

**BIHAR CRICKET ASSOCIATION**  
**OFFICE OF THE CHIEF EXECUTIVE OFFICER**  
**45-C, NEAR SAHYOG HOSPITAL, PATLIPUTRA COLONY, PATNA-800013**

No. BCA/STADIUM/02/2025

Date 06-08-2025

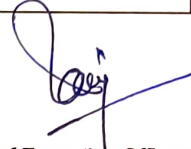
**Corrigendum I**

Name of Work: Redevelopment of Moin-UI-Haq Cricket Stadium at Patna, Bihar and their maintenance during Defect Liability Period on Engineering, Procurement and Construction (EPC) basis.

Sl no.	Reference Clause	As published in the RFP	To be read as
1	Vol. -I Page-2	Last date & time of submission through email at in pdf format only. - Upto 11.08.2025 by 15:00 hrs (IST)	Last date & time of submission through email at <a href="mailto:bca@biharcriccketassociation.com">bca@biharcriccketassociation.com</a>
	Vol. -II Page-2	Last date & time of submission of Tender Upto 17.08.2025 by 15:00 hrs (IST)	and cc to <a href="mailto:gmadmin@biharcriccketassociation.com">gmadmin@biharcriccketassociation.com</a> (in pdf format only) - Upto 20.08.2025 by 15:00 hrs (IST)
2	Vol. -I Page-2	Period during which hard copy in original of EMD, Cost of Tender Document, tender processing fee, Letter of Acceptance of tender Conditions unconditional, enlistment order of the contractor, Financial Bid (offline) and other documents as per NIT shall be submitted.- Before and up to 14:00 hrs. on 14.08.2025 at BCA office, 45-C, Near Sahyog Hospital, Patliputra Colony, Patna-800013 (Tel: 0612-2210101/02,Fax-2210103,Web:- <a href="https://biharcriccketassociation.com/">https://biharcriccketassociation.com/</a> Neeraj Singh, Sr. G.M., Admin +91-7766003399	Period during which hard copy in original of EMD, Cost of Tender Document, tender processing fee, Letter of Acceptance of tender Conditions unconditional, enlistment order of the contractor, Financial Bid (offline) and other documents as per NIT shall be submitted.- Before and up to 14:00 hrs. on 24.08.2025 at BCA office, 45-C, Near Sahyog Hospital, Patliputra Colony, Patna-800013 (Tel: 0612-210101/02,Fax-2210103,Web:- <a href="https://biharcriccketassociation.com/">https://biharcriccketassociation.com/</a> Neeraj Singh, Sr. G.M., Admin +91-7766003399
	Vol. -II Page-2	Period during which hard copy in original of EMD, Cost of Tender Document, tender processing fee, Letter of Acceptance of tender conditions unconditional, enlistment order of the contractor and other document as per NIT shall be submitted. Before and up to 15:00 hrs. on 19.08.2025 at BCA, BCA office, 45-C, Near Sahyog Hospital, Patliputra Colony, Patna-800013 (Tel: 0612-2210101/02,Fax-2210103,Web:- <a href="http://BCA.in">http://BCA.in</a> , E-mail: <a href="mailto:mdBCA@gmail.com">mdBCA@gmail.com</a> )	

3	Vol. -I Page-2	Date & Time of Opening of Technical Tender 14.08.2025 at 16:30 hrs.	Date & Time of Opening of Technical Tender: 24.08.2025 at 16:30 hrs.
	Vol. -II Page-2	Date & Time of Opening of Technical Tender 14.08.2025 at 16:30 hrs	
4	Vol. -II Page 99 Clause 69	<b>MATERIALS OBTAINED FROM DISMANTLEMENT TO BE OWNER'S PROPERTY</b> All materials like stone, boulders and other materials obtained during the work of dismantling, excavation etc. will be considered BCA/owner property and such materials shall be disposed-off to the best advantage of BCA/owner according to the instructions in writing issued by the Engineer-in-charge.	<b>DISPOSAL OF MATERIALS OBTAINED FROM DISMANTLEMENT</b> Existing Structure of Stadium has to be demolished /dismantled and debris/scrap generated has to be disposed by bidder at suitable location identified by the bidder at no extra cost. This task will run parallel to the submission & approval of Design and Drawing phase.
5	Vol. -II Page 71 Clause 8	<b>COMPENSATION FOR DELAY</b> i) Compensation for delay of work @ 0.75% per week	<b>COMPENSATION FOR DELAY</b> i) Compensation for delay of work @ 0.75% per month *As per clause 8
6	Vol. -I Page 13 Section-II	<b>"Contract Agreement"</b> shall mean the Tripartite agreement to be signed between the Successful Tenderer and the competent authority for and on behalf of Employer or their authorized representative & the competent authority for and on behalf of the Client Department.	<b>"Contract Agreement"</b> shall mean the agreement signed between the Successful Tenderer and the competent authority for and on behalf of the Bihar Cricket Association.
7	Vol. -I Page 39 Clause 3.6	<b>Green Building Rating approvals as per GRIHA</b> The scope of work shall also include the cost of all such activities. BCA, BIHAR aims at getting GRIHA rating of 3 Star for the buildings in the Complex. The contractor shall register and obtain the required GRIHA certification from the designated authority and shall be required to provide all relevant documents, other inputs and take the appropriate measures etc. during execution of work and thereafter obtain required GRIHA 3 Star rating, to enable executing agency in achieving this objective.	<b>Green Building Rating approvals as per IGBC &amp; GRIHA</b> The New Moin-ul-Haq International Cricket Stadium has to be compliant to the requirements of green building 5-Star/Platinum rating norms together with all ancillary structures. site works shall be considered contractually complete, eligible for any completion certificate, and fit for hand over to the Bihar Cricket Association only after obtaining formal certification of GRIHA 5-Star certification/ IGBC Green New Buildings Platinum certification.
8	Vol. - II Page-12 Memorandum Sl. No. 8)	Interest Rate of Mobilization Advance Simple Interest Rate of 10.00% (Ten Percent only) Per Annum	Interest Rate of Mobilization Advance Simple Interest Rate of 8.00% (Eight Percent only) Per Annum
9	Vol. - II Page-160 Section -6 Milestone Sl. No. (i)	Submission and approval of structural design, drawings & MEP conceptual design, drawings and shifting of various services.	Demolition & Dismantling of Existing Building, Services, and removal of Debris etc., Submission and approval of structural design, drawings & MEP conceptual design, drawings and shifting of various services.
10	Clause of Arbitration		Attached
11	Schedule – F		Attached
12	Geotechnical Investigation Report		Attached
13	Electrical Load Calculation		Attached
14	G.O. 178/2023/I- 411303/901/23- 5-2023- 27(5)/2022		Attached

	dated 20.10.2023		
15	Stadium SLD		Attached
16	External Electrical Site Plan		Attached
17	External Façade Lighting Drawing		Attached



Chief Executive Officer,  
Bihar Cricket Association,  
Patna, Bihar

Date 06-08-2025

Copy to

1. The Honorary Secretary Bihar Cricket Association.
2. IT Cell for uploading in the tender portal.



**(E-signed)**

Chief Executive Officer,  
Bihar Cricket Association,  
Patna, Bihar

Settlement of  
Disputes by  
Conciliation and  
Arbitration

**Clause 85:**

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions hereinbefore mentioned and as to the quality of workmanship or materials used in the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter

- 85.1 Conciliation: If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawing, record or decision given in writing by the Engineer-in-Charge; or if the Engineer-in-Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work to be unacceptable and disputed; such party may promptly refer such disputes and amount claimed for each dispute to the Conciliator (Special Director General or the Additional Director General concerned with the work, as applicable) in the proforma prescribed in Appendix-I attached, under intimation to the other party.

The Conciliator may then request each party to submit to him a brief written statement describing the disputes and the points at issue. Each party shall send a copy of such statement to the other party. At any stage of the conciliation proceedings, the Conciliator may request a party to submit to him such additional information as he deems appropriate. When it appears to the Conciliator that there exist elements of a settlement which may be acceptable to the parties, he shall formulate the terms of a possible settlement and submit them to the parties for their observations. After receiving the observations of the parties, he may re-formulate the terms of a possible settlement in the light of such observations. If the parties reach agreement on a settlement of the disputes, they may draw up and sign a written settlement agreement on non-judicial stamp paper as per Stamp Act. The Conciliator shall authenticate the settlement agreement and furnish a copy thereof to each party. The termination of conciliation proceedings shall be in accordance with Section 76 of The Arbitration and Conciliation Act, 1996. No party shall be represented before the said Conciliator by an advocate or legal counsel. The conciliation proceedings shall be completed within 45 days from the receipt of reference. This time may be enlarged by 15 days by the Conciliator. The conciliation proceedings shall be deemed to have been terminated at the end of 60 days from the receipt of reference



**85.2 Arbitration:** If the aforesaid conciliation proceedings fail or the Conciliator fails to give proposal for settlement within the aforesaid period, either party may promptly give notice in the proforma prescribed in Appendix II, under intimation to the other party, to the Chief Executive officer or a b o v e with the work (as applicable), hereinafter referred to as the Arbitrator Appointing Authority as BCA, for appointment of Arbitrator.

However, a party may seek appointment of Arbitrator without taking recourse to the process of conciliation mentioned in sub-clause 85.1 above.

In the event of either party giving a notice to the Arbitrator Appointing Authority for appointment of Arbitrator, the said Authority shall appoint Arbitrator as per the procedure given below and refer such disputes to arbitration.

- (a) Number of Arbitrators: If the contract amount is less than Rs.100 crore, the disputes may be referred for adjudication by a sole Arbitrator. If the contract amount is Rs.100 crore or more, the disputes may be referred to an Arbitral Tribunal of three Arbitrators.
- (b) Qualification of Arbitrators: It is a term of this contract that each member of the Arbitral Tribunal shall be Graduate Engineer with experience in execution of public works engineering contracts, and he should have worked earlier at a level not lower than the Chief Engineer (equivalent to level of Joint Secretary to the Government of India).

The aforesaid educational qualification and work experience shall be mandatory for appointment as Arbitrator.

The age of Arbitrator at the time of appointment shall not exceed 75 years. An Arbitrator may be appointed notwithstanding the total number of active arbitration cases with him.

- (c) Parties to select Arbitrator: Based on the criteria specified above, a list of empaneled Arbitrators has been prepared in Bihar Cricket Association, and the parties shall have option to select an Arbitrator from the list sent to them.

**85.3 Appointment of Sole Arbitrator:** The parties may opt for appointment of the Arbitrator of the Government of Uttar Pradesh. In such cases, the party seeking arbitration has to submit an express agreement in writing as per Appendix III towards waiver of Section 12(5) of the Arbitration and Conciliation Act, 1996 along with the notice for appointment of Arbitrator in the proforma, under intimation to the other party. The Arbitrator Appointing Authority shall, within 30 days of receipt of the said notice, appoint Arbitrator of the Government of Uttar Pradesh as Arbitrator in the matter, provided the other party also submits waiver of Section 12(5), ibid in Appendix-III within 7 days of the receipt of the said notice.

Where any one of the parties does not opt for the Arbitrator of the Government of Uttar Pradesh, or does not submit the waiver agreement, the Arbitrator Appointing Authority shall propose five Arbitrators from the list of Bihar Cricket Association Empaneled Arbitrators to the party seeking arbitration under intimation to the other party within 15 days of receiving the notice. The party seeking arbitration shall give his choice for one of them within 15 days of receiving the list, and the Arbitrator Appointing Authority shall appoint the chosen person as the Sole Arbitrator within 15 days of the receipt of choice. It is a term of this arbitration agreement that if the parties fail to select, within the period prescribed above, an Arbitrator of their choice from the list of Bihar Cricket Association Empaneled Arbitrators forwarded to them, the Arbitrator Appointing Authority shall himself select and appoint Arbitrator from the said list.

**85.4 Appointment of Arbitral Tribunal of three Arbitrators:** The Arbitrator Appointing Authority shall prepare two separate lists of five Arbitrators each from the list of Bihar Cricket Association Empaneled Arbitrators, and send one to the party seeking arbitration and other to the responding party, within 15 days of the receipt of notice. The parties will then choose any one Arbitrator from the list provided to them within 15 days of receipt of the list. The Arbitrator Appointing Authority shall then appoint those chosen by the respective parties as Arbitrators and also a third Arbitrator from the list of Bihar Cricket Association Empaneled Arbitrators to act as presiding Arbitrator, within 15 days of receipt of choice from both the parties.

It is a term of this arbitration agreement that if the parties fail to select, within the period prescribed above, an Arbitrator of their choice from the list of Bihar Cricket Association Empaneled Arbitrators forwarded to them, the Arbitrator Appointing Authority shall himself select and appoint Arbitrator from the said list.

#### **Settlement of Disputes by Conciliation and Arbitration**

**85.5 Applicable Law:** The provisions of the Arbitration and Conciliation Act, 1996 (Act 26 of 1996) and any further statutory modification or re-enactment thereof shall be applicable. Further, the fast-track procedure for arbitration contained in Section 29B of the said Act shall apply.

**85.6 Fee payable to Arbitrator(s):** The fee payable to the arbitral tribunal shall be as per CPWD OM No.2/2006/SE(TLC)/CSQ/137 dated 19.11.2019 (or latest amendment), and shall be shared equally by both the parties.

**85.7 Place of Arbitration:** The place of arbitration shall preferably be as mentioned in Schedule F. However, the Arbitral Tribunal may decide the place in consultation with both the parties.

**85.8 Terms of reference:** The Arbitral Tribunal shall adjudicate on only such disputes as are referred to it by the Arbitrator Appointing Authority and give separate award against each dispute referred to him and shall give reasons for the award in all cases where the total amount of the claim by any party exceeds Rs.1,00,000.

**85.9 Interest on Arbitration award:** It is also a term of this arbitration agreement that where the Arbitral award against any dispute is for the payment of money, no pre-suit and pendent elite interest shall be payable on any part of the Arbitral award.

#### **Clause 86**

The contractor shall fully indemnify and keep indemnified the Governor of Uttar Pradesh against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made or action brought against Government in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the Governor of Uttar Pradesh if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-charge in this behalf.

**Contractor to  
indemnify  
Government  
against Patent  
Rights**

**Withholding and  
lien in respect of  
sum due from  
Contractor**

Clause 87

- (i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-charge or the Government shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-charge or the Government shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the Government or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or Government will be kept withheld or retained as such by the Engineer-in-Charge or Government till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-charge or the Government shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- (ii) Government shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Government to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the contractor, without any interest thereon whatsoever.

Provided that the Government shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Superintending Engineer or Executive Engineer on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Superintending Engineer or the Engineer-in-Charge.

**Lien in respect of  
claims in other  
Contracts**

Clause 88

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-charge or the Government or any other contracting person or persons through Engineer-in-charge against any claim of the Engineer-in-charge or Government or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-charge or the Government or with such other person or persons. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-charge or the Government will be kept withheld or retained as such by the Engineer-in-charge or the Government or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

Clause 89

**Employment of coal  
mining or controlled  
area labour not  
Permissible**

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees, not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Engineer in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to Government a sum calculated at the rate of Rs.100/- per day per labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Explanation:- Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara - a Sub-Division under Santhal Pargana Commissionery, Districts of Bankura, Birbhum, Burdwan, District of Bilaspur.



*APPENDIX-I*  
*Reference of disputes and amount claimed for each dispute to the Conciliator.*  
*[Refer Clause 85]*

To

The Chief Executive Officer

..... (Region) .....

.....

Subject: Reference of disputes and amount claimed for each dispute to the Conciliator for settlement of disputes relating to agreement number:

.....

Dear Sir,

In terms of clause 25 of the aforesaid agreement, particulars of which are given below, I/We hereby refer my / our disputes and amount claimed for each dispute to you for settlement in your capacity as Conciliator.

1. Name of applicant:
2. Whether applicant is Individual/Proprietorship Firm/Partnership Firm/Company:
3. Full address of the applicant:
4. Name of the work and contract number for which arbitration is sought:
5. Name of the Division which entered into contract:
6. Contract amount:
7. Date of contract:
8. Stipulated date of start of work:
9. Stipulated date of completion of work:
10. Actual date of completion of work (if completed):
11. Total number of claims made:
12. Total amount claimed:
13. Date of intimation of final bill (if work is completed):
14. Date of payment of final bill (if work is completed):
15. Amount of final bill (if work is completed):
16. Date of claim made to Engineer-in-Charge:
17. Date of receipt of decision from Engineer-in-Charge:

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose the statement of claims with amount of each claim.

Yours faithfully,

.....

Signature of the applicant (Only the person/authority who signed the contract should sign here)

Copy to:

1. The Honorary Secretary, BCA .....

*APPENDIX-II*

**Agreement towards waiver of Section 12(5) of Arbitration & Conciliation Act 1996  
[Refer to Clause 85]**

1. Whereas certain disputes have arisen between M/s ..... (claimants) and M/s ..... (respondents) relating to agreement No.....
2. And whereas the parties are aware that Shri ..... is on the cadre of BIHAR CRICKET ASSOCIATION; presently on deputation as Arbitrator, Ministry of Housing and Urban Affairs, Government of India.
3. I/we agree for the appointment of Shri ..... as the sole Arbitrator for adjudication of the disputes, and we hereby waive the applicability of Section 12(5) of the Arbitration & Conciliation Act, 1996.

Signature

(Only the person/authority who signed the contract should  
sign here)

Name.....  
.....

Date: .....

(The name of the Arbitrator, Ministry of Housing and Urban Affairs, Government of India may be enquired from the Engineer-in-Charge, if required.

### APPENDIX- III

#### Agreement towards waiver of Section 12(5) of Arbitration & Conciliation Act 1996 [Refer to Clause 25]

1. Whereas certain disputes have arisen between M/s ..... (claimants) and M/s .....  
(respondents) relating to agreement No. ....
2. And whereas the parties are aware that Shri ..... is on the cadre of BIHAR CRICKET ASSOCIATION; presently on deputation as Arbitrator, Ministry of Housing and Urban Affairs, Government of India.
3. I/we agree for the appointment of Shri ..... as the sole Arbitrator for adjudication of the disputes, and we hereby waive the applicability of Section 12(5) of the Arbitration & Conciliation Act, 1996.

Signature

(Only the person/authority who signed the contract should sign here)

Name.....

Date: .....

(The name of the Arbitrator, Ministry of Housing and Urban Affairs, Government of India may be enquired from the Engineer-in-Charge, if required.

## **SCHEDULE 'F'**

<b>SCHEDULE 'F'</b>		
	<b>GENERAL RULES &amp; DIRECTIONS</b>	
	Officer inviting bid	Chief Executive Officer, on behalf of Bihar Cricket association , Bihar

('X'):-.

	<b>DEFINITIONS</b>	
1	Authority executing the agreement on behalf of the Executing Agency	Chief Executive Officer, on behalf of Bihar Cricket association , Bihar. or any officer nominated by BCA.
2(i)	Accepting Authority	BCA( Bihar Cricket Association)
2(vi)	Engineer-in-Charge	Chief Executive Officer ( CEO) or any officer nominated by BCA.
2(ix)	Percentage on cost of materials and labour to cover all Overheads and profits.	15%
2(xi)	Standard Schedule of Rates	Delhi Schedule of Rates 2023, with up to date correction slips ( up to date of floating of NIT)
2(xii)	Department	<b><i>Bihar Cricket Association</i></b>
9(ii)	Standard Contract Form	All uploaded documents
<b>CLAUSES OF CONTRACT</b>		
<b>Clause 2</b>	(i) Time allowed for submission of Performance Guarantee, Programme Chart (Time & Progress) and applicable labour licences, registration with EPFO, ESIC & BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance	<b>15 days</b>
	(ii)Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period as provided in (i) above.	<b>15 days</b>
CLAUSE-8	Authority for fixing compensation under Clause 8.	Chief Executive Officer ( CEO) or any other officer appointed by BCA.
	Authority for deciding incentive under Clause 8	Not Applicable



Clause 16		Number of days from the date of issue of letter of acceptance for reckoning date of Start	10 Days
		Time allowed for execution of the work from Date of Start	24 months+ (3months Commissioning & Handover )
		Authority to decide shifting of date of start in case of delay in handing over of site.	Chief Executive Officer ( CEO) or any other officer appointed by BCA.
		Mile stone(s) will be as per table given below :	
Mile Stone No	Description of Milestone (Physical)	Time allowed in months (from date of start)	Amount to be with- held in case of non - achievement of milestone.
	As per Section -6		
Clause 5.4		Authority for deciding Extension of Time and rescheduling of Milestones	Chief Executive Officer ( CEO) or any other officer appointed by BCA.
Clause 24, 25		Clause applicable – (24 or 25)	Both 24 & 25
Clause 23		Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.	As per Clause 23.0
Clause 7A		Whether clause 7A shall be applicable	Yes
Clause 35		Completion Plans to be Submitted by the Contractor as per specifications	Latest General CPWD Specifications for Electrical works (Part – I internal) and (Part – II External)
Clause 4.0		Whether Mobilisation Advance shall be applicable	Yes
		Whether Clause 5.0 SECURED ADVANCE AGAINST NON-PERISHABLE MATERIALS shall be applicable	Yes
Clause 11		Specifications to be followed for execution of work	CPWD Specifications with up to date correction slips, (up to date floating of tender) and, Technical

		Specifications (Volume IV) , DBR of the tender documents.
<b>Clause 31 &amp; 32</b>	List of mandatory machinery, tools & plants to be deployed at site.	As per GCC
<b>Momeorend um S.No.21</b>	Conciliator	One rank higher to ENGINEER-IN-CHARGE
<b>Clause 15</b>	Authority having option of terminating the Contract in event of death of Contractor	Tender Authority



GST NO: 09ABHFA6943 N1ZU  
PAN : ABHFA6943N

**2023-24**

ABC/23-24/RS/ 00298  
TESTING DATE: 21-01-24

## GEO-TECHNICAL INVESTIGATION AND SOIL EXPLORATION

TEST – REPORT ON SUB-SOIL INVESTIGATION AT THE  
PROPOSED SITE FOR CONSTRUCTION OF MOIN-UL-HAQ  
CRICKET STADIUM BUILDING IN PATNA, DISTRICT- PATNA  
(BIHAR).

*FIELD AND LABORATORY TEST WORK CONDUCTED BY :*

**ABC CONSULTANTS**

C-1074/75, SEC-B, MAHANAGAR LUCKNOW - 226006, (UP)

PHONE NO. – 0522-3527876, 9451371403, 7275268881

*E-mail : [abcconsultant2006@gmail.com](mailto:abcconsultant2006@gmail.com)*

## **ABC CONSULTANTS**

**-: HOUSE FOR :-**

### **Soil / Material Testing, Geological Investigation, Quality Control & Survey of sites**

**Administrative Office: - C-1074/75, SECTOR – B. MAHANAGAR, LUCKNOW**

### **ACKNOWLEDGEMENT**

*We are grateful to the We are grateful to Ar. Sanjay Sinha & Vijay Sinha  
M/s. Sky Line Infra World Pvt. Ltd. Gomti Nagar Lucknow providing an  
opportunity to carry out soil investigation work for proposed Construction of  
Moin-ul-Haq Cricket Stadium Building in Patna, District- Patna (Bihar).*



### **ABC CONSULTANTS**

**(Soil Investigations and Laboratory Works)**

**Authorized Signatory**



**INDEX**

S. No.	Description	Page No.
1.	Introduction	
2.	Field Investigation	
3.	Laboratory work	
4.	Soil classification	
5.	General Nature of soil strata	
6.	Water Table	
7.	Interpretation	
8.	Bearing Capacity Calculation	
9.	Conclusion	

**CONSULTANTS**

## **1.0 INTRODUCTION :**

1.1 This report cover the results of field and Laboratory test conducted at the proposed site for Construction of Moin-ul-Haq Cricket Stadium Building in Patna, District- Patna (Bihar). These Investigations have been made to find out the allowable pressure of the soil required for the safe and economical design and execution of engineering works. The work of soil investigation was entrusted to **ABC CONSULTANTS, Administrative Office:- C-1074/75, SECTOR – B. MAHANAGAR, LUCKNOW**

1.2 It was decided by the concerned to conduct boring at five points up to depth of 30.0 meter each at the points marked by them at the site. Accordingly, the boring was conducted in accordance to I.S:1892–1979. Disturbed & undisturbed soil samples were collected along with conducting the standard penetration test at an interval of 1.5 meter. Or change of strata which ever met earlier starting from boring points to the termination of bore holes.

### **2.1.1 UNDISTURBED SOIL SAMPLES:**

These samples have been collected by the oven dry sampler. After recovery of soil samples from the bore holes the ends of the tube have been cleaned waxed and marked properly. The depth of undisturbed soil samples have been indicated on the bore log chart as well on the Laboratory test result sheet attached. The soil samples have been collected as per I.S. 1892 – 1979.

### **2.1.2 DISTURBED SOIL SAMPLES:**

The depth of the disturbed soil samples have been indicated on the bore log chart as well as on the Laboratory test result and were collected in polythene bags & properly leveled.

### **2.2 STANDARD PENETRATION TEST:**

The Standard Penetration Test has been conducted in the bore log charts at the intervals of 1.5 meter as per latest IS: 2131-1981 i.e. “Method for standard penetration test for soils”.

In this depth Standard split spoon sampler is driven in to the soil are required depth, with the help of drive weight of 63.5 kg falling freely under

gravity through a vertical height of 75cm. The number of blows for every 15 cms is recorded. The number of below for the first 15 cm. is neglected due to local disturbance and as a seating drive. The number of blows next 30 cm. are recorded as penetration blows 'N' of the soil at the depth. The result of the standard penetration test have been indicated on the laboratory test results sheet as well as on the bore log chart.

### 3.0 **LABORATORY WORK**

#### 3.1 **UNDISTURBED SOIL SAMPLES:**

The Undisturbed soils collected from the bore holes have been tested for the following to determine the engineering properties of soil as per requirement.

- a) Sieve Analysis (I.S. Code 2720 (Part IV)-2007
- b) Atterberg's Limit (Via Liquid and Plastic Limit & Plasticity Index)  
(I.S. Code 2720 (Part V)-2007
- c) Particle size analysis (I.S. Code 2720 (Part IV)-2007
- d) Bulk and Dry Density (I.S. Code 2720 (Part XXIX)-2007
- e) Natural Moisture Content (I.S. Code 2720 (Part II)-2010
- f) Shear Parameters C &  $\Phi$  (I.S. Code 2720 (Part XII & XIII)-2007
- g) Consolidation Test (For determination of Cc values of clayey soil samples)  
(I.S. Code 2720 (Part XV)-2007
- h) Specific Gravity (I.S. Code 2720 (Part III)-2007

#### 3.2 **DISTURBED SOIL SAMPLES :**

The disturbed soil samples have been tested for the following parameters.

- a) Sieve Analysis (I.S. Code 2720 (Part IV)-2007
- b) Atterberg's Limits (I.S. Code 2720 (Part IV)-2007

The entire Laboratory has been carried out as per relevant I.S. code & has been tabulated.

### 4.0 **SOIL CLASSIFICATION:**

Soil classification has been done with the help of the soil properties obtained by laboratory test as per I.S. 1498 "Methods of classification and identification of soil for general engineering purposes".

- 5.0 The general nature of the soil strata met during boring in each of bore holes are indicated on the bore log charts as well as on the laboratory test results sheet. The filled-up soil met up to 0.50m depth below existing ground level. The entire Strata comprises of 'CI' silty clay of medium plasticity

#### **STANDARD PENETRATION TEST:**

The 'N' values (or SPT values recorded) during penetration test in the strata in all the bore hole No. 1, 2, 3, 4 & 5 were found vary from 8 to 48 indicate the consistency of the soil as medium.

#### **6.0 WATER TABLE:**

The depth of water table was met at about of 10.50 m depth during boring operation in bore hole at the time of soil exploration in the month of since January 2024. Water is expected 1.00 m rise in post monsoon period. Accordingly, water table is assuming 9.50 m for calculation purpose.

#### **7.0 INTERPRETATION OF THE TEST RESULTS:**

- 7.1 The choice of the type of foundation depends upon the safe bearing capacity, design and layout of super structure, relative economics of various alternatives and practical consideration. In case of strip footing the safe bearing capacity / allowable bearing pressure, calculation is governed by IS: 6403-1981, for shear consideration & IS: 1904-1986 & IS: 8009 (Part-I)-1976, for consideration of settlement.

#### **7.2 SHEAR CONSIDERATION:**

The modified bearing capacity formula are as below considering the shape of footing, inclination of loading, depth of embedment and effect of water table.

$$Q_s = 1/F [C.N_c.S_c.d_c.i_c. + q(N_q-1) S_q.d_q.i_q. + 0.50 \gamma B. N_{\gamma}.s_{\gamma}.d_{\gamma}.i_{\gamma}.w']$$

Where:

Qs = Bearing capacity on shear consideration in Kg/cm<sup>2</sup>

F = Factor of safety



$\gamma$	= Unit weight of soil
$C$	= Cohesion in Kg/cm <sup>2</sup>
$q$	= effective overburden pressure Kg/cm <sup>2</sup>
$B$	= Width of footing
$w'$	= Correction factor for position of water table.
$N_c.N_q.N_\gamma$	= Non dimensional bearing capacity factors depends upon angle of internal friction $\phi$ and void ratio $e$
$S_c.S_q.S_\gamma$	= Shape factors
$d_c.d_q.d_\gamma$	= Depth factors
$i_c.i_q.i_\gamma$	= Inclination factors

### 7.3 **SETTLEMENT CONSOLIDATION:** (For Plastic soil)

The settlement in the plastic soil indicating some cohesion is given by the formula:

$$S = \frac{C_c}{1 + e_o} \times H \times \log_{10} \frac{P_o + \Delta P}{P_o}$$

Where:

$C_c$	=	Compression Index
$H$	=	Thickness of Plastic layer
$P_o$	=	Original Pressure at mid depth of Plastic layer
$\Delta P$	=	Change in Pressure at mid depth of Plastic layer
$e_o$	=	Void ratio for pressure $P_o$

### 7.4 **SETTLEMENT CONSIDERATION:** (For non-Plastic soils)

The allowable bearing pressure is also to be so restricted that the anticipated settlement does not exceed the permissible settlement as specified in IS: 1904-1986, for a particular type of structure and nature of soil.

## 8.0 COMPUTATION OF BEARING CAPACITY:

### 8.1 BEARING CAPACITY FROM SHEAR CRITERIA:

Bearing capacity calculations were carried out Isolated / R.C.C. Raft Foundation at depth 1.50m, 2.00m below ground level with size of footing 1.50m, 2.00m & (10.0x10.0) m However governing values of bearing capacity was found the calculations for the same are produced below:

#### 8.1.1 Bearing capacity Calculation:

Governing soil parameter are from bore hole no. 01

1. Angle of internal friction  $\phi$  =  $5^0$
2. Cohesion C = 0.39 Kg/cm<sup>2</sup>
3. Unit weight of soil  $\gamma$  = 1.77 gm/cc
4. Submerged density. of soil  $\gamma$  = -
5. Specific Gravity = 2.72
6. Dry Density = 1.61 gm/cc
7. Void ratio  $e_0$  = 0.69
8. Condition = Medium (Interpolation)
9. Bearing Capacity Factor

Shear Parameters	Nc	Nq	Nr
General Shear failure $e_0 \leq 0.55$	6.490	1.570	0.450
Local Shear failure $> 0.75$	6.040	1.380	0.300
Interpolated value for $e_0 = 0.69$	6.175	1.437	0.345

10. Water Table correction Factor  $w'$  = 1.0
11. Overburden pressure  $q$  at depth 1.50 m = 0.266 Kg/cm<sup>2</sup>
12. Type of foundation = Isolated Foundation
13. Depth of foundation  $d_f$  = 1.50 m
14. Width of foundation = 1.50 m
15. Shape factors

$$S_c = 1.30 \quad S_q = 1.20, \quad S_\gamma = 0.80$$

16. Inclination factors

$$i_c = 1.0, \quad i_q = 1.0, \quad i_\gamma = 1.0$$

17. Depth Factors

$$d_c = 1.218 \quad d_q \text{ \& } d_\gamma = 1.0$$

18. Factor of safety  $f = 3.0$

**Bearing Capacity: -**

$$\begin{aligned} Q_c &= 1/3 [0.2987 \times 6.175 \times 1.218 \times 1.30 \times 1.0 + 0.266 \times (1.437 - 1.0) \times 1.20 \times 1.0 + 0.5 \\ &\quad \times 1.77 \times 1.50 \times 0.345 \times 0.80 \times 1.0 \times 1.0 / 10.0] \\ &= 1/3 [2.921 + 0.139 + 0.037] \text{ Kg/cm}^2 \\ &= 1.032 \text{ Kg/cm}^2 \end{aligned}$$

**8.1.2 Bearing capacity Calculation:**

Governing soil parameter are from bore hole no. 01

1. Angle of internal friction  $\phi = 6^\circ$
2. Cohesion  $C = 0.38 \text{ Kg/cm}^2$
3. Unit weight of soil  $\gamma = 1.79 \text{ gm/cc}$
4. Submerged density. of soil  $\gamma = -$
5. Specific Gravity  $= 2.72$
6. Dry Density  $= 1.62 \text{ gm/cc}$
7. Void ratio  $e_0 = 0.68$
8. Condition  $= \text{Medium (Interpolation)}$
9. Bearing Capacity Factor

Shear Parameters	Nc	Nq	Nr
General Shear failure $e_0 \leq 0.55$	6.860	1.750	0.604
Local Shear failure $> 0.75$	6.220	1.456	0.360
Interpolated value for $e_0 = 0.68$	6.444	1.559	0.445

10. Water Table correction Factor  $w' = 1.0$
11. Overburden pressure  $q$  at depth 2.00 m  $= 0.358 \text{ Kg/cm}^2$
12. Type of foundation  $= \text{Isolated Foundation}$
13. Depth of foundation  $d_f = 2.00 \text{ m}$
14. Width of foundation  $= 2.00 \text{ m}$

## 15. Shape factors

$$S_c = 1.30 \quad S_q = 1.20, \quad S_\gamma = 0.80$$

## 16. Inclination factors

$$i_c = 1.0, \quad i_q = 1.0, \quad i_\gamma = 1.0$$

## 17. Depth Factors

$$d_c = 1.222 \quad d_q \text{ \& } d_\gamma = 1.0$$

18. Factor of safety  $f = 3.0$ **Bearing Capacity: -**

$$\begin{aligned} Q_c &= 1/3 [0.2975 \times 6.444 \times 1.222 \times 1.30 \times 1.0 + 0.358 \times (1.559 - 1.0) \times 1.20 \times 1.0 + 0.5 \\ &\quad \times 1.79 \times 2.00 \times 0.445 \times 0.80 \times 1.0 \times 1.0 / 10.0] \\ &= 1/3 [3.046 + 0.240 + 0.064] \text{ Kg/cm}^2 \\ &= 1.117 \text{ Kg/cm}^2 \end{aligned}$$

**8.1.3 Bearing capacity Calculation:**

Governing soil parameter are from bore hole no. 01

1. Angle of internal friction  $\phi = 6^\circ$
2. Cohesion  $C = 0.38 \text{ Kg/cm}^2$
3. Unit weight of soil  $\gamma = 1.79 \text{ gm/cc}$
4. Submerged density. of soil  $\gamma = -$
5. Specific Gravity  $= 2.72$
6. Dry Density  $= 1.62 \text{ gm/cc}$
7. Void ratio  $e_0 = 0.68$
8. Condition  $= \text{Medium (Interpolation)}$
9. Bearing Capacity Factor

Shear Parameters	Nc	Nq	Nr
General Shear failure $e_0 \leq 0.55$	6.860	1.750	0.604
Local Shear failure $> 0.75$	6.220	1.456	0.360
Interpolated value for $e_0 = 0.68$	6.444	1.559	0.445

10. Water Table correction Factor  $w' = 0.875$
11. Overburden pressure  $q$  at depth 2.00 m  $= 0.358 \text{ Kg/cm}^2$
12. Type of foundation  $= \text{R.C.C. raft foundation}$

13. Depth of foundation  $d_f$  = 2.00 m
14. Width of foundation = (10.0x10.0) m
15. Shape factors

$$S_c = 1.20 \quad S_q = 1.20, \quad S_\gamma = 0.60$$

16. Inclination factors

$$i_c = 1.0, \quad i_q = 1.0, \quad i_\gamma = 1.0$$

17. Depth Factors

$$d_c = 1.044 \quad d_q \text{ \& } d_\gamma = 1.0$$

18. Factor of safety  $f = 3.0$

**Bearing Capacity: -**

$$\begin{aligned} Q_c &= 1/3[0.2975 \times 6.444 \times 1.044 \times 1.20 \times 1.0 + 0.358 \times (1.559 - 1.0) \times 1.20 \times 1.0 + 0.5 \\ &\quad \times 1.79 \times 10.00 \times 0.445 \times 0.60 \times 1.0 \times 0.875 / 10.0] \\ &= 1/3 [2.402 + 0.240 + 0.209] \text{ Kg/cm}^2 \\ &= 0.950 \text{ Kg/cm}^2 \end{aligned}$$

**8.2.0 BEARING CAPACITY FROM SETTLEMENT FAILURE CRITERIA:**

**Settlement of Cohesive soil at 1.50 m Depth**

Description	Calculation
Thickness of compressible layer	2.25
Mid depth of clay layer	1.125
Pressure at foundation level	0.266
Po original pressure at mid depth	0.465
Net safe bearing capacity	1.032
Change pressure at foundation level	0.767
Influence factor	0.688
Change pressure at mid layer	0.528
$P_0 + \Delta P / P_0$	2.135
Log $P_0 + \Delta P / P_0$	0.329

Void ratio $e_o$	0.69
Compression Index $C_c$	0.154
Settlement	6.75
Settlement after applying rigidity & depth factor	3.943

The settlement is less than permissible limit 5.0 cm as per I.S: 1904 - 1986.

Then safe Bearing capacity 10.32 t/m<sup>2</sup>.

### **8.2.1 BEARING CAPACITY FROM SETTLEMENT FAILURE CRITERIA :**

#### **Settlement of Cohesive soil at 2.00 m Depth**

<b>Description</b>	<b>Calculation</b>
Thickness of compressible layer	3.00
Mid depth of clay layer	1.50
Pressure at foundation level	0.358
Po original pressure at mid depth	0.627
Net safe bearing capacity	1.117
Change pressure at foundation level	0.759
Influence factor	0.688
Change pressure at mid layer	0.522
$P_0 + \Delta P / P_0$	1.833
$\log P_0 + \Delta P / P_0$	0.263
Void ratio $e_o$	0.68
Compression Index $C_c$	0.151
Settlement	7.10
Settlement after applying rigidity & depth factor	4.146

The settlement is less than permissible limit 5.0 cm as per I.S: 1904 - 1986.

Then safe Bearing capacity 11.17 t/m<sup>2</sup>.

### 8.2.2 BEARING CAPACITY FROM SETTLEMENT FAILURE CRITERIA :

#### Settlement of Cohesive soil at 2.00 m Depth

Description	Calculation
Thickness of compressible layer	15.00
Mid depth of clay layer	7.50
Pressure at foundation level	0.358
Po original pressure at mid depth	1.701
Net safe bearing capacity	0.950
Change pressure at foundation level	0.592
Influence factor	0.688
Change pressure at mid layer	0.408
$P_0 + \Delta P / P_0$	1.240
$\log P_0 + \Delta P / P_0$	0.094
Void ratio $e_0$	0.68
Compression Index $C_c$	0.151
Settlement	12.68
Settlement after applying rigidity & depth factor	7.405

The settlement is less than permissible limit 10.0 cm as per I.S: 1904 - 1986.

Then safe Bearing capacity 9.50 t/m<sup>2</sup>.

### 9.0 SAFE LOAD FROM ULTIMATE LOAD CAPACITY:

The Ultimate bearing capacity of pile can be calculated from soil properties as per IS: 2911 (Part-I /Sec 2)-2010. The soil properties required are strength properties, cohesion, angle of internal friction and soil density. If these properties are not available directly from laboratory and field tests, they may be indirectly obtained from in situ penetration test data.

#### STATIC FORMULA: -

##### (A) Clayey soil: -

The ultimate bearing capacity of pile in cohesive soil may be worked out from the following formula: -

$$Q_u = A_p \cdot N_c \cdot C_p + \sum_{i=1}^n \alpha_i \cdot C_i \cdot A_{si}$$

Where

$Q_u$  = Ultimate bearing capacity of pile (Kg.).

$A_p$  = Cross sectional area of pile stem at toe Level (Cm<sup>2</sup>).

$N_c$  = Bearing Capacity Factor Usually taken as (9.0).

$C_p$  = Average Cohesion at pile tip (Kg/ Cm<sup>2</sup>).

$\alpha_i$  = Adhesion factor = 1.0

$C_i$  = Average Cohesion throughout the length of pile (Kg/ Cm<sup>2</sup>).

$A_{si}$  = Surface area of the pile shaft (Cm<sup>2</sup>).

##### (B) For Sandy Soil: -

The ultimate bearing capacity of pile in non-cohesive soil may be worked out from the following formula: -



$$Q_u = A_p (0.50 \cdot \gamma \cdot D \cdot N_r + P_D \cdot N_q) + \sum_{i=1}^n K \cdot P_{Di} \cdot \tan \delta \cdot A_{si}$$

Where

$A_p$  = Cross-sectional area of pile toe in  $\text{cm}^2$ .

$D$  = Stem diameter in cm.

$\gamma$  = Effective unit weight of soil at pile toe  $\text{Kgf}/\text{cm}^3$ .

$P_D$  = Effective over burden pressure at pile toe  $\text{Kgf}/\text{cm}^2$ .

$N_q$  &  $N_r$  = Bearing Capacity Factors depending upon the angle of internal friction  $\Phi$  at toe.

$K$  = Earth pressure coefficient

$\delta$  = Angle of wall friction (may be taken equal to the angle of internal friction of soil).

$\sum_{i=1}^n$  = Summation for  $n$  layers which piles is installed

$P_{Di}$  = Effective over burden pressure in  $\text{Kgf}/\text{cm}^2$  for the  $i^{\text{th}}$  layer where  $i$  varies from 1 to  $n$ .

$A_{si}$  = Surface area of the pile stem in  $\text{cm}^2$  in the  $i^{\text{th}}$  layer where  $i$  varies from 1 to  $n$ .

### 9.01 Calculation

The soil strata comprise of cohesion soil the safe load may be estimated using clayey soil formula and tabulated below.

Length of pile = 15.0m  
Dia of pile = 0.50m

Depth (m)	Ap (cm <sup>2</sup> )	Nc	C <sub>p</sub> (kg/cm <sup>2</sup> )	α	C <sub>i</sub> (kg/cm <sup>2</sup> )	As / Asi (cm <sup>2</sup> )	D (cm)	Y	P <sub>d</sub>	N <sub>q</sub>	N <sub>r</sub>	K	P <sub>di</sub>	φ	Qu		F.O.C.	Safe load on pile (tone)
															( Kg )	(Tone )		
1.50	1962.5	9	0.39	1	0.39	27475	50.0	-	-	-	-	-	-	-	17603.63	17.60	2.50	7.04
1.50	1962.5	9	0.38	1	0.38	27475	50.0	-	-	-	-	-	-	-	17152.25	17.15	2.50	6.86
1.50	1962.5	9	0.46	1	0.46	27475	50.0	-	-	-	-	-	-	-	20763.25	20.76	2.50	8.31
1.50	1962.5	9	0.40	1	0.40	27475	50.0	-	-	-	-	-	-	-	18055.00	18.06	2.50	7.22
1.50	1962.5	9	0.41	1	0.41	27475	50.0	-	-	-	-	-	-	-	18506.38	18.51	2.50	7.40
1.50	1962.5	9	0.36	1	0.36	27475	50.0	-	-	-	-	-	-	-	16249.50	16.25	2.50	6.50
1.50	1962.5	9	0.32	1	0.32	27475	50.0	-	-	-	-	-	-	-	14444.00	14.44	2.50	5.78
1.50	1962.5	9	0.38	1	0.38	27475	50.0	-	-	-	-	-	-	-	17152.25	17.15	2.50	6.86
1.50	1962.5	9	0.39	1	0.39	27475	50.0	-	-	-	-	-	-	-	17603.63	17.60	2.50	7.04
1.50	1962.5	9	0.40	1	0.40	27475	50.0	-	-	-	-	-	-	-	18055.00	18.06	2.50	7.22
Total length= 15.0m`															Total Safe load		70.23	

### 9.02 Calculation

The soil strata comprise of cohesion soil the safe load may be estimated using clayey soil formula and tabulated below.

Length of pile = 18.0m  
Dia of pile = 0.60m

Depth (m)	Ap (cm <sup>2</sup> )	Nc	C <sub>p</sub> (kg/cm <sup>2</sup> )	α	C <sub>i</sub> (kg/cm <sup>2</sup> )	As / Asi (cm <sup>2</sup> )	D (cm)	Y	P <sub>d</sub>	N <sub>q</sub>	N <sub>r</sub>	K	P <sub>di</sub>	φ	Qu		F.O.C.	Safe load on pile (tone)
															( Kg )	(Tone )		
1.50	1962.5	9	0.39	1	0.39	27475	50.0	-	-	-	-	-	-	-	17603.63	17.60	2.50	7.04
1.50	1962.5	9	0.38	1	0.38	27475	50.0	-	-	-	-	-	-	-	17152.25	17.15	2.50	6.86
1.50	1962.5	9	0.46	1	0.46	27475	50.0	-	-	-	-	-	-	-	20763.25	20.76	2.50	8.31
1.50	1962.5	9	0.40	1	0.40	27475	50.0	-	-	-	-	-	-	-	18055.00	18.06	2.50	7.22
1.50	1962.5	9	0.41	1	0.41	27475	50.0	-	-	-	-	-	-	-	18506.38	18.51	2.50	7.40
1.50	1962.5	9	0.36	1	0.36	27475	50.0	-	-	-	-	-	-	-	16249.50	16.25	2.50	6.50
1.50	1962.5	9	0.32	1	0.32	27475	50.0	-	-	-	-	-	-	-	14444.00	14.44	2.50	5.78
1.50	1962.5	9	0.38	1	0.38	27475	50.0	-	-	-	-	-	-	-	17152.25	17.15	2.50	6.86
1.50	1962.5	9	0.39	1	0.39	27475	50.0	-	-	-	-	-	-	-	17603.63	17.60	2.50	7.04
1.50	1962.5	9	0.40	1	0.40	27475	50.0	-	-	-	-	-	-	-	18055.00	18.06	2.50	7.22
1.50	1962.5	9	0.34	1	0.34	27475	60.0	-	-	-	-	-	-	-	15346.75	15.35	2.50	6.14
1.50	1962.5	9	0.41	1	0.41	27475	60.0	-	-	-	-	-	-	-	18506.38	18.51	2.50	7.40
Total length= 18.0m`															Total Safe load		83.78	

## 9.0 RECOMMENDATION:

- 9.1 The soil strata are effective zone comprises of cohesive layers. The design load has therefore to ensure safety against failure due to shear failure.
- 9.2 The water table was met up to 10.50 m depth below existing ground level. Water is expected 1.00 m rise in post monsoon period. Accordingly, water table is assuming 9.50 m for calculation purpose.
- 9.3 The filled-up soil met maximum up to 0.50m depth.
- 9.4 The values of net safe bearing capacity for Isolated / R.C.C. Raft foundation below existing ground level are tabulated below: -

S. L. No.	Depth (m)	Type of foundation	Width of foundation (m)	Allowable Bearing Capacity	
				Kg/cm <sup>2</sup>	T/m <sup>2</sup>
1	1.50	Isolated foundation	1.50	1.032	10.32
2			2.00	1.117	11.17
3	2.00	R.C.C. Raft foundation	(10.0x10.0)	0.950	9.50

**If above values do not suit the designer alternately pile foundation may be provided at this site.**

- 9.5 The safe load on pile is calculated as per I.S. 2911(Part III)-1980. As per Static formula calculations are assumed for design and tabulated below

Length of Pile(m)	Dia of Pile (cm)	Safe Load On Pile (Tone)
15.00	50.0	70.23
18.00	50.0	83.78

**Final design diameter & length of pile etc. will depend on incoming loads and capacity of piles, as determine by load test at site.**

The above recommendations are based on the field investigation data and the laboratory test result of the sample collected from site and our experience in this regard.

If the actual sub – soil condition during excavation for foundation differs from that has been reported a reference should be made to us for suggestion



**ABC CONSULTANTS**

(Soil Investigations and Laboratory Works)

*[Handwritten Signature]*  
Authorized Signatory



L+P Load Schedule

Project - Proposed Construction of International Cricket Stadium at Patna.

Name of Building- Hotel Block

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2x5A Plug Point Separate On Raw Power	2x5A Plug Point Separate On UPS	15A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	Decorative Side Lamp LED	10W LED Bulk Head	20W LED Batten	36W 600x600 LED Panel	Flood Light	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	DND & MMR & Key Tag	Call Bell
<b>Ground Floor</b>																					
1	Entrance			4		4			12						1						
2	Corridor		2			2			14						1						
3	Staircase-1								2												
4	Staircase-2								2												
5	Lift Well-1					1					1										
6	Lift Well-2					1					1										
7	Lift Well-3					1					1										
8	Lift Well-4					1					1										
9	Restaurant & Kitchen-1		12	2	2	12	10		12			4			1		6				
10	Restaurant & Kitchen-2		12	2	2	12	10		12			8			1		6				
11	He Toilet					2	4	4	1						1						
12	She Toilet					2	4	2							1						
13	Guest Room		4	2	1	4	2	2	6	2						1				1	1
14	Guest Room		4	2	1	4	2	2	6	2						1				1	1
15	Guest Room		4	2	1	4	2	2	6	2						1				1	1
16	Guest Room		4	2	1	4	2	2	6	2						1				1	1
17	Guest Room		4	2	1	4	2	2	6	2						1				1	1
18	Guest Room		4	2	1	4	2	2	6	2						1				1	1
19	Guest Room		4	2	1	4	2	2	6	2						1				1	1
20	Guest Room		4	2	1	4	2	2	6	2						1				1	1
<b>Total-A (Ground Floor)</b>		<b>0</b>	<b>58</b>	<b>24</b>	<b>12</b>	<b>70</b>	<b>44</b>	<b>22</b>	<b>103</b>	<b>16</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>
<b>First Floor</b>																					
1	Entrance			4		4			12						1						
2	Corridor		2			2			14						1						
3	Staircase-1								2												
4	Staircase-2								2												
5	Lift Well-1					1					1										
6	Lift Well-2					1					1										
7	Lift Well-3					1					1										
8	Lift Well-4					1					1										
9	Restaurant & Kitchen-1		12	2	2	12	10		12			4			1		6				
10	Restaurant & Kitchen-2		12	2	2	12	10		12			8			1		6				
11	He Toilet					2	4	4	1						1						
12	She Toilet					2	4	2							1						
13	Guest Room		4	2	1	4	2	2	6	2						1				1	1
14	Guest Room		4	2	1	4	2	2	6	2						1				1	1
15	Guest Room		4	2	1	4	2	2	6	2						1				1	1
16	Guest Room		4	2	1	4	2	2	6	2						1				1	1
17	Guest Room		4	2	1	4	2	2	6	2						1				1	1
18	Guest Room		4	2	1	4	2	2	6	2						1				1	1
19	Guest Room		4	2	1	4	2	2	6	2						1				1	1
20	Guest Room		4	2	1	4	2	2	6	2						1				1	1
<b>Total-B (FF)</b>		<b>0</b>	<b>58</b>	<b>24</b>	<b>12</b>	<b>70</b>	<b>44</b>	<b>22</b>	<b>103</b>	<b>16</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>
<b>Second Floor</b>																					
1	Entrance			4		4			12						1						
2	Corridor		2			2			14						1						
3	Staircase-1								2												
4	Staircase-2								2												
5	Lift Well-1					1					1										
6	Lift Well-2					1					1										
7	Lift Well-3					1					1										
8	Lift Well-4					1					1										
9	Gymnasium		6	2	2	6	10						20		1		6				
10	Recreational Office		6	2	2	6	10						20		1		6				
11	He Toilet					2	4	4	1												
12	She Toilet					2	4	2							1						
13	Guest Room		4	2	1	4	2	2	6	2						1				1	1
14	Guest Room		4	2	1	4	2	2	6	2						1				1	1
15	Guest Room		4	2	1	4	2	2	6	2						1				1	1
16	Guest Room		4	2	1	4	2	2	6	2						1				1	1
17	Guest Room		4	2	1	4	2	2	6	2						1				1	1
18	Guest Room		4	2	1	4	2	2	6	2						1				1	1
19	Guest Room		4	2	1	4	2	2	6	2						1				1	1
20	Guest Room		4	2	1	4	2	2	6	2						1				1	1
<b>Total-C (Second Floor)</b>		<b>0</b>	<b>46</b>	<b>24</b>	<b>12</b>	<b>58</b>	<b>44</b>	<b>22</b>	<b>79</b>	<b>16</b>	<b>4</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>
<b>Third Floor</b>																					
1	Entrance			4		4			12						1						
2	Corridor		2			2			14						1						
3	Staircase-1								2												
4	Staircase-2								2												
5	Lift Well-1					1					1										
6	Lift Well-2					1					1										
7	Lift Well-3					1					1										
8	Lift Well-4					1					1										
9	Guest Room		4	2	1	4	2	2	6	2						1				1	1
10	Guest Room		4	2	1	4	2	2	6	2						1				1	1
11	Guest Room		4	2	1	4	2	2	6	2						1				1	1
12	Guest Room		4	2	1	4	2	2	6	2						1				1	1
13	Guest Room		4	2	1	4	2	2	6	2						1				1	1
14	Guest Room		4	2	1	4	2	2	6	2						1				1	1
15	Guest Room		4	2	1	4	2	2	6	2						1				1	1

16	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
17	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
18	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
19	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
20	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
	Total-D (Third Floor)	0	50	28	12	58	24	24	102	24	4	0	0	0	2	12	0	0	0	12	12
	<b>Forth Floor</b>																				
1	Entrance			4		4			12						1						
2	Corridor		2			2			14						1						
3	Staircase-1								2												
4	Staircase-2								2												
5	Lift Well-1					1					1										
6	Lift Well-2					1					1										
7	Lift Well-3					1					1										
8	Lift Well-4					1					1										
9	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
10	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
11	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
12	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
13	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
14	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
15	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
16	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
17	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
18	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
19	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
20	Guest Room		4	2	1	4	2	2	6	2					1				1	1	
	Total-E (Forth Floor)	0	50	28	12	58	24	24	102	24	4	0	0	0	2	12	0	0	0	12	12
	<b>Terrace Floor</b>																				
1	Staircase-1								2												
2	Staircase-2								2												
3	Lift Well-1					1					1										
4	Lift Well-2					1					1										
5	Lift Well-3					1					1										
6	Lift Well-4					1					1										
7	Store Room		6			6						9			1	6					
8	Store Room		6			6						9			1	6					
9	Male Change Room		2			2	12	4	10		2				1						
10	Female Change Room		2			2	12	4	10		2				1						
11	Terrace Area												6								
	Total-F (Terrace Floor)	0	16	0	0	20	24	8	24	0	8	0	18	6	4	12	0	0	0	0	0
	<b>Grand Total</b>	0	278	128	60	334	204	122	513	96	28	24	58	6	26	60	36	0	0	48	48
	<b>Load Per Unit</b>	100	100	200	200	1000	10	12	15	15	10	20	36	150	6	35	50	50	50	20	50
	<b>Total Load</b>	0	27800	25600	12000	334000	2040	1464	7695	1440	280	480	2088	900	156	###	1800	0	0	960	2400

IN W 4,23,203.00

IN KW 423.20

A. **Light + Fan Load :**

35.80 KW

**Consider Diversity Factor @ 80%**

28.64 KW

**Load (in Amps) :**  $\frac{P}{\sqrt{3}V\cos\phi}$

47.74 Amp.

B. **Plug & Power Plug Load :**

387.40 KW

**Consider Diversity Factor @ 40%**

154.96 KW

**Load (in Amps) :**  $\frac{P}{\sqrt{3}V\cos\phi}$

258.28 Amp.

C. **HVAC Load :**

250.00 KW

**Consider Diversity Factor @ 80%**

200.00 KW

**Load (in Amps) :**  $\frac{P}{\sqrt{3}V\cos\phi}$

333.35 Amp.

D. **Lift Load :**

40.00 KW

**Consider Diversity Factor @ 100%**

40.00 KW

**Load (in Amps) :**  $\frac{P}{\sqrt{3}V\cos\phi}$

66.67 Amp.

**Total Load (In kW) :**

423.60 KW

**Total Load (In kVA) :**

529.50 For 1 Block

## L+P Load Schedule

Project - Proposed Construction of International Cricket Stadium at Patna.

Name of Building- South Pavillian

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2.5A Plug Point Separate On Raw Power	2.5A Plug Point Separate On UPS	1.5A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	Decorative Side Lamp LED	10W LED Bulk Head	20W LED Batten	36W 60x60 LED Panel	150W LED Flood Light	Decorative Pendant LED for Double Height	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	DND & MMR & Key Tag	Call Bell
1st Level																						
1	Total Quantity		72	2	36	76	24	11	76		6	14	160			17		34				
	Total-A	0	72	2	36	76	24	11	76	0	6	14	160	0	0	17	0	34	0	0	0	0
2nd Level																						
1	Total Quantity		60	13	50	60	16	8	120		4	12	103		15	11		30				
	Total-B	0	60	13	50	60	16	8	120	0	4	12	103	0	15	11	0	30	0	0	0	0
3rd Level																						
1	Total Quantity		60	13	50	60	16	9	84		4	12	87			11		30				
2	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
3	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
4	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
5	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
6	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
7	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
8	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
9	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
10	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
11	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
12	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
13	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
	Total-C	0	108	41	62	112	40	33	164	24	4	12	87	0	0	11	0	42	0	0	12	12
4th Level																						
1	Total Quantity		44	11	11	44	11	11	72		4	12	77			11		44				
2	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
3	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
4	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
5	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
6	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
7	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
8	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
9	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
10	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
11	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
12	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
13	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
	Total-D	0	92	39	23	96	35	35	152	24	4	12	77	0	0	11	0	56	0	0	12	12
5th Level																						
1	Total Quantity		44	11	11	44	11	11	72		4	12	77			11		44				
2	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
3	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
4	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
5	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
6	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
7	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
8	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
9	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
10	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
11	Guest Room		4	2	1	4	2	2	5	2								1		1	1	
12	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
13	Guest Room		4	4	1	6	2	2	15	2								1		1	1	
	Total-E	0	92	39	23	96	35	35	152	24	4	12	77	0	0	11	0	56	0	0	12	12
6th Level																						
1	Total Quantity					18			4		4			80								
	Total-F	0	0	0	0	18	0	0	4	0	4	0	0	80	0	0	0	0	0	0	0	0
Grand Total																						
Load Per Unit																						
Total Load																						
		0	424	134	194	458	150	122	668	72	26	62	504	80	15	61	0	218	0	0	36	36
		100	100	200	200	1000	10	12	15	15	10	20	36	150	35	6	35	50	50	50	20	50
		0	42400	26800	38800	458000	1500	1464	10020	1080	260	1240	18144	12000	525	366	0	#####	0	0	720	1800

IN W 6,26,019.00

IN KW 626.02

A. Light + Fan Load :

98.82 KW

Consider Diversity Factor @ 80%

79.06 KW

Load (in Amps):  $\frac{P =}{\sqrt{3}V\cos\phi}$ 

131.77 Amp.

B. Plug & Power Plug Load :

527.20 KW

Consider Diversity Factor @ 40%

263.60 KW

Load (in Amps):  $\frac{P =}{\sqrt{3}V\cos\phi}$ 

439.36 Amp.

C. HVAC Load :

350.00 KW

Consider Diversity Factor @ 80%

280.00 KW

Load (in Amps):  $\frac{P =}{\sqrt{3}V\cos\phi}$ 

466.69 Amp.

D. Lift Load :

45.00 KW

Consider Diversity Factor @ 100%

45.00 KW

Load (in Amps):  $\frac{P =}{\sqrt{3}V\cos\phi}$ 

75.00 Amp.

Total Load (In kW):

667.66 KW

Total Load (In kVA):

834.57 For 1 Block

## L+P Load Schedule

Project - Proposed Construction of International Cricket Stadium at Patna.

Name of Building- North Pavillian

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2x5A Plug Point Separate On Raw Power	2x5A Plug Point Separate On UPS	15A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	Decorative Side Lamp LED	10W LED Bulk Head	20W LED Batten	36W 600x600 LED Panel	150W LED Flood Light	Decorative Pendant LED for Double Height	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	DND & MMR & Key Tag	Call Bell
1st Level																						
1	Total Quantity		72	2	36	76	24	11	76		6	14	160			17		34				
	Total-A	0	72	2	36	76	24	11	76	0	6	14	160	0	0	17	0	34	0	0	0	0
2nd Level																						
1	Total Quantity		60	13	50	60	16	8	120		4	12	103		15	11		30				
	Total-B	0	60	13	50	60	16	8	120	0	4	12	103	0	15	11	0	30	0	0	0	0
3rd Level																						
1	Total Quantity		60	13	50	60	16	9	84		4	12	87			11		30				
2	Guest Room		4	2	1	4	2	2	5	2								1			1	1
3	Guest Room		4	2	1	4	2	2	5	2								1			1	1
4	Guest Room		4	2	1	4	2	2	5	2								1			1	1
5	Guest Room		4	2	1	4	2	2	5	2								1			1	1
6	Guest Room		4	2	1	4	2	2	5	2								1			1	1
7	Guest Room		4	2	1	4	2	2	5	2								1			1	1
8	Guest Room		4	2	1	4	2	2	5	2								1			1	1
9	Guest Room		4	2	1	4	2	2	5	2								1			1	1
10	Guest Room		4	2	1	4	2	2	5	2								1			1	1
11	Guest Room		4	2	1	4	2	2	5	2								1			1	1
12	Guest Room		4	4	1	6	2	2	15	2								1			1	1
13	Guest Room		4	4	1	6	2	2	15	2								1			1	1
	Total-C	0	108	41	62	112	40	33	164	24	4	12	87	0	0	11	0	42	0	0	12	12
4th Level																						
1	Total Quantity		44	11	11	44	11	11	72		4	12	77			11		44				
2	Guest Room		4	2	1	4	2	2	5	2								1			1	1
3	Guest Room		4	2	1	4	2	2	5	2								1			1	1
4	Guest Room		4	2	1	4	2	2	5	2								1			1	1
5	Guest Room		4	2	1	4	2	2	5	2								1			1	1
6	Guest Room		4	2	1	4	2	2	5	2								1			1	1
7	Guest Room		4	2	1	4	2	2	5	2								1			1	1
8	Guest Room		4	2	1	4	2	2	5	2								1			1	1
9	Guest Room		4	2	1	4	2	2	5	2								1			1	1
10	Guest Room		4	2	1	4	2	2	5	2								1			1	1
11	Guest Room		4	2	1	4	2	2	5	2								1			1	1
12	Guest Room		4	4	1	6	2	2	15	2								1			1	1
13	Guest Room		4	4	1	6	2	2	15	2								1			1	1
	Total-D	0	92	39	23	96	35	35	152	24	4	12	77	0	0	11	0	56	0	0	12	12
5th Level																						
1	Total Quantity					18			4		4			80								
	Total-E	0	0	0	0	18	0	0	4	0	4	0	0	80	0	0	0	0	0	0	0	0
Grand Total		0	332	95	171	362	115	87	516	48	22	50	427	80	15	50	0	162	0	0	24	24
Load Per Unit		100	100	200	200	1000	10	12	15	15	10	20	36	150	35	6	35	50	50	50	20	50
Total Load		0	33200	19000	34200	362000	1150	1044	7740	720	220	1000	15372	12000	525	300	0	8100	0	0	480	1200

IN W 4,98,251.00

IN KW 498.25

A. Light + Fan Load :Consider Diversity Factor @ 80%

84.05 KW

67.24 KW

$$\text{Load (in Amps): } \frac{P =}{\sqrt{3}V\cos\Phi}$$

112.07 Amp.

B. Plug & Power Plug Load :Consider Diversity Factor @ 40%

414.20 KW

207.10 KW

$$\text{Load (in Amps): } \frac{P =}{\sqrt{3}V\cos\Phi}$$

345.19 Amp.

C. HVAC Load :Consider Diversity Factor @ 80%

300.00 KW

240.00 KW

$$\text{Load (in Amps): } \frac{P =}{\sqrt{3}V\cos\Phi}$$

400.02 Amp.

D. Lift Load :Consider Diversity Factor @ 100%

45.00 KW

45.00 KW

$$\text{Load (in Amps): } \frac{P =}{\sqrt{3}V\cos\Phi}$$

75.00 Amp.

Total Load (In kW) :

559.34 KW

Total Load (In kVA) :

699.18 For 1 Block



**Project - Proposed Construction of International Cricket Stadium at Patna.**

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	25A Plug Point Separate On Raw Power	25A Plug Point Separate On UPS	15A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	10W LED Bulk Head	20W LED Batten	36W 606x600 LED Panel	Decorative Pendant LED for Double Height	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	Call Bell
1	Entry-1 & 2								6										
2	Boys Dining		8	1		8	3	2			20				16		4		
3	Girls Dining		8	1		8	3	2			20				16		4		
4	Staff Dining		4	1		4					10				8		2		
5	Pantry		2			2					4				2				
6	Kitchen					8					4						2		
7	Wash & Store Area		6			6	1				11						1		
	Total	0	36	3	0	36	7	4	6	0	69	0	0	0	42	0	15	0	0
	Grand Total	0	36	3	0	36	7	4	6	0	69	0	0	0	42	0	15	0	0
	Load Per Unit	100	100	200	200	1000	10	12	15	10	20	36	36	6	35	50	50	50	50
	Total Load	0	3600	600	0	36000	70	48	90	0	1380	0	0	0	1470	0	750	0	0

		IN W	44,008.00
		IN KW	44.01
A.	<u>Light + Fan Load :</u>	3.81 KW	
	<u>Consider Diversity Factor @ 80%</u>	3.05 KW	
	<u>Load (in Amps) :</u>	$\frac{P =}{\sqrt{3}V\cos\phi}$	5.08 Amp.
B.	<u>Plug &amp; Power Plug Load :</u>	40.20 KW	
	<u>Consider Diversity Factor @ 50%</u>	20.10 KW	
	<u>Load (in Amps) :</u>	$\frac{P =}{\sqrt{3}V\cos\phi}$	33.50 Amp.
	<u>Total Load (In kW) :</u>	23.15 KW	
	<u>Total Load (In kVA) :</u>	28.93	For 1 Block

## L+P Load Schedule

Project - Proposed Construction of International Cricket Stadium at Patna.

Name of Building- Hostel

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2.5A Plug Point Separate On Raw Power	2.5A Plug Point Separate On UPS	1.5A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	Decorative Side Lamp LED	10W LED Bulk Head	20W LED Batten	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	Call Bell
<b>Ground Floor</b>																	
1	Entrance								2								
2	Entrance Lobby										6		4				
1	Corridor Area								12								
4	Handicap Room		1	1		1	1	1			5		3		1		
5	Lift & Lift Lobby					1			1	1							
6	Staircase										2						
7	Sick Room		3			1					3		2				
8	Warden Room		5	2		5	1	1			6		3		1		
9	Lift & Lift Lobby					1			1	1							
10	Staircase										2						
11	Store keeper	2				2	1	1			4		2		1		
12	Dining Area	6				6					10		8		3		
13	Pantry	6				6					4				2		
14	Kitchen	8				8					4				2		
15	Utility	1				1					2						
16	Toilet	3				2	5	3	2						3		
<b>Total-A (Ground Floor)</b>		<b>25</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>34</b>	<b>8</b>	<b>6</b>	<b>18</b>	<b>2</b>	<b>48</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>
<b>First Floor</b>																	
1	Corridor Area								12								
2	Lift & Lift Lobby					1			1	1							
3	Staircase										2						
4	Lift & Lift Lobby					1			1	1							
5	Staircase										2						
6	Common Room		4	1		4					6		4				
7	Room		4			1			1		4		2				
8	Room		4			1			1		4		2				
9	Room		4			1			1		4		2				
10	Room		4			1			1		4		2				
11	Room		4			1			1		4		2				
12	Room		4			1			1		4		2				
13	Room		4			1			1		4		2				
14	Room		4			1			1		4		2				
15	Room		4			1			1		4		2				
16	Room		4			1			1		4		2				
17	Room		4			1			1		4		2				
18	Room		4			1			1		4		2				
<b>Total-B (First Floor)</b>		<b>0</b>	<b>52</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>2</b>	<b>58</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Second Floor</b>																	
1	Corridor Area								12								
2	Lift & Lift Lobby					1			1	1							
3	Staircase										2						
4	Lift & Lift Lobby					1			1	1							
5	Staircase										2						
6	Common Room		4	1		4					6		4				0
7	Room		4			1			1		4		2				
8	Room		4			1			1		4		2				
9	Room		4			1			1		4		2				
10	Room		4			1			1		4		2				0
11	Room		4			1			1		4		2				
12	Room		4			1			1		4		2				
13	Room		4			1			1		4		2				
14	Room		4			1			1		4		2				1
15	Room		4			1			1		4		2				1
16	Room		4			1			1		4		2				1
17	Room		4			1			1		4		2				1
18	Room		4			1			1		4		2				1
19	Room		4			1			1		4		2				1
20	Room		4			1			1		4		2				1
<b>Total-C (Second Floor)</b>		<b>0</b>	<b>60</b>	<b>1</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>2</b>	<b>66</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Third Floor</b>																	
1	Corridor Area								12								1
2	Lift & Lift Lobby					1			1	1							1
3	Staircase										2						12
4	Lift & Lift Lobby					1			1	1							
5	Staircase										2						
6	Common Room		4	1		4					6		4				
7	Room		4			1			1		4		2				1
8	Room		4			1			1		4		2				1
9	Room		4			1			1		4		2				1
10	Room		4			1			1		4		2				1
11	Room		4			1			1		4		2				1
12	Room		4			1			1		4		2				1
13	Room		4			1			1		4		2				1
14	Room		4			1			1		4		2				1
15	Room		4			1			1		4		2				1
16	Room		4			1			1		4		2				
17	Room		4			1			1		4		2				
18	Room		4			1			1		4		2				
19	Room		4			1			1		4		2				
20	Room		4			1			1		4		2				
<b>Total-D (Third Floor)</b>		<b>0</b>	<b>60</b>	<b>1</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>2</b>	<b>66</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Fourth Floor</b>																	
1	Corridor Area								12								
2	Lift & Lift Lobby					1			1	1							
3	Staircase										2						
4	Lift & Lift Lobby					1			1	1							
5	Staircase										2						
6	Common Room		4	1		4					6		4				
7	Room		4			1			1		4		2				
8	Room		4			1			1		4		2				
9	Room		4			1			1		4		2				
10	Room		4			1			1		4		2				
11	Room		4			1			1		4		2				
12	Room		4			1			1		4		2				
13	Room		4			1			1		4		2				
14	Room		4			1			1		4		2				
15	Room		4			1			1		4		2				
16	Room		4			1			1		4		2				
17	Room		4			1			1		4		2				
18	Room		4			1			1		4		2				
19	Room		4			1			1		4		2				
20	Room		4			1			1		4		2				
<b>Total-E (Fourth Floor)</b>		<b>0</b>	<b>60</b>	<b>1</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>2</b>	<b>66</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	

																	1		
	<b>Terrace Floor</b>																	1	
1	Open Terrace				0				4								1		
2	Staircase Lift Lobby & Lift Well-1				1				1	4							1		
3	Staircase Lift Lobby & Lift Well-2				1				1	4							12		
	<b>Total-F (Terrace)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>		
	<b>Grand Total</b>	<b>25</b>	<b>241</b>	<b>7</b>	<b>0</b>	<b>114</b>	<b>8</b>	<b>6</b>	<b>128</b>	<b>16</b>	<b>312</b>	<b>0</b>	<b>146</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>15</b>		
	<b>Load Per Unit</b>	<b>100</b>	<b>100</b>	<b>200</b>	<b>200</b>	<b>1000</b>	<b>10</b>	<b>12</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>20</b>	<b>35</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>		
	<b>Total Load</b>	<b>2500</b>	<b>24100</b>	<b>1400</b>	<b>0</b>	<b>114000</b>	<b>80</b>	<b>72</b>	<b>1920</b>	<b>240</b>	<b>3120</b>	<b>0</b>	<b>5110</b>	<b>0</b>	<b>650</b>	<b>0</b>	<b>750</b>		
																		IN W	1,53,942.00
																		IN KW	153.94
A.	<b><u>Light + Fan Load :</u></b>																	11.94 KW	
	<b><u>Consider Diversity Factor @ 80%</u></b>																	9.55 KW	
	<b><u>Load (in Amps) :</u></b>	$\frac{P =}{\sqrt{3}VICos\Phi}$															15.92 Amp.		
B.	<b><u>Plug &amp; Power Plug Load :</u></b>																	142.00 KW	
	<b><u>Consider Diversity Factor @ 40%</u></b>																	71.00 KW	
	<b><u>Load (in Amps) :</u></b>	$\frac{P =}{\sqrt{3}VICos\Phi}$															118.34 Amp.		
C.	<b><u>HVAC Load :</u></b>																	6.00 KW	
	<b><u>Consider Diversity Factor @ 100%</u></b>																	6.00 KW	
	<b><u>Load (in Amps) :</u></b>	$\frac{P =}{\sqrt{3}VICos\Phi}$															10.00 Amp.		
D.	<b><u>Lift Load :</u></b>																	20.00 KW	
	<b><u>Consider Diversity Factor @ 100%</u></b>																	20.00 KW	
	<b><u>Load (in Amps) :</u></b>	$\frac{P =}{\sqrt{3}VICos\Phi}$															33.34 Amp.		
	<b><u>Total Load (In kW) :</u></b>																	106.55 KW	
	<b><u>Total Load (In kVA) :</u></b>																	133.19 For 1 Block	

Name of Building- Multilevel Car Parking

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2x5A Plug Point Separate On Raw Power	2x5A Plug Point Separate On UPS	15A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	10W LED Bulk Head	20W LED Batten	36W 600x600 LED Panel	Decorative Pendant LED for Double Height	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	Call Bell
	<b><u>Basement</u></b>																		
1	Parking Area					54					765								
2	Staircase Lift Lobby & Lift Well-1					9			9	9									
3	Staircase Lift Lobby & Lift Well-2					9			9	9									
	Total-A	0	0	0	0	72	0	0	18	18	765	0	0	0	0	0	0	0	0
	Grand Total	0	0	0	0	72	0	0	18	18	765	0	0	0	0	0	0	0	0
	Load Per Unit	100	100	200	200	1000	10	12	15	10	20	36	30	20	12	40	35	35	50
	Total Load	0	0	0	0	72000	0	0	270	180	15300	0	0	0	0	0	0	0	0

	IN W	87,750.00
	IN KW	87.75
A. <u>Light + Fan Load (in Watt) :</u>	15.75	<u>KW</u>
<u>Consider Diversity Factor @ 80%</u>	12.60	<u>KW</u>
<u>Load (in Amps) :</u>	21.00	<u>Amp.</u>
		$\frac{P = \sqrt{3}VI}{\cos\Phi}$
B. <u>Plug &amp; Power Plug Load (in Watt) :</u>	72.00	<u>KW</u>
<u>Consider Diversity Factor @ 35%</u>	25.20	<u>KW</u>
<u>Load (in Amps) :</u>	42.00	<u>Amp.</u>
		$\frac{P = \sqrt{3}VI}{\cos\Phi}$
<u>Total Load (In kW) :</u>	37.80	
<u>Total Load (In kVA) :</u>	47.25	For 1 Block

L+P Load Schedule

Project - Proposed Construction of International Cricket Stadium at Patna.

Name of Building- Stands Area

S.No	Location	5A Plug Point On Board	5A Plug Point Separate	2.5A Plug Point Separate On Raw Power	2.5A Plug Point Separate On UPS	1.5A Power Point	10W LED Down Light	12W LED Mirror Light	15W LED Down Light	Decorative Side Lamp LED	10W LED Bulk Head	20W LED Batten	36W 600x600 LED Panel	150W LED Flood Light	Decorative Pendant LED for Double Height	Occupancy Sensor	Ceiling Fan 1200mm	Wall Fan	Exhaust Fan 300mm	Exhaust Fan 250mm	DND & NMR & Key Tag	Call Bell
	<b>1st Level</b>																					
1	Total Quantity		256		20	304	72	60	188		8	28	384			18	256					
	Total-A	0	256	0	20	304	72	60	188	0	8	28	384	0	0	18	256	0	0	0	0	0
	<b>2nd Level</b>																					
1	Total Quantity		336		224	336	56	56	150		8	28	392	60		64	224					
	Total-B	0	336	0	224	336	56	56	150	0	8	28	392	60	0	64	224	0	0	0	0	0
	<b>3rd Level</b>																					
1	Total Quantity		24			24			16		8	20		60		64						
	Total-C	0	24	0	0	24	0	0	16	0	8	20	0	60	0	64	0	0	0	0	0	0
	<b>4th Level</b>																					
1	Total Quantity		24			24			16		8	20		60		64						
	Total-D	0	24	0	0	24	0	0	16	0	8	20	0	60	0	64	0	0	0	0	0	0
	Grand Total	0	640	0	244	688	128	116	370	0	32	96	776	180	0	210	480	0	0	0	0	0
	Load Per Unit	100	100	200	200	1000	10	12	15	15	10	20	36	150	35	6	35	50	50	50	20	50
	Total Load	0	64000	0	48800	688000	1280	1392	5550	0	320	1920	27936	27000	0	1260	16800	0	0	0	0	0

IN W 884258

IN KW 884.258

A. **Light + Fan Load :**

132.26 KW

**Consider Diversity Factor @ 80%**

105.81 KW

**Load (in Amps) :**

$$\frac{P}{\sqrt{3}V\cos\phi}$$

176.35 Amp.

B. **Plug & Power Plug Load :**

752.00 KW

**Consider Diversity Factor @ 40%**

376.00 KW

**Load (in Amps) :**

$$\frac{P}{\sqrt{3}V\cos\phi}$$

626.70 Amp.

C. **HVAC Load :**

350.00 KW

**Consider Diversity Factor @ 80%**

280.00 KW

**Load (in Amps) :**

$$\frac{P}{\sqrt{3}V\cos\phi}$$

466.69 Amp.

D. **Lift Load :**

60.00 KW

**Consider Diversity Factor @ 100%**

60.00 KW

**Load (in Amps) :**

$$\frac{P}{\sqrt{3}V\cos\phi}$$

100.01 Amp.

**Total Load (In kW) :**

821.81 KW

**Total Load (In kVA) :**

1,027.26 For 1 Block

**Project - Proposed Construction of International Cricket Stadium at Patna.**

**COMMON SERVICES LOADS**

SL. NO.	DESCRIPTIONS	CONNECTED LOAD (kW)	DEMAND FACTOR	DEMAND LOAD (kW)
1	HOTEL BLOCK	423.60	0.80	338.88
2	SOUTH PAVILLIAN	667.66	0.80	534.12
3	NORTH PAVILLIAN	559.34	0.80	447.47
4	DINNING HALL	23.15	1.00	23.15
5	BOYS HOSTEL	106.55	1.00	106.55
6	GIRLS HOSTEL	106.55	1.00	106.55
7	MLCP L+P LOAD	37.80	1.00	37.80
8	STANDS L+P LOAD	821.81	0.80	657.45
9	SERVICES BLOCK L+P LOAD	5.00	1.00	5.00
10	EV Charger 3.3KW (15NOS. X3.3KW)	49.50	0.90	44.55
11	EV Charger 7.5KW (35NOS. X7.5KW)	210.00	0.90	189.00
12	SERVER ROOM LOAD	60.00	1.00	60.00
13	PLUMBING LOAD			
a.	Plumbing Load	25.00	0.80	20.00
14	EXTERNAL AND FACADE LIGHTING	20.00	1.00	20.00
15	STP	100.00	0.80	80.00
16	FIRE FIGHTING		15.00	15.00
17	SPORTS LIGHTING	540.00	1.00	540.00
18	EXTERNAL & FAÇADE LIGHTING	340.00	0.80	272.00
	<b>TOTAL</b>			<b>3498.00</b>

MAX. DEMAND LOAD = 3498.00 kW

MAX. DEMAND LOAD = 3498.00 kW

**Project - Proposed Construction of International Cricket Stadium at Patna.**

**PROPOSED SELECTION OF CSS**

**TRANSFORMER SELECTION**

MAX. DEMAND LOAD	-	3498.00 kW
Consider overall diversity as 80%		2798.40
POWER FACTOR	-	0.90
TOTAL DEMAND LOAD	-	3109.33 kVA
TRANSFORMER LOADING	-	80%
TOTAL DEMAND LOAD	-	<b>3886.67 kVA</b>

**SAY - 3887.00 kVA**

**HENCE SELECTED TRANSFORMER - 3 x 2000 KVA (2W+1S)  
11kV/0.433kV PACKAGE SUBSTATION  
(WITH OIL TYPE TRANSFORMER)**

**Project - Proposed Construction of International Cricket Stadium at Patna.**

**DG SET SELECTION**

SL. NO.	DESCRIPTIONS	CONNECTED LOAD (kW)	DEMAND FACTOR	DEMAND LOAD (kW)
1	HOTEL BLOCK	423.60	0.80	338.88
2	SOUTH PAVILLIAN	667.66	0.80	534.12
3	NORTH PAVILLIAN	559.34	0.80	447.47
4	DINNING HALL LIGHTING LOAD	5.00	1.00	5.00
5	BOYS HOSTEL LIGHTING LOAD	10.00	1.00	10.00
6	GIRLS HOSTEL LIGHTING LOAD	10.00	1.00	10.00
7	MLCP L+P LOAD LIGHTING LOAD	12.00	1.00	12.00
8	STANDS L+P LOAD	821.81	0.80	657.45
9	SERVICES BLOCK L+P LOAD	5.00	1.00	5.00
10	SERVER ROOM LOAD	60.00	1.00	60.00
11	PLUMBING LOAD			
a.	Plumbing Load	25.00	0.80	20.00
12	EXTERNAL AND FACADE LIGHTING	20.00	1.00	20.00
13	STP	100.00	0.80	80.00
14	FIRE FIGHTING		15.00	15.00
15	SPORTS LIGHTING	540.00	1.00	540.00
16	EXTERNAL & FAÇADE LIGHTING	340.00	0.80	272.00
	<b>TOTAL</b>			<b>3027.00</b>

**DG SET SELECTION**

Max. Demand Load	-	3027.00 kW
Consider overall diversity as 75%		2270.25 kW
POWER FACTOR	-	0.80
TOTAL DEMAND LOAD	-	2837.81 kVA
DG SET LOADING	-	80%
TOTAL DEMAND LOAD	-	<b>3547.27 kVA</b>
SAY -		<b>3547.00 kVA</b>
HENCE SELECTED DG SET	-	<b>2 x 400 + 4 x 750 KVA</b>
		<b>RADIATOR COOLED</b>





**संख्या:-178/2023/आई411903/901-23-5-2023-27(सा0)/2022**

प्रेषक,

दुर्गा शंकर मिश्र,  
मुख्य सचिव,  
उत्तर प्रदेश शासन।

सेवा में,

समस्त अपर मुख्य सचिव/प्रमुख सचिव/सचिव,  
उत्तर प्रदेश शासन।

लोक निर्माण अनुभाग-5

लखनऊ: दिनांक: 20 अक्टूबर, 2023

विषय:-विभिन्न विभागों के भवनों के हस्तान्तरण के सम्बन्ध में मानक संचालन प्रक्रिया (SOP) का निर्धारण।

महोदय,

विभिन्न प्रशासकीय विभागों के प्रदेश में बन रहे भवनों का कार्यदायी संस्था द्वारा निर्माण पूर्ण होने के उपरान्त उनके हस्तान्तरण में प्रायः विलम्ब हो जा रहा है। कार्यदायी संस्था को निर्माण कार्य पूर्ण होने के उपरान्त भी अनावश्यक रूप से भवन की देख-रेख करनी पड़ती है तथा भवन का उपयोग समय से सुनिश्चित नहीं हो पाता है। ऐसी स्थिति भी प्रकाश में आयी है कि प्रशासकीय विभाग द्वारा भवन का उपयोग प्रारम्भ कर दिया जाता है परन्तु औपचारिक हस्तान्तरण नहीं किया जाता है एवं इस दौरान कार्यदायी संस्था से अनुरक्षण कार्यों की अपेक्षा की जाती है। दोनों स्थितियों में कार्यदायी संस्था पर दबाव रहता है तथा प्रशासकीय विभाग में स्वामित्व की भावना नहीं आती है जो कि स्वस्थ परम्परा नहीं है।

2- भवन के हस्तान्तरण होने के सामान्यतः एक वर्ष बाद भवन पर अनुरक्षण की धनराशि का आवंटन किया जा सकता है परन्तु हस्तान्तरण न होने के कारण अनुरक्षण की प्रक्रिया प्रारम्भ होने में भी विलम्ब होता है। उपरोक्त के दृष्टिगत सम्यक विचारोपरान्त भवनों के हस्तान्तरण के सम्बन्ध में मानक संचालन प्रक्रिया निम्नानुसार निर्धारित की जाती है:-

**परिदृश्य-1:परियोजना जिसमें एक भवन का निर्माण प्रस्तावित है।**

- (क) कार्यदायी संस्था द्वारा भवन/परियोजना का निर्माण कार्य पूर्ण होने की प्रस्तावित तिथि से क्रमशः 03 माह एवं 01 माह पूर्व प्रशासकीय विभाग को लिखित रूप से सूचित किया जायेगा, तदनुसार विभाग भवन/परियोजना को उपयोग में लाने की पूर्ण कार्ययोजना तैयार करेगा।
- (ख) भवन/परियोजना का निर्माण कार्य पूर्ण होने पर कार्यदायी संस्था द्वारा कार्य पूर्ण होने की सूचना के साथ प्राविधानित सभी मदों की पूर्ण इन्वेन्ट्री के साथ अनुरक्षण सम्बन्धी मानचित्र इत्यादि (संलग्नक के अनुसार) संलग्न करते हुए प्रशासकीय विभाग को भवन/परियोजना हस्तगत करने का अनुरोध पत्र भेजा जायेगा।
- (ग) प्रशासकीय विभाग द्वारा किये गये अनुरोध पर वांछित कार्यवाही करते हुए 45 दिवस में भवन/परियोजना को हस्तगत किया जायेगा।
- (घ) यदि विभाग स्तर पर भवन/परियोजना के निर्माण में कोई कमियां पाई जाती हैं तो समस्त कमियां एक बार में कार्यदायी संस्था को इंगित कर दी जायेंगी। परन्तु यदि लिखित रूप से 45 दिवस में कोई कमी इंगित नहीं की जाती है तो भवन/परियोजना को स्वतः हस्तगत माना जायेगा एवं तदनुसार कार्यदायी संस्था द्वारा प्रशासकीय विभाग को पत्र भेजा जायेगा।
- (ङ) यदि प्रशासकीय विभाग द्वारा कोई कमी इंगित की जाती है तो कार्यदायी संस्था द्वारा उसका निराकरण कराते हुए प्रशासकीय विभाग को हस्तगत करने हेतु पुनः लिखित अनुरोध किया जायेगा। प्रशासकीय विभाग द्वारा पत्र प्राप्त होने के 30 दिवस के अन्दर सन्तुष्ट होते हुए भवन/परियोजना को हस्तगत किया जायेगा।

- (च) यदि 30 दिवस में प्रशासकीय विभाग द्वारा कोई कार्यवाही नहीं की जाती है तो भवन/परियोजना को हस्तगत माना जायेगा एवं तदनुसार कार्यदायी संस्था द्वारा प्रशासकीय विभाग को पत्र भेजा जायेगा।

**परिदृश्य-2 परियोजना जिसमें एक से अधिक चरणों में हस्तान्तरण प्रस्तावित है:-**

- (क) भवन निर्माण से सम्बन्धित ऐसी परियोजना जिसका निर्माण कार्य विभिन्न चरणों में पूर्ण किया जाना हो, में स्वीकृति के उपरान्त प्रशासकीय विभाग की ओर से विभिन्न भवनों की प्राथमिकता तय की जाये। तदोपरान्त जिन भवनों का कार्य पूर्ण हो जाये उनका चरणबद्ध हस्तान्तरण परिदृश्य-1 में परिभाषित व्यवस्था के अनुसार किया जाना सुनिश्चित किया जाये। ऐसी स्थिति में प्रशासकीय विभाग कार्यदायी संस्था को सम्बन्धित भवनों के कार्य पूर्ण प्रमाण-पत्र चरणबद्ध रूप से देना सुनिश्चित करेगा।
- (ख) ऐसी स्थिति में जबकि प्रशासकीय विभाग की ओर से धनराशि प्रदान किये जाने में विलम्ब होने के कारण परियोजना की प्रगति बाधित हो रही हो तो जो भवन पूर्ण हो जाएं उन्हें परिदृश्य-1 में निर्धारित व्यवस्था के अनुरूप हस्तगत कर लिया जाए। अपूर्ण/अवशेष भवनों हेतु प्रशासकीय विभाग द्वारा ससमय धनराशि की व्यवस्था सुनिश्चित कराई जाये।

**उल्लेखनीय बिन्दु:-**

1. भवन/परियोजना के हस्तगत होने के पूर्व कार्यदायी संस्था द्वारा प्रशासकीय विभाग को भवन/परियोजना का कब्जा नहीं दिया जायेगा।  
यदि भवन/परियोजना के हस्तगत होने के पूर्व किसी अपरिहार्य परिस्थिति में प्रशासकीय विभाग द्वारा कब्जा ले लिया जाता है एवं 45 दिन में भवन/परियोजना में कोई कमी इंगित नहीं की जाती है तो भवन/परियोजना को हस्तगत माना जायेगा।
2. भवन/परियोजना के हस्तगत होने के उपरान्त भी अनुबंध में निर्धारित डिफेक्ट लायबिलिटी के तहत समस्या निवारण का दायित्व कार्यदायी संस्था का होगा।
3. प्रत्येक जनपद में मुख्य विकास अधिकारी की अध्यक्षता में एक स्थाई भवन हस्तांतरण समिति गठित की जायेगी जिसके सदस्य निम्नवत होंगे:-
  1. अधिशासी अभियंता, प्रान्तीय खण्ड, लोक निर्माण विभाग(संयोजक)
  2. अधिशासी अभियंता, सिंचाई विभाग
  3. अधिशासी अभियंता, उOप्रO पावर कारपोरेशन
  4. जिस प्रशासकीय विभाग का भवन है उसका वरिष्ठतम जिला स्तरीय अधिकारीउपरोक्त समिति द्वारा संबंधित भवन/भवनों का निरीक्षण करते हुये अपनी आख्य जिलाधिकारी को उपलब्ध कराई जायेगी। किसी असाधारण स्थिति में मण्डलायुक्त को प्रकरण संदर्भित किया जायेगा एवं उनके दिशा-निर्देशों के क्रम में वांछित कार्यवाही कराई जायेगी। इस स्थिति में मण्डलायुक्त द्वारा लिया गया निर्णय अंतिम होगा।
4. ऐसा भवन/परियोजना जो पूर्व से निर्मित हैं परन्तु उसका हस्तान्तरण वर्तमान तक नहीं हो सका है, उसके सम्बन्ध में उपरोक्तानुसार निर्धारित व्यवस्था के अनुरूप समयबद्ध कार्यवाही सुनिश्चित की जायेगी।
5. भवन/परियोजना हस्तगत होने की तिथि के उपरान्त भवन/परियोजना का संचालन एवं अनुरक्षण प्रशासकीय विभाग द्वारा किया जायेगा। भवन/परियोजना हस्तगत होने की तिथि के पूर्व अथवा बाद में प्रशासकीय विभाग के अधिकारियों/कर्मचारियों को परियोजना में प्रयुक्त होने वाले उपकरणों के संचालन एवं अनुरक्षण का प्रशिक्षण प्रदान करने की जिम्मेदारी कार्यदायी संस्था की होगी। यदि हस्तगत करते समय अनुबंध की शर्तों के अनुसार संचालन एवं अनुरक्षण संविदाकार के द्वारा किया जाना है तो अनुबन्धित समय अवधि तक संचालन एवं अनुरक्षण की जिम्मेदारी कार्यदायी संस्था की होगी।

6. कार्य के एकमुश्त/चरणबद्ध हस्तान्तरण पूर्ण होने के उपरान्त, कार्यदायी संस्था द्वारा समस्त आवश्यक प्रपत्र प्रशासकीय विभाग को प्रेषित किये जाने के उपरान्त, 02 माह में समस्त वित्तीय देनदारियां कार्यदायी संस्था को उपलब्ध कराने का दायित्व प्रशासकीय विभाग का होगा।

**संलग्नक:-**

1. कार्य पूर्ति प्रमाण-पत्र (संलग्नक 01)
2. भवन/परियोजना हस्तान्तरण के समय निरीक्षण जांच की चेक लिस्ट (संलग्नक 02)
3. डिफेक्ट लायबिलिटी पीरिएड की निरीक्षण जांच की चेक लिस्ट (संलग्नक 03)
4. हस्तान्तरण प्रमाण-पत्र (संलग्नक 04)
5. कार्यदायी संस्था द्वारा भवन/परियोजना से संबंधित सरकार/उपक्रम/निकाय/प्राधिकरण/ परिषद इत्यादि संबंधितों को देय समस्त देयकों/करों तथा उपकरणों का भुगतान कर दिया है, इस आशय का प्रमाण-पत्र भवन/परियोजना के हस्तान्तरण से पूर्व प्रशासकीय विभाग को प्रस्तुत किया जायेगा। (संलग्नक 05)
6. भवन/परियोजना निर्माण एवं अनुरक्षण से संबंधित समस्त मानचित्रों के दो सेट(दो प्रतियों में)
7. भवन/परियोजना हेतु सक्षम स्तर से प्राप्त किये गये एवं अनुमोदित/निर्गत अनापति प्रमाण पत्रों की सत्यापित प्रति/प्रतियां (जो लागू हों)-
  - अग्निशमन विभाग की अनापति
  - पर्यावरण विभाग की अनापति
  - भूगर्भ जल विभाग की अनापति
  - स्थानीय निकायों की अनापति
  - विद्युत सुरक्षा सम्बन्धी अनापति
  - अन्य कोई अनापति (यदि प्राप्त की गयी हो)

भवदीय  
दुर्गा शंकर मिश्र  
मुख्य सचिव

**संख्या-178/2023/आई411903/901(1)23-5-2023-तद्दिनांक**

- प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।
- 1- रजिस्ट्रार (इन्फ्रा), मा0 उच्च न्यायालय, इलाहाबाद/खण्डपीठ, लखनऊ।
  - 2- अपर मुख्य सचिव, श्री राज्यपाल, उत्तर प्रदेश शासन, लखनऊ।
  - 3- स्टाफ आफिसर, मुख्य सचिव, उत्तर प्रदेश शासन, लखनऊ।
  - 4- आयुक्त, औद्योगिक विकास विभाग/समाज कल्याण, उत्तर प्रदेश शासन।
  - 5- प्रमुख सचिव, विधान परिषद/विधान सभा सचिवालय, उत्तर प्रदेश ।
  - 6- समस्त मण्डलायुक्त/जिलाधिकारी, उत्तर प्रदेश ।
  - 7- समस्त विभागाध्यक्ष एवं प्रमुख कार्यालयाध्यक्ष उत्तर प्रदेश ।
  - 8- निदेशक, कोषागार, उत्तर प्रदेश, जवाहर भवन, लखनऊ।
  - 9- निदेशक, वित्तीय संख्यिकी निदेशालय, उत्तर प्रदेश, लखनऊ।
  - 10- वित्त नियंत्रक/मुख्य वित्त एवं लेखाधिकारी, लोक निर्माण विभाग/सिंचाई एवं जल संसाधन विभाग/ग्रामीण अभियन्त्रण विभाग/ग्रामीण जलापूर्ति एवं नमामि गंगे विभाग/ नगर विकास विभाग/लघु सिंचाई विभाग/भूगर्भ जल विभाग, उ०प्र०।
  - 11- संयुक्त निदेशक, राजकीय मुद्रणालय ऐशबाग, लखनऊ।
  - 12- सचिवालय के समस्त अनुभाग।

आज्ञा से,  
अजय चौहान  
प्रमुख सचिव

## कार्य पूर्ति प्रमाणपत्र

प्रमाणित किया जाता है कि (कार्य का नाम) ..... ब्लाक ..... जनपद ..... का भवन/परियोजना निर्माण कार्य उच्च गुणवत्ता के साथ दिनांक ..... को पूर्ण कराया जा चुका है इस कार्य हेतु उपलब्ध करायी गयी धनराशि रूपया ..... में से रूपया ..... का उपयोग भवन/परियोजना निर्माण पर किया गया है। यह निर्माण कार्य सम्बन्धित श्रेणी के भवन/परियोजना हेतु लोक निर्माण विभाग द्वारा अनुमन्य विशिष्टियों एवं मार्ग निर्देशिका में निर्धारित सामान्य विशिष्टियों के अनुसार पूर्ण किया गया है। भवन/परियोजना की इन्वेन्ट्री प्रमाण पत्र के साथ संलग्न है।

हस्ताक्षर .....	हस्ताक्षर .....
पूरा नाम .....	पूरा नाम .....
पद (अवर अभियन्ता) .....	पद (सहाय अभियन्ता) .....
कार्यदायी संस्था .....	कार्यदायी संस्था .....

संलग्न:-इन्वेन्ट्री	हस्ताक्षर .....
	पूरा नाम .....
दिनांक .....	पद अधिशासी अभियन्ता , परियोजना प्रबन्धक)
	.....
	कार्यदायी संस्था .....

## भवन/परियोजना हस्तान्तरण के समय निरीक्षण जांच की चेक लिस्ट

भवन/परियोजना का नाम .....

कार्यदायी संस्था .....

निरीक्षण तिथि .....

	निरीक्षण का विवरण	विवरण के प्रकार		प्रतिक्रिया	कथन
		स्थिति	प्रकृति		
भाग-प्रथम					
नवनिर्मित भवन/परियोजना को स्वीकार करने से पूर्व का निरीक्षण					
अ- भीतरी भाग					
1- दीवारें					
1	क्या दीवारें सादुल (प्लम्ब) में हैं (अगर नहीं तो उसकी स्थिति प्रकृति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
2	क्या दीवारें पूर्ण संरेखण(एलाइनमेंट) में हैं (अगर नहीं तो उसकी स्थिति प्रकृति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
3	क्या दीवारों में कोई दरार तो नहीं है (अगर हां तो उसकी स्थिति प्रकृति तो ऊर्ध्वाधर/क्षैतिक/तिरछी और उन पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
4	दीवारों में कोई नमी/रिसाव तो नहीं है (अगर हां तो दीवारों की स्थिति परिणाम और उन पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
5	क्या सभी दीवारों का निरीक्षण कर लिया गया है	हाँ/नहीं			
2- फर्श					
1	फर्श में दरारें तो नहीं हैं (अगर हां तो उनकी स्थिति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
2	फर्श कहीं से धंसी हुई तो नहीं है (अगर हां तो उनकी स्थिति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
3	क्या फर्श को उचित ढाल में रखा गया है (अगर नहीं तो फर्श की स्थिति और उस पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
4	क्या फर्श पूरी तरह साफ/पॉलिश किया हुआ है (अगर नहीं तो उसकी स्थिति प्रकृति और उस पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
5	क्या क्लेडिंग/डैडो में कोई दरार तो नहीं है	हाँ/नहीं			

	(अगर हां तो उनकी स्थिति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)				
6	क्या सभी फर्श एवं डैडो का निरीक्षण कर लिया गया है	हाँ/नहीं			
<b>3- छतें</b>					
1	क्या छतों की ऊपरी अथवा निचली सतह में दरारें तो नहीं हैं (अगर हां तो उनकी स्थिति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
2	क्या छत पर कहीं रिसाव/लीकेज तो नहीं है (अगर हां तो उनकी स्थिति और उनके बारे में की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
3	क्या नमी रोधक कार्य किया गया है एवं ढाल उचित प्रकार से रखी गयी है (अगर नहीं तो उसकी स्थिति प्रकृति और उस पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
4	क्या बरसाती पानी के निकासी पाइप रिसाव/लीकेज मुक्त हैं (अगर नहीं तो उसकी स्थिति प्रकृति और उस पर की जाने वाली कार्यवाही का विवरण दें)	हाँ/नहीं			
<b>4- दरवाजे, खिड़कियां व रोशनदान</b>					
1	क्या सभी दरवाजे खिड़कियां और रोशनदान आसानीपूर्वक खुलते व बन्द होते हैं (अगर नहीं तो जिन दरवाजों व खिड़कियों को ठीक करना हो तो उनके स्थान व संख्या का विवरण दें)	हाँ/नहीं			
2	क्या सभी दरवाजे, खिड़कियों और रोशनदानों का रंगरोगन उचित तरीके से किया गया है (अगर नहीं तो उनकी स्थिति और रंगरोगन किये जाने वाले नगों की संख्या का विवरण दें)	हाँ/नहीं			
3	क्या सभी ताला व्यवस्थाएं, कब्जे, बोल्ट इत्यादि ठीक से काम करते हैं (अगर नहीं तो ठीक किये जाने वाले नगों की संख्या का विवरण दें)	हाँ/नहीं			
4	क्या दरवाजों के सभी शीशे साफ हैं तथा टूटे हुए नहीं हैं एवं ठीक ढंग से लगाये गये हैं (अगर नहीं तो बदले जाने वाले शीशों की संख्या व स्थितियों का विवरण दें)	हाँ/नहीं			
<b>5- समाप्ति कार्य</b>					
1	क्या सभी कमरों की पुताई/रंग/डिस्टैम्पर सही तरीके से किया गया है ? (यदि नहीं तो उनकी स्थिति और संख्या दिखायें)	हाँ/नहीं			

6- स्थापक सुविधाएं				
अलमारियों एवं शेल्फ				
1	क्या सभी आलमारियों के दरवाजे आसानीपूर्वक खुलते व बंद होते हैं (यदि नहीं तो जिन दरवाजों को ठीक कराना हो उनके स्थान एवं स्थिति का विवरण दें)	हाँ/नहीं		
2	क्या सभी कब्जे, ताला व्यवस्था टॉवर बोल्ट इत्यादि आसानीपूर्वक कार्य कर रहे हैं	हाँ/नहीं		
3	क्या सभी आलमारियों व शेल्फ का निरीक्षण कर लिया गया है	हाँ/नहीं		
7- जल आपूर्ति एवं सफाई सम्बन्धी				
1	क्या दीवारों के साथ लगे पाईप व्यवस्थित रूप से लगाये गये हैं तथा ढीले तो नहीं हैं (यदि हां तो ठीक किये जाने वाली पाईपों की स्थिति व संख्या का विवरण दें)	हाँ/नहीं		
2	क्या पाईप जोड़ों में कहीं पर कोई रिसाव/लीकेज तो नहीं है (यदि हां तो उनकी स्थिति, संख्या एवं सम्बन्धित कार्यवाही का विवरण दें)	हाँ/नहीं		
3	क्या टोटियां, वाल्व, स्नानागार, फव्वारे, वाशबेसिन, सिंक उचित तरीके से कार्य कर रहे हैं और उनमें कहीं अवरूद्धता/रिसाव/लीकेज तो नहीं है	हाँ/नहीं		
4	क्या शौचालय में लगी सभी सुविधाएं ठीक हैं (यदि नहीं तो ठीक किये जाने वाली स्थिति व संख्या का विवरण दें)	हाँ/नहीं		
5	क्या शौचालय में जलीय अवरूद्धता, फर्श से जल निकासी की नालियां उचित तरीके से कार्य कर रही हैं (यदि नहीं तो उनकी स्थिति, संख्या तथा उन पर जो कार्यवाही की जानी हो उसका विवरण दें)	हाँ/नहीं		
6	क्या सभी शौचालय, स्थान, वाशबेसिन और सिंक दरारों/टूटफूट से मुक्त हैं (यदि नहीं तो उनकी स्थिति और बदले जाने वाले नगों की संख्या का विवरण दें)	हाँ/नहीं		
8- विद्युत अन्वयुक्तियां (इन्वे )				
क्या निम्नलिखित बिजली उपकरण पूर्ण रूप से कार्य कर रहे हैं				
1	स्विच	हाँ/नहीं		
2	प्लग बिन्दु	हाँ/नहीं		
3	पंखे	हाँ/नहीं		
4	रेगुलेटर्स	हाँ/नहीं		

5	मीटर	हाँ/नहीं			
6	सभी प्रकार के पम्प, फायर फाइटिंग उपकरण	हाँ/नहीं			
7	सब स्टेशन/विद्युत पैनल	हाँ/नहीं			
8	डीजी सेट	हाँ/नहीं			
9	अन्य विद्युत उपकरण	हाँ/नहीं			
10	सीसी टीवी	हाँ/नहीं			
11	अन्य विद्युत सम्बन्धी कार्य	हाँ/नहीं			
12	लिफ्ट इत्यादि	हाँ/नहीं			
13	क्या फ्यूज, तार/ एम0 सी0 बी0 पूर्णतः ठीक है। दरारों/टूट फूट से मुक्त है	हाँ/नहीं			
(01 से 13 की मदें यदि नहीं तो ठीक किये जाने वाले तारों की स्थिति व संख्या आदि का विवरण दें)।					
14	क्या भूमिगत तार ठीक हैं (यदि नहीं तो उन पर जो कार्यवाही करना हो उसका विवरण दें)	हाँ/नहीं			
15	अर्थिंग का कार्य हुआ है अथवा नहीं	हाँ/नहीं			
16	वाह्य विद्युत संयोजन हुआ है अथवा नहीं	हाँ/नहीं			
<b>ख- भवन/परियोजना के बाह्य भाग से सम्बन्धित</b>					
1	क्या भवन के आसपास का मलबा इत्यादि हटाकर पूर्णतया समतल कर दी गयी है (यदि नहीं तो उसके बारे में जो कार्यवाही की जानी हो उसका विवरण दें)	हाँ/नहीं			
2	क्या सभी पहुंच सड़कें उचित तरीके से बनाई गयी है (यदि नहीं तो उसके बारे में जो कार्यवाही की जानी हो उसका विवरण दें)	हाँ/नहीं			
3	क्या चहारदीवारी व प्रवेश द्वार बनाया गया है	हाँ/नहीं			
4	क्या बाहरी सभी नालियां ठीक प्रकार से बनाई गयी हैं तथा अवरूद्ध तो नहीं हैं	हाँ/नहीं			
5	क्या सीढ़ियां व उनके पद बनाये गये हैं तथा उचित ढाल में हैं	हाँ/नहीं			
6	क्या भवन की बाह्य दीवारों का कोई कार्य रह तो नहीं गया	हाँ/नहीं			



भाग द्वितीय - डिफेक्ट लायबिलिटी पीरिएड की निरीक्षण जांच की चेक लिस्ट					
(प्रत्याभूति समय (डिफेक्ट लायबिलिटी पीरिएड) के समाप्त होने से पूर्व परन्तु वर्षा ऋतु के तुरन्त बाद किया जाने वाला निरीक्षण)					
<b>1- भवन/परियोजना</b>					
<b>क</b>	<b>क्या निम्नलिखित में कहीं कोई रिसाव/नमी/वृटि है</b>				
1	दीवारें	हाँ/नहीं			
2	फर्श	हाँ/नहीं			
3	छतें	हाँ/नहीं			
4	छतों का भीतरी भाग	हाँ/नहीं			
5	मुंडेर	हाँ/नहीं			
6	धूप रोधक छज्जे	हाँ/नहीं			
<b>ख</b>	<b>निम्नलिखित में कहीं रिसाव/सीलन तो नहीं है</b>				
1	बरसाती पानी के लिये लगाये गये पाईप	हाँ/नहीं			
2	भूमिगत मल निकासी पाईप	हाँ/नहीं			
<b>ग</b>	<b>क्या सभी नमी रोधक कार्य ठीक प्रकार से हैं</b>	हाँ/नहीं			
<b>घ</b>	<b>क्या निम्नलिखित संतोषपूर्वक कार्य कर रहे हैं</b>				
1	सैप्टिक टैंक	हाँ/नहीं			
2	सोकपिट	हाँ/नहीं			
3	वाह्य नालियां	हाँ/नहीं			
4	रेन वाटर हार्वेस्टिंग	हाँ/नहीं			
5	एस0टी0पी0/ई0टी0पी0/डब्लू0टी0पी0	हाँ/नहीं			

## हस्तान्तरण प्रमाण-पत्र

कार्यदायी संस्था के अधिशासी अभियन्ता, परियोजना प्रबन्धक द्वारा प्रस्तुत किये गये कार्य पूर्ति प्रमाण पत्र में ..... (कार्य का नाम) कार्य की कुल लागत रु0 ..... अंकित है। विस्तृत आगणन/कुर्सी क्षेत्रफल दरों पर गठित प्रारम्भिक आगणन के अनुसार कार्य पूर्ण है। कार्य पूर्ति प्रमाण पत्र के साथ प्राप्त इन्वेन्ट्री चेक कर ली गयी है तथा भवन/परियोजना हस्तान्तरण के समय नव निर्मित भवनों/परियोजना की जांच हेतु निरीक्षण सूची संलग्न है। भवन/परियोजना हस्तान्तरण हेतु संस्तुति की जाती है।

## अथवा

कार्यदायी संस्था के अधिशासी अभियन्ता, परियोजना प्रबन्धक द्वारा प्रस्तुत किये गये कार्य पूर्ति प्रमाण पत्र में ..... (कार्य का नाम) कार्य की कुल लागत रु0 ..... अंकित है। विस्तृत आगणन/कुर्सी क्षेत्रफल दरों पर गठित प्रारम्भिक आगणन के अनुसार निम्न मदों के कार्य साइट पर होने नहीं पाये गये हैं जो कि निर्माण एजेन्सी द्वारा पूर्ण किये जाने हैं:-

- 1- मद का नाम ..... रु0 .....
- 2- मद का नाम ..... रु0 .....

योग रु0 .....

- 3- प्राप्त कमियों की चेक लिस्ट संलग्न है:-

हस्ताक्षर .....	हस्ताक्षर .....
पूरा नाम .....	पूरा नाम .....
पद (अवर अभियन्ता अथवा प्रभारी अधिकारी).....	पद (सहायक अभियन्ता अथवा प्रभारी अधिकारी).....

## हस्तान्तरण हेतु सक्षम अधिकारी का प्रमाण-पत्र

दिनांक.....	हस्ताक्षर .....
	पूरा नाम .....
	पद .....

**देयक/कर/उपकर संबंधी प्रमाण-पत्र**

प्रमाणित किया जाता है कि भवन/परियोजना से संबंधित सरकार/उपक्रम/निकाय/ प्राधिकरण/ परिषद इत्यादि संबंधितों को देय समस्त देयकों/करों तथा उपकरणों का भुगतान किया जा चुका है।

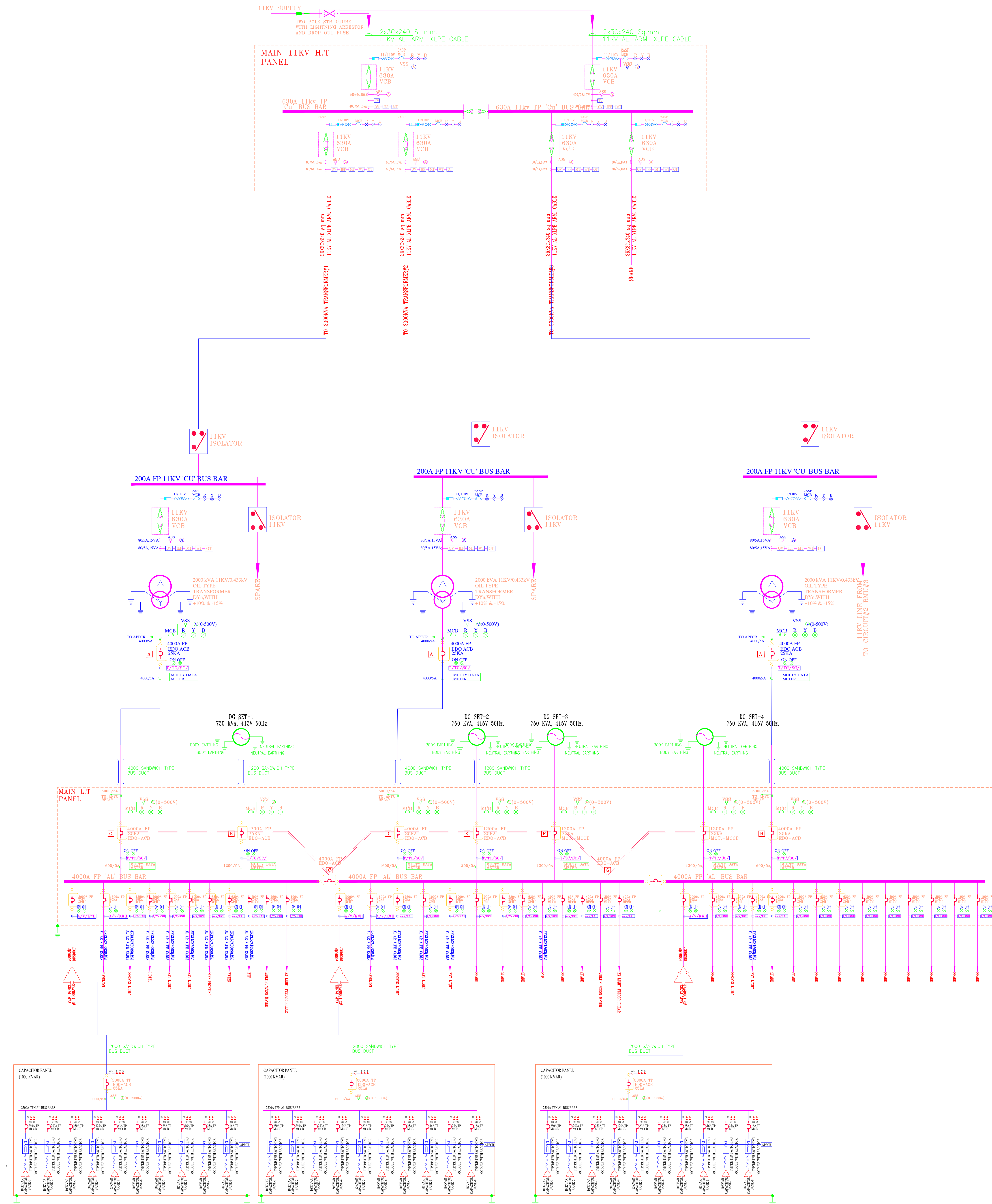
अधिकासी अभियंता/परियोजना

प्रबंधक,

कार्यदायी संस्था

**NOTES -**  
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PROJECT
REDEVELOPMENT OF MOIN-UL-HAQ CRICKET STADIUM AT PATNA, BIHAR

**OFFICE :** IIIrd FLOOR, LAXMI VARDAN COMMERCIAL  
COMPLEX AT PATRAKARPURAM CROSSING,  
GOMTI NAGAR, LUCKNOW, U.P. INDIA

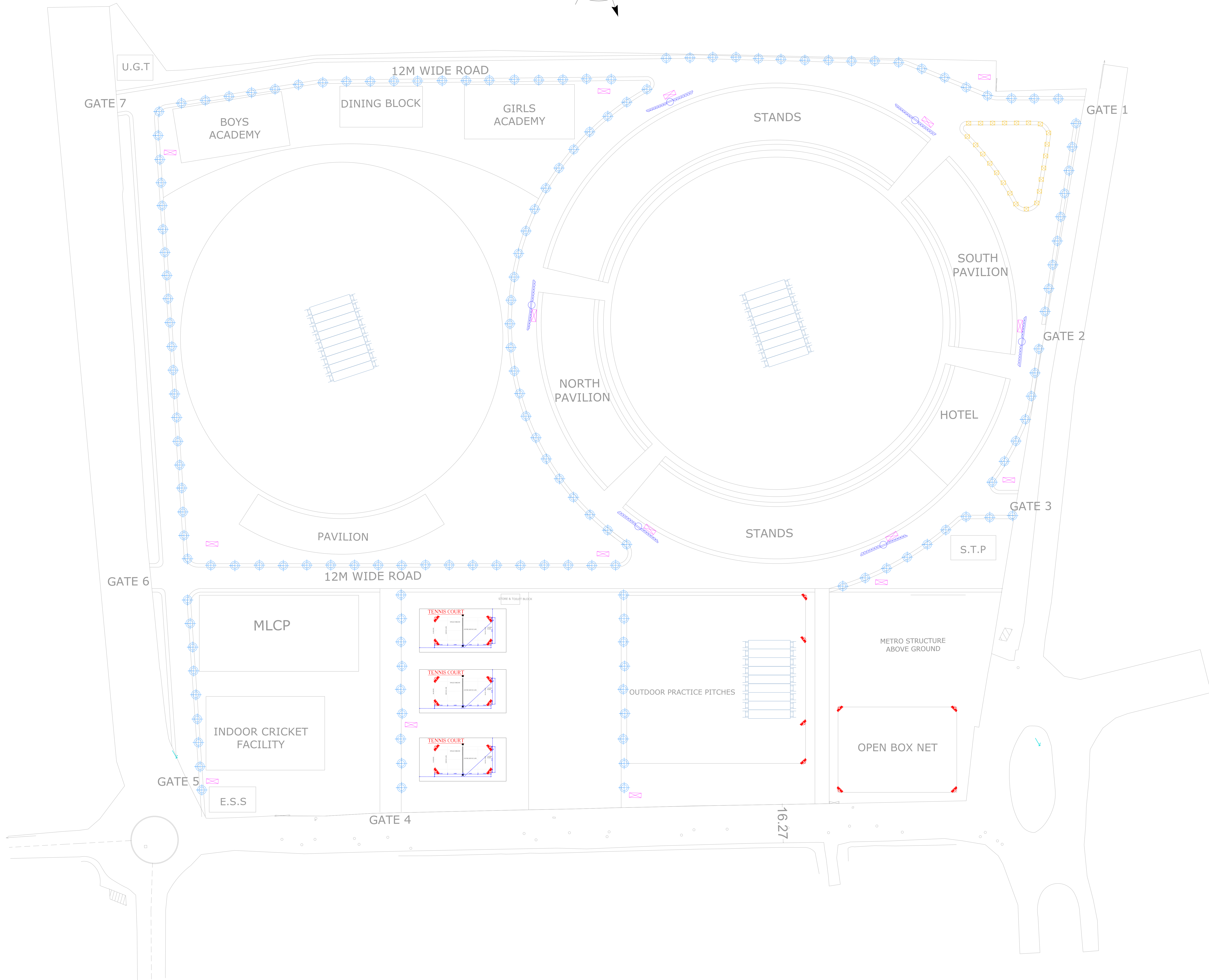
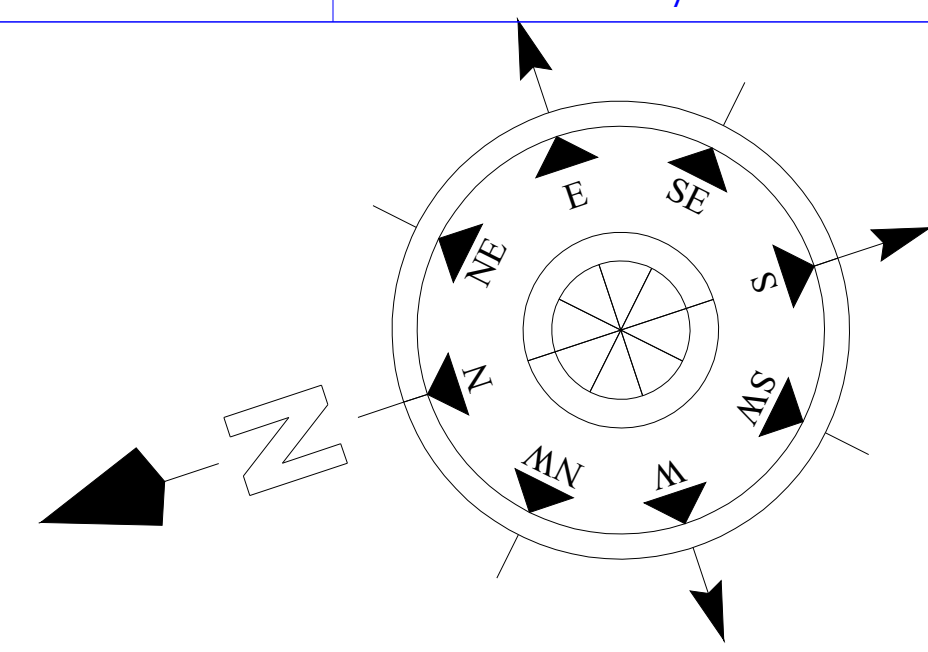
**PHONE** : 0522-2394123,2393123,4044123 fax 0522-2393126

<div style="text-align: center;"> <h1>SINGLE LINE DIARAM</h1> </div>	SCALE - 1:1500		DATE
	PRPD. BY	PRIYANSHU	05.07.2024
	CHKD. BY	ZOHAIB	05.07.2024
	APPVD. BY	SANJAY	05.07.2024

DRAWING NO.	SIPL/CRICKET STADIUM/PATNA/SITE PLAN/01	REV.
SHEET NO.	A1	R0



SITE AREA = 29.11 ACRES



## WORKING DRAWING

### NOTES -

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### ELECTRICAL LEGEND :-

S.NO.	SYMBOL	DESCRIPTION
1		FEEDER PILLAR
2		HIGH MAST 60 MTR
3		POST TOP LANTERN 60 W LED LIGHT
4		BOLLARD LIGHT
5		POLE MOUNTED FLOOD LIGHT

### NOTE:-

1. LANDSCAPE LIGHTING ELEMENT i.e BOLLARD LIGHT, SPIKE LIGHT, GROUND BURIED LIGHT, WALL WASHER etc LIGHTS QUANTITY WILL BE AS PER FINAL LANDSCAPING PLAN.
2. ALL THE ROAD MUST HAVE CCTV SURVEILLANCE & ALL GATES MUST HAVE ANPR CAMERA & LANDSCAPE AREA MUST HAVE PTZ CAMERA AS REQUIRED

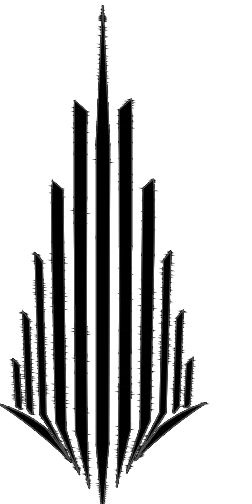
### CLIENT

BIHAR CRICKET ASSOCIATION

### PROJECT

REDEVELOPMENT OF MOIN-UL-HAQ CRICKET STADIUM AT PATNA, BIHAR

### ARCHITECT



**SKYLINE**  
INFRAWORLD PVT. LTD.

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E-MAIL : skyline@skylineinfraworld.in

**ARCHITECT : SANJAY & VIJAY SINHA**

TITLE	EXTERNAL ELECTRICAL DRAWING	SCALE - 1:1500		DATE
		PRPD. BY	PRIVANSHI	05.07.2025
		CHKD. BY	ZOHAIB	05.07.2025
		APPVD. BY	SANJAY	05.07.2025
DRAWING NO.	SIPL/CRICKET STADIUM/PATNA/SITE PLAN/01			REV.
SHEET NO.	A1			R0

GRID - 10M X 10M



