statutory deduction on account of GST, Income Tax, Labour Welfare Cess etc, as applicable on Original work, (Except credit items) shall be made at source from each running /final bill payment. A certificate of TDS shall be issued by the department to the contractor.

16. Execution

a. Machinery for Erection

All tools and tackles required for unloading/handling of equipments and materials at site, their assembly, erection, testing and commissioning shall be the responsibility of the contractor.

b. Dispatch of Materials to Site and their Safe Custody

The contractor shall dispatch material to site in consultation with the Engineer-in-Charge. Suitable accommodation shall be made available free of charge temporarily. The arrangement to make it lockable/secure by means of partitions, locks etc. shall be responsibility of the contractor. Watch and ward however, shall be the responsibility of contractor. Program of dispatch of material shall be framed keeping in view the building progress. Safe custody of all machinery and equipment supplied by the contractor shall be the responsibility of the contractor till final taking over by the department.

c. Extent of Work

The work shall comprise of entire labour including supervision and all material necessary to meet a complete installation and such tests and adjustment and commissioning, as may be required by the department. The term complete installation shall not only mean major items covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in detail in the tender documents in connection with this contract as this is a turnkey job.

d. Compliance with Regulations and Indian Standards:

All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:

- a. Factories Act.
- b. Indian Electricity Rules.
- c. B.I.S. & other standards as applicable.
- d. Workmen's compensation Act.
- e. Statutory norms prescribed by local bodies like CEA, PSPCL, and Local Bodies etc.
- f. Nothing in this specification shall be construed to relieve the successful bidder of his responsibility for the design, manufacture and installation of the equipment with all

accessories in accordance with currently applicable statutory regulations and safety codes.

- g. Successful bidder shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the bidder. Failure to provide such safety requirement would make the bidder liable for penalty of Rs. 500/- for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of bidder and recover the cost thereof from him.

h. Indemnity

The successful bidder shall at all times indemnify the department, consequent on this works contract. The successful bidder shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful bidder on account of the above.

i. Co-ordination with other Agencies

The contractor shall co-ordinate with all other agencies involved at the site of work so that the work of other agencies is not hampered due to delay in his work. The work, which directly affects the progress of work of other agencies, shall be given priority.

j. Quality of Materials and Workmanship

- i. The components of the installation shall be such design so as to satisfactorily function under all conditions of operation.
- ii. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- iii. All equipments and material to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after sales service.
- iv. All equipments and materials to be used in the work shall be brand new having its date of manufacturing not more than 6 months old from the date of delivery at

site with manufacturer's certificates, warrantee cards, technical catalogues, instructions, manuals and wiring diagrams etc.

17. Inspection of materials and equipments:

- a. Materials and equipments to be used in the work shall be inspected by the departmental officers. Such inspection will be of following categories:
 - i. Inspection of materials / equipments to be witnessed at the Manufacturer's premises in accordance with relevant BIS / Agreement Inspection Procedure.
 - ii. To receive materials at site with Manufacturer's Test Certificate(s)
 - iii. To inspect materials at the authorized dealer's warehouse to ensure delivery of genuine materials at site.
 - iv. To receive materials after physical inspection at site.
 - v. Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by firm. The firm shall ensure that:
- b. Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
 - i. As and when the order is placed for the fittings / fixtures, cables, switchgears, poles, rising main, other main items etc, its copy shall be endorsed to the Engineer-in-charge.
 - ii. The firm will be required to procure material like light fittings, exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears etc directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor if required by the department.
 - iii. Inspection at factory or at warehouse of the manufacturer, as required, shall be arranged by the firm for a mutually agreed date. Certificate for genuineness of the fittings shall have to be provided duly signed by the manufacturer's officer not below the rank of Regional Manager.
 - iv. Delivery of material shall be taken up only with the consent of department, after clearance of the material.
 - v. Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.
 - vi. Similarly, for fabricated equipments, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in

the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

- vii. The contractor shall give a trial run of the equipments and machinery for establishing its capability to achieve the specifications within laid down tolerances to the satisfaction of the Engineer-in-charge before commencement of work.

18. Final inspection and testing

- i. Final Inspection and testing will be done by the Engineer-in-Charge or his representative as per details indicated in relevant section of Technical Specifications.
- ii. The installation will be offered for inspection by local bodies, if required. The contractor or his representative shall attend such inspection of the Local Fire authority, Local Body etc, if any and extend all test facilities as are considered necessary, rectify and comply with all observations of the Local Fire authority, Local Body etc, if any, which are part of the agreement and arrange for obtaining necessary clearance certificate in favor of department. In case contractor fails to attend the inspection and make desired facilities available during inspection, the department reserves the right to provide the same at the risk and cost of the contractor and impose penalty for the same. The installation will be accepted by the department only after receiving clearance from Local Fire authority, Local Body etc, for the work executed by the contractor under the agreement.

19. Guarantee

The contractor shall guarantee the complete system to maintain the specified conditions under all conditions of ambient temperature.

- a. The contractor shall guarantee the complete system to maintain the specified conditions under all conditions of ambient temperature.
- b. All equipments shall be guaranteed for a period of at-least 60 months or as per Manufacturer's standard whichever is more, from the date of acceptance and taking over of the installation by the department against unsatisfactory performance and/ or breakdown due to defective design, material, manufacture, workmanship or installation. The equipment or component or any part thereof so found defective during the guarantee period shall be repaired or replaced free of cost to the satisfaction of the Engineer-in-Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the

same will be got done by the department at the risk and cost of the contractor. The decision of Engineer-in-Charge in this regard shall be final.

- c. LED items shall have warranty of 5 years by the OEM from the date of installation.

20. Terms of payments:

Following payment terms shall be applicable.

- a. No advance payment shall be made and payment against bills shall be admissible.

21. Special condition for safety at the work site

The contractor will identify one of the supervisors for taking care of implementation of Safety systems. The Contractor should follow the following General Guidelines governing the safety rules as laid down under:

- a. Smoking is strictly prohibited at the workplace.
- b. Nobody is allowed to work without wearing a safety helmet. Chinstrap of the safety helmet shall be always on. Drivers, helpers and operators are no exception.
- c. No one is allowed to work at or more than three meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level.
- d. No one is allowed to work without adequate foot protection. Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs as and when site safety co-coordinator insists eye protection has to be provided.
- e. All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job.
- f. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach is to be ensured into every excavation.
- g. Adequate illumination at the workplace shall be ensured before starting the job at night.
- h. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
- i. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.

- j. Material shall not be thrown from elevated positions. If required, the area shall be barricaded and one person shall be posted outside the barricading for preventing the trespassers from entering the area.
- k. Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.
- l. All temporary electrical connections shall be made using 3 or 5 core cables, having an earth wire.
- m. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
- n. A tools and tackles inspection register must be maintained and updated regularly.
- o. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work every day.
- p. All the unsafe conditions, unsafe acts identified by contractors, reported by site supervisors and / or safety personnel to be corrected on priority basis.
- q. No children shall be allowed to enter the workplace.
- r. All the lifting tools and tackles shall be stored properly when not in use.
- s. Return cables shall be used for earthing. Lamps shall be used on Return cables to ensure proper earthing for welding works.
- t. All the pressure gauges used in gas cutting apparatus shall be in good working condition.
- u. Connectors and hose clamps are used for making welding hose connections.
- v. Proper junction boxes must be used for tapping of power for temporary use.

22. Quality assurance plans:

a. internal & external electrical work:

- i. For Internal and External electrical works, the bidder should have valid electrical contractor license from competent authority in the name of the contractor.
- ii. Electrical agencies shall submit the fortnightly labour report.
- iii. Sample of materials like pipe, conduits wires, of each size etc. may be got tested in the laboratory approved by Engineer -in charge, as and when desired by Engineer-in-charge. All the materials intended to be used in the work shall be got approved by Engineer-In-Charge before use at site.
- iv. Fish wire shall be provided in each conduit where wiring is not carried out.

- v.** Extra item, substitute item, deviation etc. shall be carried out only with written permission of competent authority.
- vi.** Necessary documents of handing / taking over of the installation will be duly signed by the parties namely EE (E) and the main contractors.
- vii.** The contractor will have to ensure that the skilled / Semi skilled labour, engaged in the execution of the work must possess valid electrical license / qualifications else will not be permitted to execute the work.
- viii.** The contractor shall be responsible for removal of all defects in the work during the defect liability/guarantee/warranty period. The department shall carry out routine maintenance only. However, if any failure is noticed during this period which is attributable to poor quality of material and bad workmanship, the contractor will be required to rectify the same at his own cost, failure of which the department will be at liberty to get the defects rectified at the risk & cost of the contractor. The contractor will also be required to carry out his own inspection/testing during the guarantee/warranty period and attend to any defect taking place during this period.
- ix.** Material required for the work shall be brought at site at the appropriate time keeping in view the requirement of material depending on progress of the work.
- x.** The work shall be carried out as per direction of Engineer -in-charge and CPWD specifications for Electrical Works.
- xi.** Taxes, levies etc. as applicable shall be deducted from the contractor's bill. No Road Permit or other forms shall be issued by the Department. The rates quoted shall be inclusive of all taxes, duties, levies, T & P and petty items like including log book, complaint register duster, Mobil oil, test lamp etc. and no advance payment will be made.
- xii.** The materials supplied shall be new (Manufactured not earlier than 6 months before the date of quotation opening) and ISI marked wherever applicable. Test certificate / reports and warranty certificates as required shall be provided by the agency to the entire satisfaction of Engineer-in-Charge before bill submission for payment.
- xiii.** The labour deployed site for execution of work shall take all safety precautions and the contractor shall be responsible for compliance of all labour

regulations, liabilities and safety measures. If the Institute is not satisfied with the performance of labour, then alternate staff is to be provided immediately.

xiv. All required documents shall be provided for verification of the staff deployed at site for execution of work.

xv. The contractor shall be required to possess during the full currency of the contract a valid license for employing contract labour from the appropriate licensing authority under the contract labour (Regulation and abolition) act 1970. The contractor shall be solely responsible for compliance of various statutory obligation (including the financial liabilities) under contractor labour regulation & abolition Act. Minimum wages act etc. and other applicable laws and rules framed their under from time to time. Contract workers are to be paid not less than fair wages which means wages fixed by CLC, Govt. of India under the provisions of the Minimum Wages Act. Wages due to the worker shall be paid to him directly by the contractor through Bank or ECS or Online transfer to his bank account and receipt of wages shall be attested by the worker concerned.

xvi. The contractor shall depute 01 (ONE) nos. Supervisor - (Engineer/Technician having minimum 2-year experience in lighting pole erection) who shall remain present at site throughout the period of execution of work, failing which recovery shall be made from the contractor in the event of not fulfilling provision at the rate of Rs. 10,000/- Per Month / per person.

xvii. The contractor will have to arrange his own T & P required for the work. The department will not arrange any T & P and nothing shall be paid on this account. The Site service personnel should possess the following:

1. Line Tester, Test Lamp
2. Spanner Kit.
3. Crimping Tools
4. Multi Meter & Tong Tester
5. Lux Meter (Digital)

xviii. No residential accommodation shall be provided to any of the staff engaged by the contractor. The contractor shall also not be allowed to erect any temporary set up for staff in the campus.

xix. The Site Engineers and all deputed staff shall carry mobile telephones(s) (unless otherwise specifically instructed by the institute for safety reasons) to

enable the Engineer-in-charge or his representative to have easy and quick communication. Nothing extra shall be paid on account and his quoted rates for various items under this contract will be inclusive of this obligation. Contractor is bound to give all the telephone no. of their staff deployed at site to the Engineer in charge, immediately after award of work.

- xx.** Safety codes and Labour Regulations:- In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instruction issued from time to time. Failure to provide such safety requirement would make the bidder liable for penalty as per Part-A for each default. In addition the Engineer-in-charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor. Safety of the staff employed will be the responsibility of the contractor. CPWD will not be responsible for any mishap, injury / accident or death of the staff. No claim in this regard shall be entertained / accepted by the department.
- xxi.** Contractor shall be fully responsible for any damages caused to govt. property or allottee's property by his or his labour during the carrying out the work. All such damages shall be rectified by the contractor at his own cost, failing which the same will be got rectified by Engineer-in-charge and the expenditure incurred shall be recovered from the contractor bill. The watch and ward of installation shall be the responsibility of the contractor.
- xxii.** Contractors are requested to inspect the site before quoting their rates for the tender; later on no further claims in this regard shall be entertained.
- xxiii.** The staff engaged has to be courteous and maintain good behavior at site. Any person find discourteous or misbehavior shall have to be replaced within 48 hours, failing which, the Engineer- in-Charge has the power to cancel the contract, and the contractor shall have no claim of compensation. Decision of the Engineer-in-Charge shall be final and binding on the contractor. The contractor shall submit the name, address & character certificate of the worker/ staff employed by them at the site of work to the Engineer-in-Charge before start of the work.

- xxiv. The staff of the contractor shall maintain the complaint register, logbooks, job diary, maintenance records and registers, which will be supplied by the contractor. The staff should wear clean uniforms and badges (Name plate) to be supplied by the contractor.
- xxv. Officers of the department may conduct inspection before dispatch of equipments/ materials at manufacturer's works. The contractor has to arrange facilities for inspection of equipments/ materials including conducting the required tests in the manufacturing unit.

23. List of approved makes

The materials of first quality from the list provided in **Annexure B**, having minimum local content as per DPIIT PPP-MII ORDER are to be used. In case it is established that the brands specified below are not available in the market contractor shall submit alternative proposal for the approval of the Engineer-in-Charge. When two or more alternative brands have been mentioned, the brand to be finally used shall be as decided by the Engineer-in-Charge and as per sample approved before procurement & Installation. The contractor shall submit samples of all materials within 7 Days before procurement for approval and shall procure directly from the manufacturer or their authorized distributor / dealers only.

24. SCOPE OF WORK:

The scope of work will include supply, installation, testing, commissioning and performance testing of LED sports lighting system of the cricket pitch at the sports complex in IIT Ropar permanent campus in accordance with requirements documented in BOQ and technical specifications attached herewith in the corresponding section of the tender documents.

The scope basically covers the following activities, though not limited to and all associated works, services as may be required to complete the installation in all respects within the specifications.

- i. The contractor / OEM shall have to offer a direct 5 year free replacement on-site warranty towards the installed sports lighting system.
- ii. The lighting head frame shall have provisions to increase the light levels to Class – II ($E_h \geq 500$ Lux) at a later period by increasing only the number of LED lights.
- iii. The final achieved light levels and readings etc. shall be carried out by the OEM authorized engineer and certificate to that effect shall be issued.

- iv. LED sports floodlight luminaries shall be of outdoor remote driver type complete with accessories.
- v. Outdoor aluminium enclosure boxes housing remote drivers and supporting electrical equipments comprising drivers, surge protection, fuses etc or each luminaries and safety disconnect switch for each circuit.
- vi. Wire harness complete with plug in connectors provided inside the pole for electrical connections from the driver unit up to each flood light.
- vii. The work includes design, SITC of head frame of suitable size to accommodate a minimum of 6 Flood light fittings.
- viii. Performance testing of the installation to establish lighting levels guaranteed by the bidder during commissioning.

25. DESIGN PARAMETERS:

The illumination levels and associated parameters shall meet the following requirements of Class-III (≥ 300 Lux) . The system shall have provisions to increase the light levels to Class-II (≥ 500 Lux) at a later date by increasing only the number of LED Lights.

i. Design Criteria:

| | |
|-----------------------------|--|
| Horizontal Illuminance | : $E_h \geq 300$ |
| Horizontal uniformity ratio | : $E_{Min}/E_{Av} (U2) \geq 0.7$ |
| Horizontal uniformity ratio | : $E_{Min}/E_{max} (U1) \geq 0.4$ |
| Glare Rating | : $GR < 55$ |
| Maintenance Factor | : 0.85 |
| Colour Rendering | : $Ra > 65$ |
| Colour Temperature | : $> 4000K$ |
| Height of the High mast | : not exceeding 30 Meter |
| Type of floodlight | : 1000W LED Sports Floodlight Fixtures |

All illumination values shown above are constant light levels to be maintained over a period of 10 years. A maintenance factor of 0.85 should be used to guarantee the maintained illumination levels.

ii. Detailed technical specifications of led lighting system

This section provides technical specifications of various constituents of the LED lighting system. The products and equipments offered by the bidder must conform to these specific requirements in addition to the stipulations of applicable standards / norms.

1. Floodlight LED Luminaire

- a. The LED floodlight luminaires shall be of special design for sports lighting application.
- b. The floodlights must have IES TM-21-11 testing for projected lumen maintenance or NABL certified LED fixtures along with LM 79 & LM 80 certification. The floodlight shall be of heavy and robust construction considering the required heat sinks etc.
- c. The floodlight shall consist of die-cast aluminium housing providing a rugged base and facilitating sophisticated photometric unit to prevent direct glare from the LED light source.
- d. The floodlight shall be a state-of-the-art design allowing easy mounting.
- e. The unit shall have a degree of protection of IP-66 allowing protection against ingress of dust, solid objects and water/moisture.
- f. The photometric pattern shall provide optimal energy efficiency and minimal spill light and its visor should allow energy efficient light on the field preventing glare.
- g. The front glass shall be made of 3mm thick safety tempered glass lens for resistance to thermal and mechanical shock.
- h. To prevent the mounting cross-arms from sagging resulting in potential floodlight misalignment and to allow easy maintenance the driver and other electrical accessories shall be mounted in a remote outdoor type electrical enclosure box at the base of the mast.
- i. Each floodlight luminaire shall be attached to the cross arm by a minimum of two (2) bolts, which shall be of stainless steel and there shall not be any penetration of the top or sides of the cross arms for mounting the floodlights.
- j. To assure quality of lighting on the field is maintained, light fixtures shall have a positive repositioning device for each luminaire on the assembly. The device shall provide for automatic repositioning of the aiming after relamping. In addition, there shall be a stainless steel bolts and nuts to secure the alignment.
- k. The floodlight shall have Class-H electrical insulation for complete safety.

1. The floodlight should have improved material and gasket system to virtually eliminate out gassing and contamination of the reflector and lens.
- m. Type Test Report from a NABL accredited LAB should be submitted.
2. Light Source
 - a. The light source for floodlight luminaries shall be LED arranged in a suitable array.
 - b. The LED shall be of minimum 4000K color temperature and minimum 70Ra CRI
 - c. The LED shall have instant ON-OFF capabilities.
 - d. The LED which fails during the warranty period should be replaced and installed at site within 7 days at no extra cost.
3. LED Driver and Electrical Enclosure
 - a. The driver shall functionally match with the LED floodlight by the bidder and must have been successfully been used for similar sports lighting projects. The driver should conform to UL testing for 50 deg. C ambient temperature operations.
 - b. The driver, surge suppresser, fuse and circuit disconnectors shall be mounted in an outdoor type enclosure made of aluminum sheet, duly power coated with high performance polyester, having a degree of protection minimum IP- 66,
 - c. For easy identification and reduced maintenance time, each driver, wire, cable, fuse, etc. shall be labeled to identify the floodlight luminaries it controls.
 - d. The driver gear electrical enclosure shall be mounted on each pole with suitable mounting arrangement to prevent ingress of water.
4. Internal Wiring
 - a. To protect from deterioration resulting from exposure to the harsh atmospheric conditions, all wiring for LED floodlights shall be contained inside the cross arms or poles and no external wiring even if provided with flexible conduits is acceptable.
 - b. To protect wire harness from expensive and time-consuming repairs caused by strain on the connection, the wire harness shall be supported at the top of the pole and in the middle by a stainless steel wire mesh grip matched to the size of the harness.
 - c. To eliminate the wire harness from being accidentally removed, the wire mesh grip shall be mechanically attached to the pole to an enclosed snap hook.

- d. The internal wiring shall be of stranded copper conductor having minimum cross section of 2.5 sqmm, colour coded for easy identification and shall include abrasion protection sleeve, strain relief and plug in connections.

5. General Requirements

- a. All components shall be designed and manufactured as a system. All luminaries, wire harnesses, drivers and other enclosures shall be factory assembled, aimed, wired and tested.
- b. All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All exposed steel shall be hot dip galvanized. All exposed hardware and fasteners shall be stainless steel of at least 18-8 grade, passivity and polymer coated to prevent possible galvanic corrosion to adjoining metals. All exterior reflective inserts shall be anodized, coated with a clear, high gloss, durable fluorocarbon, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All wiring shall be enclosed within the cross arms, pole, or electrical components enclosure.
- c. During material handling, transportation, erection, etc. the at most care shall be taken so that no damage or scratch or mark occurs on any parts. If occurred, necessary action shall be taken by contractor.
- d. Cable and wire selection should be done so that maximum 60% of loading is achieved. Calculation sheet showing the same shall be provided to institute authorities for approval during design stage. Selection of power cables shall be sized to restrict the voltage drop to 3%. The supply and installation of Gland and Lugs needed for termination will be in scope of Contractor. Cable size shall be decided by keeping maximum 60% load. All the cables shall have gland and lugs.
- e. The system of wiring shall consist of PVC insulated copper stranded conductor flexible FRLS wires in metallic conduits in exposed and FRLS PVC conduit shall be used in concealed. Wires originating from two different phases shall not run in the same conduit. All wires shall have ferrules for identification.
- f. Minimum wiring size of FRLS copper conductor shall be 2.5 sq mm for light fitting and 4 sq mm for power.

- g. Electricity and water required for work will be provided by institute at one point on chargeable basis (as per institute norms) or contractor can arrange the same on his own risk and cost.
6. Defect Liability Period:
- a. The equipment should be covered comprehensive on-site warranty against any manufacturing defect for a period of 5 Years from the date of successful installation and acceptance. In case any part or whole of the equipment is found to be defective during the DLP period, then the same will have to be replaced/repaired free of cost at our premises. Warranty certificate should be submitted with the bill(s).
7. Insurance:
- a. Necessary insurance cover will be in the scope of Contractor. The date of delivery should be strictly adhered to failing which the work order is liable to be cancelled.
 - b. Penalty may be imposed as per terms & conditions. Goods should be securely, safely and adequately packed & dispatched and delivered at the risk of supplier. In case of damage consignment the same should be replaced without any cost to the Buyer and the supplier can collect the damaged consignment after satisfactory replacement.
8. Inspection:
- Before dispatch the materials, the Vendor will give sufficient advance notice of the date in writing on which the goods will be ready for inspection. If due to any reasons, it is not possible on the part of the purchaser to visit the plant/ site of the Vendor for inspection of the items, the Vendor shall share the detailed schematic diagram, pictures of item and the details as required by the IITP.
9. Test Certificates:
- Manufacturing test certificates & Type test certificates should be submitted with material.

PART – C

Annexure A

| <u>S.No</u> | <u>Description</u> | <u>Unit</u> | <u>Quantity</u> | <u>Rate</u> | <u>Amount</u> |
|-------------|---|-------------|-----------------|-------------|---------------|
| 1 | STTC of 1kw LED flood light with epoxy powder coated finish, single piece pressure die cast aluminium housing with heat resistance toughened clear glass with constant current driver, over voltage protection and input voltage 140-270 AC with a minimum system lumen output 47000 lumen and a system efficiency of 120 lumen/watt all complete with 10 meters of copper cable of suitable capacity at all heights to the satisfaction of Engineer-in-Charge. | Nos | 12 | | |
| 2 | Supplying and fixing DP sheet of 16 gauge powder coated steel enclosure on surface/recess along with 25A, 240 V "C" curve DP MCB complete with connections, testing and commissioning etc as required. | Nos | 6 | | |
| 3. | Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc to be fixed on pole at all heights complete to the satisfaction of Engineer-in-Charge. | | | | |
| a | Hot finished welded type tubes | kg | 60 | | |
| 4 | Painting with synthetic enamel paint of approved brand and manufacture to given an even shade | | | | |
| a | Two or more coats on new work | sqm | 20 | | |
| 5. | Total (inclusive GST) | | | | |

ANNEXURE B

LIST OF ACCEPTABLE MAKES OF ELECTRICAL ITEMS

| | | |
|---|---|---|
| 1 | Rigid PVC Conduit & Accessories for conduit | Precision/Polycab/AKG/Finolex Pipes |
| 2 | FRLS PVC insulated, copper conductor single core cable, wires (Standards) | L&T /Havells /Polycab /Finolex / RR Kabel / KEI |
| 4 | GI Pipe (ISI Marked) | Tata / Jindal- Hisar/ Nezone / SAIL. / Zenith |
| 5 | MCB/MCB DB, prewired MCB DB and industrial socket and Isolators / RCCB | Legrand /Siemens /L&T /ABB/Schneider /Hager/C & S |
| 7 | Cable End Looping Box / SMC Junction Box | Hensel/ Sintex / MK |
| 8 | LED Luminaries | Phillips / Bajaj / Wipro / CG |
| 9 | Power Cable | Finolex / Polycab / Havells / KEI |

Executive Engineer