Annexure-I
Existing EC

Annexure-I

(4) (49)

No. 21-269/2008-IA.III
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodi Road,
New Delhi - 110 003.

Dated: 17th July, 2009.

To
The Secretary,
Department of Health,
Government of Bihar,
Patna.

Subject: Construction of AIIMS, Apex Health Care Institute Phulwari Sharif, Patna, Bihar by M/s. Secretary, Department of Health, Government of Bihar - Environmental Clearance - Reg.

Dear Sirs,

This has reference to the letter No. Z-29022/1/06-SSH (pt), dated 02.05.2008 of Director, Ministry of Health & Family Welfare, Govt. of India and subsequent letters dated 13.10.2008 and 03.06.2009 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 26th – 28th June 2008, 19th – 20th November, 2008 and 18th – 19th June, 2009 and awarded "Silver" grading to the project.

2. It is interalia, noted that the project involves the construction of a hospital and a medical college on a plot area of 100.5 acres. The complex will have a 960 beds hospital, teaching complex, auditorium, residential complex and public utility and infrastructure. The total water requirement is 2.0 MLD. Treated waste water to be used for horticulture 200 KLD, AC cooling 330 KLD. Total solid waste generation will be 1920 Kg/day. The waste will be treated and disposed as per the provisions of Bio-medical waste (Management and Handling Rules 1988). The power requirement is 10 MVA. The total parking spaces proposed are for 32 cars + 900 sq.m. for two wheeler parking area. Total cost of the project is Rs.290.0 crores.

3. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental Clearance for the project mentioned above. Accordingly, the Ministry hereby accord necessary Environmental Clearance for the above project as per the provisions of Environmental Impact Assessment Notification – 2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

PART A - SPECIFIC CONDITIONS

I. Construction Phase

(i) "Consent for Establishment" shall be obtained from Bihar Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.

(ii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

(iii) A First Aid Room will be provided in the project both during construction and operation of the project.

(iv) All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.

(v) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

(vi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

(vii) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.

(viii) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the Bihar Pollution Control Board.

(ix) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.

(x) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.

(xi) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

(xii) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ BPCB.

(xiii) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. As the site is located within the 100 Km of Thermal Power Stations.

(xiv) Ready mixed concrete must be used in building construction.

(xv) Storm water control and its re-use as per CGWB and BIS standards for various applications.

(xvi) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

(xvii) Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.

(xviii) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.

(xix) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.

(xx) Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.

(xxi) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.

(xxii) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfill requirement.

(xxiii) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.

(xxiv) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.

(xxv) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.

II. Operation Phase

i) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Bihar Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.

ii) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.

iii) Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with Bihar Pollution Control Board.

iv) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.

v) The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.

vi) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.

vii) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts. above the highest ground water table.

viii) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.

ix) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.

x) A Report on the energy conservation measures confirming to energy conservation norms finalise by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.

xi) Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.

xii) Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

xiii) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

PART – B. GENERAL CONDITIONS

i) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.

ii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

4. Officials from the Regional Office of MOEF, Bhubaneshwar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Bhubaneshwar.

5. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

6. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

9. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Bihar Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneshwar.

10. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

11. Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

12. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

14. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

(Bharat Bhushan)
Director (IA)

(42)

Copy to:

1. The Secretary, Department of Environment, Government of Bihar, Secretariat, Patna.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 110 032.
3. Member Secretary, Bihar Pollution Control Board, Department of Environment, Govt. of Bihar, Patna.
4. Dr. Vinayak M. Prasad, Director, Ministry of Health & Family Welfare, Nirman Bhawan, New Delhi – 110 108.
5. The CCF, Regional Office, Ministry of Environment & Forests RO (EZ), A/3, Chandrasekharpur, Bhubaneshwar – 751023
6. IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
7. Guard file.

(Bharat Bhushan)
Director (IA)
17.07.2007

Annexure-II

Existing CTE & its Extension

Annexure - VIII

(6)

BIHAR STATE POLLUTION CONTROL BOARD
Beltron Bhawan, Shastri Nagar, Patna – 800 023
BIHAR
EPABX - 0612-2281250/2282265, Fax - 0612-2281050
E-mail-bspcb@vsnl.net, Website - http://bspcb.bih.nic.in

BY REGISTERED POST

Ref. No. PT(NC)-3808/09/ 8-652 Patna, Dated- 11.8.10

CONSENT -TO - ESTABLISH (NOC)

UNDER SECTION 25/26 OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 AND 21 OF THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

REFERENCE:

Reference application no.25874 dated17.12.09 of M/s Apex Health Care Teaching Institution, All India Institute of Medical Sciences, Phulwarishariff, Patna for setting up a Health Care Facilities at Opp. DAV Public School, Walmi, Phulwarishariff, Patna

AFTER CONSIDERING:

(I) The facts stated in their application and Environmental clearance issued by Govt. of India, Ministry of Environment & Forest, New Delhi, vide letter no 21-269/2008-1A III dated 17.07.2009

(ii) Bihar State Pollution Control Board's Notification No. 26, dated 08.11.2003

(iii) Provisions of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and the Bio-medical Waste (Management and Handling) Rules, 1998

NOC IN FAVOUR OF THE PROPONENT AT THE SAID SITE IS HEREBY ACCORDED SUBJECT TO THE FOLLOWING CONDITIONS

(i) The Proponent shall obtain consent-to -operate under section 25/26 of the Water Act, 1974, under section 21 of the Air Act, 1981

(ii) Authorisation shall obtain under the Bio-medical waste (Management & Handling) Rules, 1998 and the amended there of, prior to commissioning of the Institute

(5)

(iii) The effluent (domestic and liquid waste) shall conform to the standards as prescribed by the Board

(iv) Effluent Treatment Plant/Sewage Treatment Plant shall construct as per the CPCB guidelines.

(v) The installation of Incinerator, Autoclave, Microwave. Shredder etc shall be done as per the CPCB guidelines.

(vi) The design and construction of the Incinerator shall be done as per the guidelines of CPCB The Incinerator shall be equipped with Air Pollution Control Device such as High pressure venturi scrubber system to comply with the particulate matter emission limit of 150 mg/Nm3 (corrected to 12% CO2)

(vii) The minimum height of the stack attached to the Incinerator shall be 30 meters duly fitted with port hole and platform to measure emission and the height of the exhaust pipe of the D G set shall be 3 meters above roof of the building in which installed and the noise level shall be controlled by having D.G set with integrated acoustic enclosure.

(viii) Appropriate management measures for treatment and disposal of bio-medical wastes of each category as per the provisions of schedule-V of the Bio-medical waste (M&H) Rules, 1998 shall be done.

(ix) The emission (SPM, SO_2, NOx etc.) standard shall conform as prescribed by the Board.

(x) They shall maintain the record as per the Bio-medical Waste (M&H) Rules. 1998

(xi) The Bihar State Pollution Control Board reserves the option to revise and add other conditions if necessary for protection of Environment in general and pollution control in particular

(xii) The present NOC should not be construed as an assurance for granting consent to operate the proposed unit and in subject to compliance of all the conditions noted above

(xiii) This NOC is valid for period of one year from the date of issue.

(M. K. Singh)
Member-Secretary

CTE

Annexure-1

बिहार राज्य प्रदूषण नियंत्रण पर्षद्

बेल्ट्रॉन भवन, शास्त्रीनगर, पटना - 800 023
दूरभाष नं0- 0612-2281250/2282265, फैक्स- 0612-2281050
ई-मेल-bspcb@vsnl.net, वेबसाईट- http://bspcb.bih.nic.in

By registered post

Ref. no.: PT (NOC)-3808/09/ B- 876 Patna, dated: 08.9.11

From

Manoj Kumar Singh
Member-Secretary

To

Mr. V.K.Tyagi
Chief Engineer, PMU-PMSSY,
M/s Apex Health Care Teaching Institution,
All India Institute of Medical Sciences,
Opp. DAV Public School, Walmi,
Phulwarishariff, Patna

Sub: **Extension of period of validity of the Consent-to- Establish (NOC) No. PT (NOC) 3808/09/B- 652 dt. 02.11.08.2010**

Ref.: **Your letter no. A/6000/AIIMS/Patna dated 05 August 2011**

Sir,

With reference to the subject noted above and letter under reference, it is to inform that this Board is pleased to extend the validity period of the Consent-to-Establish (NOC) for setting up a Health Care Facility in favour of M/s Apex Health Care Teaching Institution, All India Institute of Medical Sciences, Patna at Phulwarishariff, Opp. DAV Public School, Walmi, Patna issued vide this office letter no. PT(NOC) 3808/09/B-652 dt.11.08.2010 for a further period **from 11.08.2011 to 31.03.2013.** All other terms and conditions detailed in the said NOC will remain unchanged.

You are also requested to ensure the compliance of conditions stipulated in the Environmental Clearance granted to you by the Ministry of Environment & Forest, Govt. of India and to send a status report of the compliances made periodically to the Regional Office, Ministry of Environment & Forest, Govt. of India; Zonal Office, Central Pollution Control Board, Kolkata and Bihar State Pollution Control Board, Patna

This has the approval of the competent Authority

Yours faithfully,

(Manoj Kumar Singh)
Member-Secretary

Annexure-III
Existing CTO

BY REGISTERED POST

BIHAR STATE POLLUTION CONTROL BOARD

Parivesh Bhawan, N.S.B.-2, Patliputra Industgrial Area
P.O: Sadaquat Ashram, Patna – 800010

Ref. No. Pt-3-460/12 / Patna, Dated-

EMISSION CONSENT ORDER

With reference to the application no. 1643919 dated 17.09.2018 of **M/s All India Institute of Medical Sciences (AIIMS), Patna** under section 21 of the Air (Prevention & Control of Pollution) Act, 1981, he/they is/are granted consent to operate his/their 960 Bedded Health Care Facility at Phulwarisharif, Patna-801507. This Consent Order will be valid upto 30.11.2023 from the date of issue with the following conditions: -

1. That, he/they shall not make any alteration, addition, deletion or modification in the plant without the prior clearance from the Board and shall also abide by the obligations under sections 22,23 and 31A of the Air (Prevention & Control of Pollution) Act, 1981 and further shall extend co-operation to the Board in performing its functions entrusted under sections 24,25 and 26 of the Act;
2. That, they shall comply with the requirements of the Environment (Protection) Act, 1986; the Hazardous Waste Management Rules 2016; the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989; and the provisions of the Public Liability Insurance Act, 1991,whichever is applicable;
3. That, he/they shall monitor his/their emission(s) and the ambient air quality from representative point regularly and shall maintain its quality in conformity with Board's standards and shall produce its proof, as and when asked for;
4. That, he/they shall submit application for consent again 30 days before the expiration of the period of consent.
5. *That, the D.G set should be provided with an integral acoustic enclosure and the maximum permissible sound pressure level for new D.G set shall be 75dB(A) at 1 meter from the enclosure surface.*
6. *That, the minimum height of stack for exhaust emission to be provided with D.G set shall be 1.0 meter more than the height of the building where it is installed.*
7. *That, the occupier shall submit stack emission report every year during the period of consent order.*
8. *The bio-degradable waste shall be processed, treated and disposed off through compositing or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.*
9. *That, the unit shall submit Environmental Statement by Sept. every year;*
10. *That, tree plantation shall be done in space available in the complex;*
11. *That, the occupier/operator shall comply all the conditions as imposed in the Authorisation under the Bio-medical Waste Management Rules, 2016*
12. *That, the unit shall submit Annual Report in Form –IV under the Bio-Medical Waste Management Rules, 2016 to the Board within 30th June every year;*
13. *That , this consent order is granted, subject to the condition that in the event of any information's/ documents submitted by the proponent are found false or misleading at any stage the consent order granted shall be revoked and legal action shall be initiated;*
14. *The unit shall comply with all above conditions and submit compliance report every year to the Board.*

This has approval of the competent authority.

Sd/-
(Naveen Kumar)
Scientist

To,

Dr. P.K. Singh, Director
All India Institute of Medical Sciences (AIIMS),
Phulwarisharif,
Patna-801507

Memo no.: B-178 Patna, dated: 28-01-2021

Copy to: The Regional Officer, B.S.P.C.B, Patna for information and necessary action.

28/01/21
(Naveen Kumar)
Scientist

BIHAR STATE POLLUTION CONTROL BOARD

Parivesh Bhawan, Patliputra Industrial Area
P.O: Sadaquat Ashram Patna - 800010

BY REGISTERED POST

Ref. No.-Pt/-2-68/12/ Patna, Dated-

DISCHARGE CONSENT ORDER

With reference to the application no. 1643919 dated 17.09.2018 of **M/s All India Institute of Medical Sciences (AIIMS), Patna** for consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, he/they is/are granted consent to operate his/their 960 Bedded Health Care Facility at Phulwarisharif, Patna-801507. This Consent Order will be valid upto 30.11.2023 from the date of issue with the following conditions: -

1. That, he/they shall not make any alteration, addition, deletion or modification in the plant/hospital without the prior clearance from the Board and shall also abide by the obligations under sections 24,31 and 33A of the Water (Prevention & Control of Pollution) Act, 1974 and further shall extend co-operation to the Board in performing its functions entrusted under sections 20,21,23,30 and 32 of the Act;
2. That, they shall comply with the requirements of the Environment (Protection) Act, 1986; the Hazardous Waste Management Rules 2016; the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989; and the provisions of the Public Liability Insurance Act, 1991,whichever is applicable;
3. That, he/they shall monitor his/their effluents (s) regularly and maintain its quality in conformity with Board's standards and shall produce its proof, as and when asked for;
4. That, he/they shall submit application for consent again 30 days before the expiration of the period of consent;
5. *That, the effluent generated or treated from the premises should conform to the prescribed limits before discharge into the sewer. (pH-6.5-9.0; Suspended Solids- 100 mg/l, Oil & Grease- 10 mg/l, BOD- 30 mg/l, COD- 250 mg/l, Bio assay test – 90%, survival of fish after 96 hours in 100% effluent).*
6. *That, the occupier shall submit effluent test report from the approved laboratory every year during the consent period and it should conform the permissible limit of the CPCB ;*
7. *That, the unit shall submit Environmental Statement by Sept. every year;*
8. *That, the bio-degradable waste shall be processed, treated and disposed off through compositing or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body; .*
9. *That , this consent order is granted, subject to the condition that in the event of any information's/ documents submitted by the proponent are found false or misleading at any stage the consent order granted shall be revoked and legal action shall be initiated;*
10. *That, The unit shall comply with all above conditions and submit compliance report every year to the Board; .*
11. *That, the Occupier shall comply all the provisions of the Bio-medical Waste Management Rules, 2016.*

This has approval of the competent authority.

To,

Dr. P.K. Singh, Director
All India Institute of Medical Sciences (AIIMS),
Phulwarisharif,
Patna-801507

Sd/-
(Naveen Kumar)
Scientist

Memo no.: 873 Patna, dated: 28.1.2021

Copy to: The Regional Officer, B.S.P.C.B, Patna for information and necessary action.

28/01/21
(Naveen Kumar)
Scientist

EPABX -0612-2261250/2262265, Fax -0612-2261050
E-mail-bspcb@yahoo.com, Website-http://bspcb.bih.nic.in

Annexure-IV
Land Documents

Annexure – VI

(52)

(33)

जिला गजट

बिहार सरकार द्वारा प्रकाशित

पटना

असाधरण अंक संख्या:- 01 पृष्ट -1 दिनांक 10-01-06

बिहार सरकार

राजस्व एवं भूमि सुधार विभाग

(भू-अर्जन निदेशालय)

अधिसूचना

पटना

तारीख:-02-01-06

स0 15 / डी0एल0ए0 पटना- 6/05:- 01 : रा0

चूँकि बिहार सरकार को यह प्रतीत होता है कि ग्राम भुसौला दानापुर थाना न0- 40 परगना फुलवारी थाना फुलवारी के जिला पटना में सार्वजनिक प्रयोजनार्थ अर्थात अखिल भारतीय आयुर्विज्ञान संस्थान निर्माण के लिए सरकारी खर्च पर सरकार द्वारा जमीन ली जानी अपेक्षित है इसलिए इसके द्वारा अधिसूचित किया जाता है कि उपर्युक्त प्रयोजनार्थ पूर्वोक्त ग्राम भुसौला दानापुर थाना न0- 40 के भीतर का एक टुकरा अपेक्षित है, जो मानक माप से कम-बेश 29.31 एकड के बराबर होता है,और जिनका सर्व खेसरा संख्या:-1669,1673,1674,1675,1677,1678,1679, 1683,1703,1704,1705,1706,1751,1752,1753,1755,1756,2154,2162,2163,2164,2166,2167,2170,2172,2173, 2174,2175,2176,2177,2178,2179,2180,2181,2182,2183,2184,2185,2186,2187,2188,2195,2216,2226,2227, 2229,2230,2285,सभी पूर्ण भाग एवं 1664,1666,1667,1668,1670,1671,1672,1676,1680,1681,1682,1684, 1688,1689,1690,1691,1692,1693,1698,1699,1701,1702,1707,1708,1709,1710,1746,1748,1749,1750,1754 1757,1758,1759,1760,1761,,1762,2089,2092,2093,2147,2148,2152,2153,2155,2156,2157,2159,2160, 2161,2165,2168,2169,2171,2189,2193,2194,2196,2197,2198,2199,2200,2201,2207,2208,2209,2214, 2215,2217,2218,2224,2225,2228,2231,2232,2233,2234,2235,2426,2579,2580,2582,2583,2584 ,2586 सभी खेसर अश भाग और जिसकी चौहद्दी निम्न प्रकार है:-

उत्तर :- खेसरा 1746,1749,1750,1748,1707,1708,1710,1709,1681,2165,2147,2148,2153,2152, 2156,2157,2159,2160,2161,2169,2201,2200,2092,2091,2089,2586 सभी खेसर अंश भाग।

पूरब :- खेसरा 2118,2198,2197,2196,2193,2194,2171,2189,2224,2225,2234,2235,सभी खेसर अंश भाग।

दक्षिण : खेसरा 1690,1691,1692,1693,1698,1699,1701,1702,1758,1759,1760,1761,1762,1671,1670,1668, 1664,1667,1666,1681,2426,2231,2232,2233,2228, सभी खेसर अंश भाग एवं 1775 पूर्ण भाग ।

पश्चिम :-2091,2092,2093,2214,2215,2217,2209,2208,2199,2200,1671,1672,1676,1680,1681,1682, 1684,1688,1689,1690,सभी अंश भाग एवं 1775 पूर्ण भाग।

यह अधिसूचना, अधिनियम 1,1894 की धारा 4 के उपबंधो के अधीन जैसा कि बिहार अधिनियम 11 सन् 1961 द्वारा संशोधित हुआ है उन सभी व्यक्तियो के लिए जारी की जाती है जिसका इससे सम्बन्ध हो। भूमि का नक्शा भू-अर्जन पदाधिकारी पटना के कार्यालय में देखा जा सकेगा। बिहार सरकार जिला भू-अर्जन पदाधिकारी, पटना और उनके कर्मचारीयों तथा इस परियोजना से सम्बद्ध प्रारम्भिक अनुसंधान में तत्समय लगे सचिव स्वास्थ्य (चि0 शि0 एव दे0 चि0) विभाग बिहार पटना के पदाधिकारीयों और कर्मचारियों को भूमि पर जाने और उसका सर्वेक्षण करने तथा उक्त अधिनियम को धारा 4 की उपधारा(2) में यथा उपबंधित या विनिदिष्ट अपने कार्य के समुचित निष्पादन के लिए अपेक्षित अन्य सभी कार्य करने के लिए प्राधिकृत करती है।

उक्त अधिनियम की धारा 17(4) द्वारा प्रदत शक्तियों का प्रयोग करते हुए बिहार सरकार ने निश्चय किया है कि परियोजना की शीघ्रता को ध्यान में रखते हुए अधिनियम की धारा 5 ए के उपबंध लागू नही होगे।

बिहार राज्यपाल के आदेश से
एस0 मोहन भारतीय
सरकार के अवर सचिव

जिला गजट

बिहार सरकार द्वारा प्रकाशित

पटना

(32)

बिहार सरकार
राजस्व एवं भूमि सुधार विभाग

(भू-अर्जन निदेशालय)

अधिघोषणा

पटना

तारीख 04-01-06

स्था 15 / डीएलएए० पटना- 6/05:- 34 टा0

चूँकि बिहार सरकार को यह प्रतीत होता है कि ग्राम भुसौला दानापुर थाना न0- 40 परगना फुलवारी थाना फुलवारी के जिला पटना में सार्वजनिक प्रयोजनार्थ अर्थात अखिल भारतीय आयुर्विज्ञान संस्थान निर्माण के लिए सरकारी खर्च पर सरकार द्वारा जमीन ली जानी अपेक्षित है इसलिए इसके द्वारा अधिघोषित किया जाता है कि उपर्युक्त प्रयोजनार्थ पूर्वोक्त ग्राम भुसौला दानापुर थाना न0- 40 के भीतर का एक टुकरा अपेक्षित है, जो मानक माप से कम-वेश 29.31 एकड के बराबर होता है और जिनका सर्वे खेसरा संख्या:-1669,1673,1674,1675,1677,1678,1679, 1683,1703,1704,1705,1706,1751,1752,1753,1755,1756,2154,2162,2163,2164,2166,2167,2170,2172 ,2173,2174,2175,2176,2177,2178,2179,2180,2181,2182,2183,2184,2185,2186,2187,2188,2195,2216, 2226,2227,2229,2230,2285,सभी पूर्ण भाग एव 1664,1666,1667,1668,1670,1671,1672,1676,1680,1681, 1682,1684,1688,1689,1690,1691,1692,1693,1698,1699,1701,1702,1707,1708,1709,1710,1746,1748,1749, 1750,1754,1757,1758,1759,1760,1761,,1762,2089,2092,2093,2147,2148,2152,2153,2155,2156,2157,2159, 2160,2161,2165,2168,2169,2171,2189,2193,2194,2196,2197,2198,2199,2200,2201,2207,2208,2209, 2214,2215,2217,2218,2224,2225,2228,2231,2232,2233,2234,2235,2426,2579,2580,2582,2583, 2584,2586 सभी खेसर अश भाग और जिसकी चौहदी निम्न प्रकार है:-

उत्तर :- खेसरा 1746,1749,1750,1748,1701,1708,1710,1709,1681,2165,2147,2148, 2153,2152, 2156,2157,2159,2160,2161,2169,2201,2200,2092,2091,2089,2586 सभी खेसर अंश भाग ।

पूरब :- खेसरा 2118,2198,2197,2196,2193,2194,2171,2189,2224,2225,2234,2235,सभी खेसर अंश भाग ।

दक्षिण :- खेसरा 1690,1691,1692,1693,1698,1699,1701,1702,1758,1759,1760,1761,1762,1671,1670,1668, 1664,1667,1666,1681,2426,2231,2232,2233,2228, सभी खेसरा अंश भाग एवं 1775 पूर्ण भाग ।

पश्चिम :-2091,2092,2093,2214,2215,2217,2209,2208,2199,2200,1671,1672,1676,1680,1681,1682, 1684,1688,1689,1690,सभी अंश भाग एवं 1775 पूर्ण भाग ।

भूमि या भूमि के किसी भाग के नीचे पड़ने वाली कोयला ,लोहा पत्थर ,स्लेट या अन्य खनिजो की खानो की आवश्यकता नहीं है ,किन्तु खानो और खनिजो के केवल वे भाग, जिस कार्य के लिए भूमि अर्जित की जा रही है उसके निमार्ण के लिए खोदना, हटाना या उपयोग में लाना आवश्यक हो, ले लिए जायेंगे । यह घोषणा अधिनियम 1,1894 की धारा 6 के और अधिनियम 18,1885 की धारा 3 के खड (1) यथा संशोधित अधिनियम के धारा 4सन 1961 एव 1984 के उपबधो के अधीन उन सभी व्यक्तियो के लिए जारी की जाती है, जिनका इससे सम्बन्ध हो । भूमि का मानचित्र जिला भू-अर्जन पदाधिकारी, पटना के कार्यालय मे देखा जा सकेगा ।

बिहार राज्यपाल के आदेश से

ह0/ मदन मोहन भारतीय

सरकार के अवर सचिव

Summary of Endorsement

(31)

This document was presented for registration on this Tuesday, the 10th of May 2011 by The ector.

A stamp duty of Rs. 160/- and other fees of Rs. 644/- has been paid in it.

The document was found admissible. The names, photographs and fingerprints and signatures of the executants, and their identifier, who have admitted execution before me, are affixed on the reverse page.

The document has been registered as deed no. 14274 in Book No. 1, Volume No. 248 on pages from 266 to 277 and has been preserved in total 12 pages in C.D. No. 38 , Year 2011 .

SCANNED

Signature with date
(Ajay Krishna Mishra)
Registering Officer , Patna

Date :10/05/2011 Token No 17176 / 2011

DRAFT FOR LEASE DEED

This indenture made the 25th Day of April 2011 between the Collector, Patna and on behalf of Governor of Bihar (Hereinafter called the LESSOR which expression shall where the context so admits or implies include his successors in office ~~and office~~ and assignees) of the one part.

AND

Joint Secretary, Health and Family Welfare Department, Govt. of India (Hereinafter called the LESSEE which expression shall where the context so admits or implies and include his successors in office and assignees) of the other part.

Sashibhushan

SHASHI BHUSHAN
Sharif

समाहर्त्ता
पटना

(30)

of establishment of NATIONAL INSTITUTE OF MEDICAL SCIENCE at Patna Ministry of Health and Family welfare Department. Govt of India as the LESSEE has no Sufficient area for the said purpose. The lessor Considered the necessity of the LESSEE and allowed Permanent transfer of the area 37.67 acres in Mauza Bhusaula Danapur, Phulwari Anchal' Thana no. 40 and 35 Acres in Mauza Saidpur, Thana no. 51 of Danapur Anchal. The details of land has been given in first part of schedule of this deed and the LESSEE has paid a sum of Rs 1 - as salami, as per the direction of Govt of Bihar, Revenue and Land Reforms Dept's Order vide Memo No. 770 dated 28.06.2004 and Memo No. 1(6) dated 12.01.2005 and Memo No. 1970 (6) dated 04.12.2006.

In witness where of the said parties have there unto set their hands seal the day and year first above written.

Signed by

25/4/11

समाहर्त्ता

पटना

Collector (LESSOR)

For and behalf of Governor of Bihar in the presence of

Witness

1. Sanjay Kumar Singh 10/5/11

2. Niranjan Kr Pandey 10-5-11

Signed by

Tarkeshwar 25/4/11

LESSEE

in the presence of

Witness

1. [illegible] 10/5/11 (Anil Kumar)

2. Bam Kumar (Braj Kumar)

Tarkeshwar 25/4/11

Page 2 of 10

The following are the details of the property leased out by the LESSOR to (29)

LESSEE, the land situated at Mauza Bhusaula Danapur, Thana no 40 of Phulwari Anchal and Mauza Saidpura, Thana No 51 of Danapur Anchal

1. The details of land of Mauza Bushaula, Thana no 40 of Phulwari Anchal are as follws -

S.P. No.	Area
2051	0.36
2053	0.005
2054	1.96
2055	1.42
2056	1.15
2057	1.75
2058	0.42
2067	1.45
1732	0.6
1731	0.22
1730	0.28
1729	0.17
1729	0.175
1728	0.15
1727	0.13
1726	0.05
1725	0.1
1724	0.12
1723	0.18
1746	0.305
1746	0.195
1754	0.01
1730	0.02

S.P. No.	Area
2156	0.06
2157	0.39
2158	0.23
2161	0.01
2160	0.09
2159	0.165
2169	0.02
2201	0.1
2200	0.105
2199	0.04
2208	0.03
2207	0.175
2202	0.18
2203	0.13
2203 2694	0.12
2204	0.04
2204	0.04
2204	0.04
2205	0.07
2205	0.07
2206	0.1
2206	0.1
2211	0.41

Sashi Bhushan

25/4/11

SHASHI BHUSHAN

Advisor

समाहर्त्ता

(28)

[illegible]	[illegible]
1748	[illegible]
1747	[illegible]
1722	[illegible]
1721	[illegible]
1720	[illegible]
1707	0.07
1708	0.055
1708	0.065
1719	[illegible]
1719	0.16
1718	0.64
1717	0.46
1717	[illegible]
1715	0.25
1716	0.24
1714	0.21
1713	0.14
1710	0.35
1711	0.37
1709	0.34
1698	[illegible]
1681	[illegible]
2168	0.005
2147	[illegible]
2137	[illegible]
1712	[illegible]
2127	[illegible]
2126	[illegible]
2125	[illegible]
2124	[illegible]
2120	[illegible]

[illegible]	[illegible]
2216	[illegible]
2195	[illegible]
2217	[illegible]
2213	[illegible]
2214	[illegible]
2215	[illegible]
2093	0.575
2093	0.575
2094	[illegible]
2095	[illegible]
2096	0.055
2096	0.05
2096	0.055
2097	0.15
2132	1.42
2144	[illegible]
2145	[illegible]
2143	[illegible]
2143	[illegible]
2130	[illegible]
2130	[illegible]
2130	[illegible]
2130	0.1575
2117	[illegible]
2117	[illegible]
2116	[illegible]
2116	[illegible]
2115	[illegible]
2115	[illegible]
2115	[illegible]
2114	[illegible]

Radhakrishan

25/4/11

समाहर्त्ता

पटना

2121	0.18
2122	0.18
2123	0.09
2125	0.09
2124	0.175
2119	0.175
2118	0.175
2118	0.175
2129	0.47
2128	0.245
2128	0.245
2136	0.16
2135	0.21
2134	0.19
2133	0.19
2142	0.1
2141	0.1
2140	0.09
2139	0.12
2138	0.11
2146	0.275
2146	0.275
2148	0.26
2153	0.02
2152	0.44
2149	0.46
2150	0.44
2151	0.305
2151	0.035

2114	0.085
2131	0.435
2131	0.435
2113	0.08
2113	0.07
2112	1.08
2111	0.005
2103	0.03
2101	0.05
2100	0.545
2102	0.06
2098	0.62
2099	0.6
2093	0.05
2092	0.06
2584	0.01
2155	0.005
1733	0.12
1733	0.06
1733	0.06
1734	0.05
1734	0.05
1735	0.06
1735	0.06
1736	0.25

Total – 37.67 Acres

(27)

Jaibhushan
25/4/11

SHASHI P SHAN
Elda
AIIMS C

तमाहर्त्ता
पटना

Annexure-V

Soil Investigation report

REPORT
ON
SUB SOIL INVESTIGATIONS
FOR
THE PROPOSED CONSTRUCTION
OF
RESIDENTIAL BUILDING
AT
AIIMS PATNA (BIHAR)

❖ DETERMINATION OF PILE CAPACITY

The safe capacity of pile foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of pile foundation design and following the relevant Indian Standard Codes. As per IS 2911 (Part 1/Sec 2) : 2010, the ultimate net pile capacity is obtained by the following formula:

The ultimate load capacity (Q_u) of piles, in kN, is determined from the following formula:

For Cohesive Soil (Clayey) Layer:

$$Q_u = A_p N_c c_p + \sum_{i=1}^{n} \alpha_i c_i A_{si} \quad (1)$$

For Cohesionless Soil (Sandy) Layer:

$$Q_u = A_p (\tfrac{1}{2} D\gamma N_\gamma + P_D N_q) + \sum_{i=1}^{n} K_i P_{Di} \tan\delta_i A_{si} \quad (2)$$

Where all the notations carry the usual meanings as per IS 2911 (Part 1/Sec 2) : 2010.

$$Q_{safe/all} = \frac{Q_u}{FOS} \quad (3)$$

For calculation, FOS is considered as 2.5. While calculating skin friction of the pile upto 25.0 m, the effective cohesion c = 46 kN/m^2 is considered. For 28.0 m and 30.0 m long pile, skin friction below 25 m is calculated from the skin friction formula for cohesionless soil. In this case, the effective angle of internal friction ϕ = 30° is used.

The calculation of pile capacity for AIIMS Patna site (BH- 5 to 9) for different pile length and diameter is presented in Table 1.

Pile length below GL. (m)	Pile diameter (m)	$Q_{end\ bearing}$ (kN)	$Q_{skin\ friction}$ (kN)	$Q_{safe} = (Q_{eb}+Q_{sf})/2.5$ (kN)
20.0	0.5	81.29	1083.85	466.06
	0.6	117.06	1300.62	567.07
	0.75	182.90	1625.77	723.47
25.0	0.5	274.97	1354.81	651.91
	0.6	475.14	1625.77	840.37
	0.75	928.02	2032.22	1184.09
28.0	0.5	274.97	1538.46	725.37
	0.6	475.14	1890.23	946.15
	0.75	928.02	2445.42	1349.38
30.0	0.5	274.97	1660.89	774.34
	0.6	475.14	2066.58	1016.67
	0.75	928.02	2720.89	1469.56

NIT·PATNA

❖ BEARING CAPACITY AND SETTELEMENT CALCULATION FOR RAFT FOUNDATION

The safe capacity of foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of foundation design and following the relevant Indian Standard Codes. As per IS 6403-1981 (reaffirmed in 2002).

The safe bearing capacity is calculated as per the following formula:

$$(q)_{safe} = \frac{q_u}{FOS} + \gamma D_f \qquad (4)$$

The bearing capacity of raft foundation can be calculated using Skempton's formula as follows:

$$q_u = cN_c \qquad (5)$$

where, $N_c = 5.0\left(1+0.2\frac{B}{L}\right)\left(1+0.2\frac{D}{B}\right)$ (6)

In the present calculation, the bearing capacity values for raft foundation have been estimated using Eq.5. Also, immediate settlement of the footing is calculated using the formula:

$$S_i = \frac{pB}{E}\left(1-\mu^2\right)I_p \qquad (7)$$

The consolidation settlement of the footing is estimated by the following formula:

$$S_c = H\frac{C_c}{1+e_0}\log_{10}\left(\frac{P_0+\Delta P}{P_0}\right) \qquad (8)$$

Where all terms carry their usual meanings as per section 9.2.3.2 of IS 8009 (part I) – 1976. Final settlement is calculated by considering pore press. correction factor, depth correction factor and rigidity correction factors wherever applicable.

Table 2: Estimated bearing capacities and settlement values for raft foundation (BH- 5 to 9)

D_f	B	L	C_u	q_{ult}	q_{safe}	Young's Modulus	Appl-ied Load	Gross Fd^n Pressure (P)	Available Factor of Safety	Corr. Immediate Settlement	Corr. Consolida-tion settlement	Total Settle-ment
m	m	m	kN/m^2	kN/m^2	kN/m^2	kN/m^2	kN	kN/m^2		mm	mm	mm
2.00	24.0	28.0	46.0	273.92	120.37	27600	38000	56.55	4.53	35.45	61.97	97.42
2.00	42.0	62.0	46.0	263.65	116.26	27600	100000	38.40	6.40	47.35	49.02	96.37
2.00	43.0	43.0	46.0	278.57	122.23	27600	85000	45.97	5.67	48.13	49.29	97.42
2.00	44.0	78.0	46.0	258.28	114.11	27600	120000	34.97	6.87	48.37	48.01	96.39
2.75	24.0	28.0	46.0	275.60	125.09	27600	39000	58.04	4.32	36.38	61.82	98.20
2.75	42.0	62.0	46.0	264.58	120.68	27600	102000	39.17	6.12	48.30	49.17	97.46
2.75	43.0	43.0	46.0	279.53	126.66	27600	85000	45.97	5.54	48.13	48.49	96.62
2.75	44.0	78.0	46.0	259.15	118.51	27600	123000	35.84	6.54	49.58	48.42	98.00
3.00	24.0	28.0	46.0	276.16	126.67	27600	39000	58.04	4.29	36.38	61.26	97.65
3.00	42.0	62.0	46.0	264.89	122.16	27600	103000	39.55	6.01	48.77	49.37	98.14
3.00	43.0	43.0	46.0	279.85	128.14	27600	87000	47.05	5.37	49.26	49.35	98.61
3.00	44.0	78.0	46.0	259.44	119.98	27600	123000	35.84	6.49	49.58	48.17	97.75

❖ BEARING CAPACITY AND SETTELEMENT CALCULATION FOR ISOLATED FOOTING

The safe capacity of foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of foundation design and following the relevant Indian Standard Codes. As per IS 6403-1981 (reaffirmed in 2002). The ultimate net bearing capacity is obtained by the following formula:

In case of general shear failure:

$$q_u = cN_c s_c d_c i_c + \gamma D_f \left(N_q - 1\right) s_q d_q i_q + 0.5B\gamma N_\gamma s_\gamma d_\gamma i_\gamma W' \qquad (9)$$

In case of local shear failure:

$$q_u = \frac{2}{3} cN'_c s_c d_c i_c + \gamma D_f \left(N'_q - 1\right) s_q d_q i_q + 0.5B\gamma N'_\gamma s_\gamma d_\gamma i_\gamma W' \qquad (10)$$

Where all the terms carry the usual meanings as per IS 6403-1981.

The shape factors s_c, s_q, s_γ; depth factors d_c, d_q, d_γ and inclination factors i_c, i_q, i_γ are calculated as per sections 5.1.2.1, 5.1.2.2 and 5.1.2.3 of IS 6403-1981. The ultimate net bearing capacity is obtained by the following formula:

$$q_d = cN_c s_c d_c i_c \qquad (11)$$

Where all the terms carry the usual meanings as per IS 6403-1981.

The safe bearing capacity is calculated as per the following formula:

$$(q)_{safe} = \frac{q_u}{FOS} + \gamma D_f \qquad (12)$$

Where FOS are considered 2.5.

Also, immediate settlement of the footing is calculated using the formula:

$$S_i = \frac{pB}{E}\left(1 - \mu^2\right) I_p \qquad (13)$$

The consolidation settlement of the footing is estimated by the following formula:

$$S_c = H \frac{C_c}{1 + e_0} \log_{10}\left(\frac{P_0 + \Delta P}{P_0}\right) \qquad (14)$$

Where all terms carry their usual meanings as per section 9.2.3.2 of IS 8009 (part I) – 1976.

Final settlement is calculated by considering pore press. correction factor, depth correction factor and rigidity correction factors wherever applicable.

IIT PATNA

Table 3: Estimated bearing capacities and settlement values for isolated footing (BH- 5 to 9)

D_f (m)	B (m)	L (m)	$q_{safe} = \frac{q_d}{FOS} + \gamma D_f$ (kN/m^2)	Applied Load (kN/m^2)	Gross Fd^n Pressure (kN/m^2)	Settlement (mm)
1.5	1.5	1.5	141.95	200	88.89 < q_{safe}	74.78 < 75.00 (safe)
2.0	2.0	2.0	148.28	300	75.00 < q_{safe}	69.98< 75.00 (safe)
2.5	2.5	2.5	154.62	450	72.00 < q_{safe}	70.63< 75.00 (safe)
3.0	3.0	3.0	160.95	650	72.22 < q_{safe}	73.10< 75.00 (safe)

❖ RECOMMENDATIONS

The designer may choose appropriate length and diameter of the pile/ appropriate raft size/ appropriate isolated footing to suit the design requirement.

❖ LIMITATIONS

If during actual construction of foundation and structure, the properties of the encountered soil is quite different from what is reported here, suitable measures must be taken.

15/05/23 15/5/23 15/05/23 15/05/23

(Dr. Avijit Burman) NIT Patna

(Dr. S. S. Choudhary) NIT Patna

(Dr. Pijush Samui) NIT Patna

(Dr. Sanjay Kumar) NIT Patna

राष्ट्रीय प्रौद्योगिकी संस्थान, पटना NIT-PATNA NATIONAL INSTITUTE OF TECHNOLOGY, PATNA

REPORT
ON
SUB SOIL INVESTIGATIONS
FOR
THE PROPOSED CONSTRUCTION
OF
ACADEMIC BUILDING
AT
AIIMS PATNA (BIHAR)

❖ DETERMINATION OF PILE CAPACITY

The safe capacity of pile foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of pile foundation design and following the relevant Indian Standard Codes. As per IS 2911 (Part 1/Sec 2) : 2010, the ultimate net pile capacity is obtained by the following formula:

The ultimate load capacity (Q_u) of piles, in kN, is determined from the following formula:

For Cohesive Soil (Clayey) Layer:

$$Q_u = A_p N_c c_p + \sum_{i=1}^{n} \alpha_i c_i A_{si} \quad (1)$$

For Cohesionless Soil (Sandy) Layer:

$$Q_u = A_p (\tfrac{1}{2} D\gamma N_\gamma + P_D N_q) + \sum_{i=1}^{n} K_i P_{Di} \tan\delta_i A_{si} \quad (2)$$

Where all the notations carry the usual meanings as per IS 2911 (Part 1/Sec 2) : 2010.

$$Q_{safe/all} = \frac{Q_u}{FOS} \quad (3)$$

For calculation, FOS is considered as 2.5. While calculating skin friction of the pile upto 25.0 m, the effective cohesion c = 50 kN/m^2 is considered. For 28.0 m and 30.0 m long pile, skin friction below 25 m is calculated from the skin friction formula for cohesionless soil. In this case, the effective angle of internal friction ϕ = 30° is used.

The calculation of pile capacity for AIIMS Patna site (BH- 1 to 4) for different pile length and diameter is presented in Table 1.

Pile length below GL. (m)	Pile diameter (m)	$Q_{end\ bearing}$ (kN)	$Q_{skin\ friction}$ (kN)	$Q_{safe} = (Q_{eb}+Q_{sf})/2.5$ (kN)
20.0	0.5	88.36	1178.10	506.58
	0.6	127.23	1413.72	616.38
	0.75	198.80	1767.15	786.38
25.0	0.5	274.97	1472.62	699.04
	0.6	475.14	1767.15	896.92
	0.75	928.02	2208.93	1254.78
28.0	0.5	274.97	1656.27	772.49
	0.6	475.14	2031.60	1002.70
	0.75	928.02	2622.14	1420.06
30.0	0.5	274.97	1778.70	821.47
	0.6	475.14	2207.90	1073.22
	0.75	928.02	2897.61	1530.25

NIT PATNA

❖ BEARING CAPACITY AND SETTELEMENT CALCULATION FOR RAFT FOUNDATION

The safe capacity of foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of foundation design and following the relevant Indian Standard Codes. As per IS 6403-1981 (reaffirmed in 2002).

The safe bearing capacity is calculated as per the following formula:

$$(q)_{safe} = \frac{q_u}{FOS} + \gamma D_f \quad (4)$$

The bearing capacity of raft foundation can be calculated using Skempton's formula as follows:

$$q_u = cN_c \quad (5)$$

where, $N_c = 5.0\left(1+0.2\frac{B}{L}\right)\left(1+0.2\frac{D}{B}\right)$ (6)

In the present calculation, the bearing capacity values for raft foundation have been estimated using Eq.5. Also, immediate settlement of the footing is calculated using the formula:

$$S_i = \frac{pB}{E}\left(1-\mu^2\right)I_p \quad (7)$$

The consolidation settlement of the footing is estimated by the following formula:

$$S_c = H\frac{C_c}{1+e_0}\log_{10}\left(\frac{P_0+\Delta P}{P_0}\right) \quad (8)$$

Where all terms carry their usual meanings as per section 9.2.3.2 of IS 8009 (part I) – 1976. Final settlement is calculated by considering pore press. correction factor, depth correction factor and rigidity correction factors wherever applicable.

Table 2: Estimated bearing capacities and settlement values for raft foundation (BH- 1 to 4)

D_f	B	L	C_u	q_{ult}	q_{safe}	Young's Modulus	Appl-ied Load	Gross Fd^n Pressure (P)	Available Factor of Safety	Corr. Immediate Settlement	Corr. Consolida-tion settlement	Total Settle-ment
m	m	m	kN/m^2	kN/m^2	kN/m^2	kN/m^2	kN	kN/m^2		mm	mm	mm
2.00	24.0	28.0	50.0	297.74	129.90	30000	39000	58.04	4.82	33.47	63.54	97.02
2.00	42.0	62.0	50.0	286.57	125.43	30000	105000	40.32	6.66	45.74	51.44	97.18
2.00	43.0	43.0	50.0	302.79	131.92	30000	88000	47.59	5.98	45.84	51.00	96.84
2.00	44.0	78.0	50.0	280.73	123.09	30000	125000	36.42	7.21	46.36	49.99	96.35
2.75	24.0	28.0	50.0	299.57	134.68	30000	40000	59.52	4.62	34.33	63.35	97.68
2.75	42.0	62.0	50.0	287.59	129.89	30000	105000	40.32	6.52	45.74	50.59	96.33
2.75	43.0	43.0	50.0	303.84	136.38	30000	88000	47.59	5.86	45.84	50.18	96.02
2.75	44.0	78.0	50.0	281.68	127.52	30000	126000	36.71	7.00	46.73	49.58	96.31
3.00	24.0	28.0	50.0	300.18	136.27	30000	40000	59.52	4.59	34.33	62.78	97.12
3.00	42.0	62.0	50.0	287.93	131.37	30000	105000	40.32	6.47	45.74	50.31	96.05
3.00	43.0	43.0	50.0	304.19	137.87	30000	89000	48.13	5.76	46.36	50.47	96.83
3.00	44.0	78.0	50.0	282.00	129.00	30000	126000	36.71	6.95	46.73	49.32	96.05

❖ BEARING CAPACITY AND SETTELEMENT CALCULATION FOR ISOLATED FOOTING

The safe capacity of foundation of any type and size may be determined on the basis of the soil data given in this Report by using the standard methods of foundation design and following the relevant Indian Standard Codes. As per IS 6403-1981 (reaffirmed in 2002). The ultimate net bearing capacity is obtained by the following formula:

In case of general shear failure:

$$q_u = cN_c s_c d_c i_c + \gamma D_f \left(N_q - 1\right) s_q d_q i_q + 0.5B\gamma N_\gamma s_\gamma d_\gamma i_\gamma W' \quad (9)$$

In case of local shear failure:

$$q_u = \frac{2}{3} cN'_c s_c d_c i_c + \gamma D_f \left(N'_q - 1\right) s_q d_q i_q + 0.5B\gamma N'_\gamma s_\gamma d_\gamma i_\gamma W' \quad (10)$$

Where all the terms carry the usual meanings as per IS 6403-1981.

The shape factors s_c, s_q, s_γ; depth factors d_c, d_q, d_γ and inclination factors i_c, i_q, i_γ are calculated as per sections 5.1.2.1, 5.1.2.2 and 5.1.2.3 of IS 6403-1981. The ultimate net bearing capacity is obtained by the following formula:

$$q_d = cN_c s_c d_c i_c \quad (11)$$

Where all the terms carry the usual meanings as per IS 6403-1981.

The safe bearing capacity is calculated as per the following formula:

$$(q)_{safe} = \frac{q_u}{FOS} + \gamma D_f \quad (12)$$

Where FOS are considered 2.5.

Also, immediate settlement of the footing is calculated using the formula:

$$S_i = \frac{pB}{E}\left(1 - \mu^2\right) I_p \quad (13)$$

The consolidation settlement of the footing is estimated by the following formula:

$$S_c = H \frac{C_c}{1 + e_0} \log_{10}\left(\frac{P_0 + \Delta P}{P_0}\right) \quad (14)$$

Where all terms carry their usual meanings as per section 9.2.3.2 of IS 8009 (part I) – 1976.

Final settlement is calculated by considering pore press. correction factor, depth correction factor and rigidity correction factors wherever applicable.

Table 3: Estimated bearing capacities and settlement values for isolated footing (BH- 1 to 4)

D_f (m)	B (m)	L (m)	$q_{safe} = \frac{q_d}{FOS} + \gamma D_f$ (kN/m^2)	Applied Load (kN/m^2)	Gross Fd^n Pressure (kN/m^2)	Settlement (mm)
1.5	1.5	1.5	152.64	200	88.89 < q_{safe}	74.63 < 75.00 (safe)
2.0	2.0	2.0	158.97	320	80.00 < q_{safe}	73.60< 75.00 (safe)
2.5	2.5	2.5	165.31	470	75.20 < q_{safe}	73.08< 75.00 (safe)
3.0	3.0	3.0	171.64	670	74.44 < q_{safe}	74.81< 75.00 (safe)

❖ RECOMMENDATIONS

The designer may choose appropriate length and diameter of the pile/ appropriate raft size/ appropriate isolated footing to suit the design requirement.

❖ LIMITATIONS

If during actual construction of foundation and structure, the properties of the encountered soil is quite different from what is reported here, suitable measures must be taken.

15/05/23 (Dr. Avijit Burman) NIT Patna

15/5/23 (Dr. S. S. Choudhary) NIT Patna

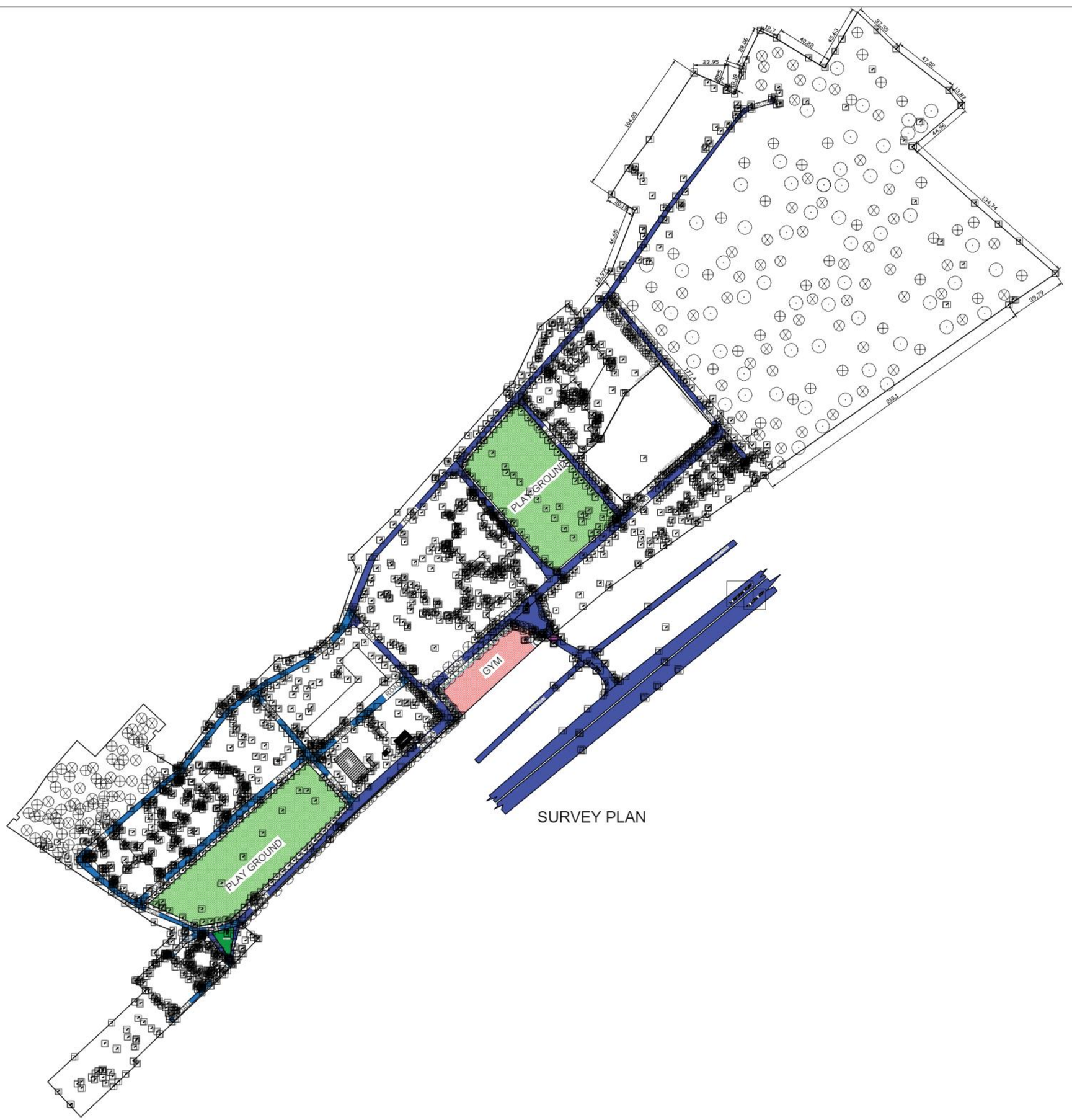
15/05/23 (Dr. Pijush Samui) NIT Patna

15.5.23 (Dr. Sanjay Kumar) NIT Patna

राष्ट्रीय प्रौद्योगिकी संस्थान, पटना NIT·PATNA NATIONAL INSTITUTE OF TECHNOLOGY, PATNA

Annexure-VI

Contour Plan



SURVEY PLAN

-: LEGEND :-

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
BUILDING		SIGN BOARD	
ELECTRIC POLE		BENCH MARK	
PROPERTY LINE		TRANSFORMER	TF
OTHER PLOT		TEMPL	
OTHER TREE		HAND PUMP	
ROAD		DRAIN	

NOTE:
- ALL DIMENSIONS ARE IN MM.
- ALL LEVELS ARE IN M.

REV. NO.	DATE	REMARKS	BY

SIGNATURE :-

CHECKED BY	SIGN	DATE
ARCHITECTURE		
CIVIL & STRUCTURE		
ELECTRICAL		
ELV SYSTEM		
HVAC		
FPS		
PIPING		
PHE		

CLIENT :-
ALL INDIA INSTITUTE OF MEDICAL SCIENCES, PATNA
PHULWARI SHARIF, PATNA-801507, BIHAR.

EXECUTING AGENCY :-
HITES
HLL INFRA TECH SERVICES LIMITED
B-14 A, SECTOR 62 , NOIDA (UP) -201 307

PROJECT :-
PROPOSED CONSTRUCTION OF
RESIDENTIAL QUARTERS AT AIIMS, PATNA, BIHAR

EPC CONTRACTOR :-
DIPANSHU PROMOTER & BUILDER PVT. LTD
H. OFFICE: 22,VATIKA APARTMENT
LIVE TANK ROAD,RANCHI-834001,
Tele Fax: 0651-2213975
PH: 0651-2213975

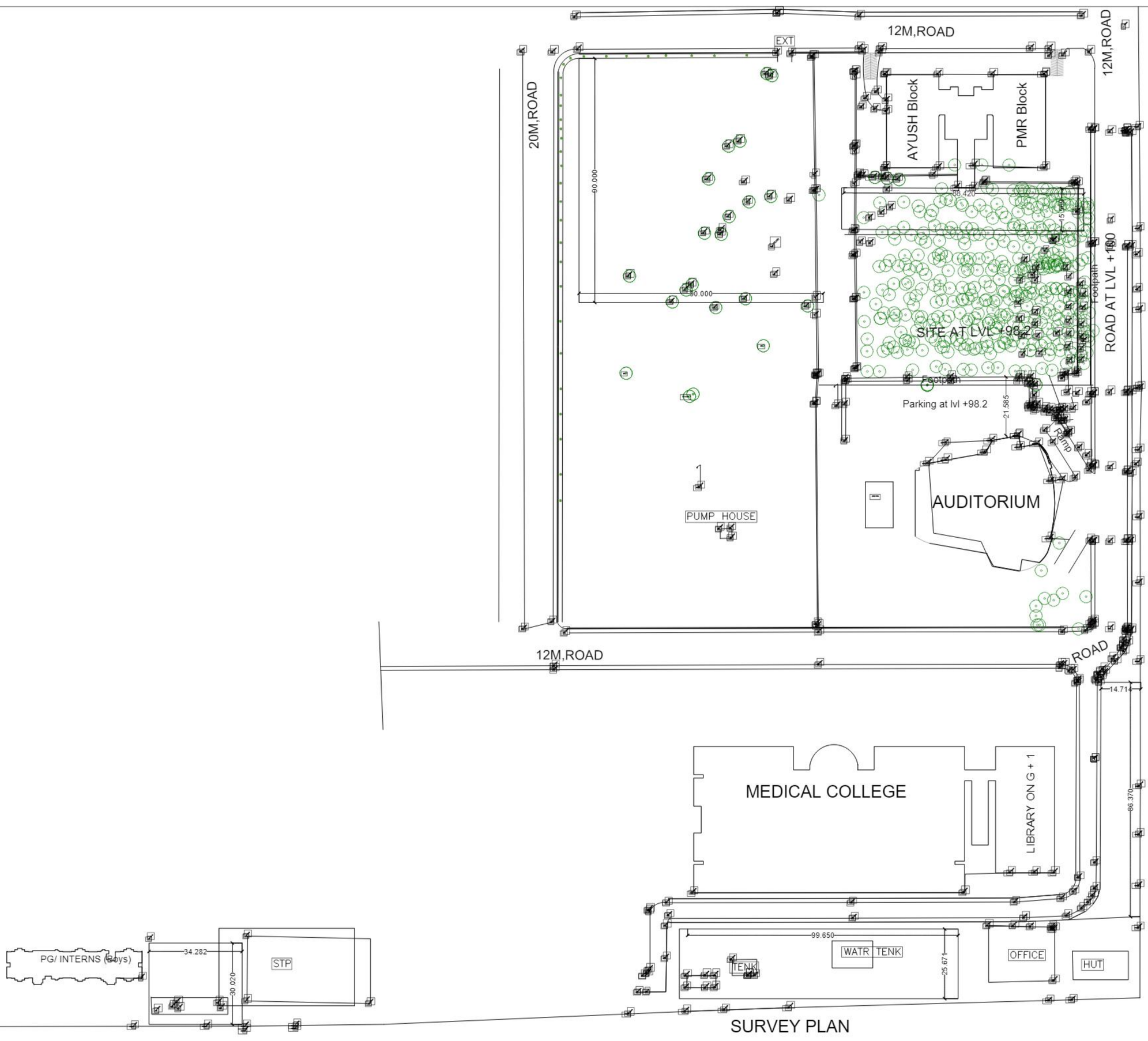
Building :-
TYPE V
RESIDENTIAL QUARTERS

North :-

DWG. Title :-
SURVEY PLAN

Drawing No. :-	R/Q / SP-1.01A	
SCALE	DATE	REVISION
N.T.S @ A0	21.07.2023	

FOR APPROVAL



REV. NO.	DATE	REMARKS	BY

SIGNATURE :-

CHECKED BY	SIGN	DATE
ARCHITECTURE		
CIVIL & STRUCTURE		
ELECTRICAL		
ELV SYSTEM		
HVAC		
FPS		
PIPING		
PHE		

CLIENT :-
ALL INDIA INSTITUTE OF MEDICAL SCIENCES, PATNA
PHULWARI SHARIF, PATNA-801507, BIHAR.

EXECUTING AGENCY :-
HITES
HLL INFRA TECH SERVICES LIMITED
B-14 A, SECTOR 62 , NOIDA (UP) -201 307

PROJECT :-
PROPOSED CONSTRUCTION OF
ACADEMIC BLOCK AT AIIMS, PATNA, BIHAR

EPC CONTRACTOR :-
DIPANSHU PROMOTER & BUILDER PVT. LTD
H. OFFICE: 2B VATIKA APARTMENT
LOHE TAKH ROAD RANCHI-834001,
Email:- design@gmail.com
Tele Fax: 0651-2212870
PH: 0651-2212870

Building :-
ACADEMIC BLOCK
(S + G + 8)

North :-

DWG. Title :- SURVEY PLAN

Drawing No. :- AC / SP-1.01A

SCALE	DATE	REVISION
N.T.S. @ A1	21.07.2023	

FOR APPROVAL

Annexure-VII

TOR Copy

F. No. - SIA/8(b)/2432/2023

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, BIHAR

2nd Floor, Beltron Bhawn
Shastri Nagar
Patna - 800 023
E-mail:- seiaabihar@gmail.com
seiaa.ms.br@gmail.com

Dated:- 07/07/2023

To,

Shri Yogesh Kumar,
Project Coordinator,
M/s ALL INDIA INSTITUTE OF MEDICAL SCIENCES,
Patna – Aurangabad Road,
Phulwarisharif,
Patna, Bihar,
Pin code:- 801 507.

Sub: **Proposed expansion of ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS) CAMPUS AND AIIMS RESIDENTIAL CAMPUS Project at Village:- Patna, Tehsil:- Patna Sadar, District:- Patna, State:- Bihar; by M/s ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS) [Total Plot Area:- 4,06,709.07 m^2, Total Built-up Area:- 3,24,456.94 m^2 (Proposed Built-up Area:- 1,35,800.94 m^2 & Existing Built-up Area:- 1,88,656 m^2)] – Terms of Reference regarding.**

Ref:

1. Online Application – SIA/BR/INFRA2/432150/2023.
2. Scrutiny fee submission dated 05-06-2023.

3. SEAC meeting held on 10-06-2023.

4. SEIAA meeting held on 01-07-2023.

Sir,

This has reference to the online proposal submitted in the State Level Environment Impact Assessment Authority to prescribe the Terms of Reference (ToR) for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, you had submitted online information in the prescribed format (Form - I) along with a Form - I (A). The details of the proposal as described in the application are as follows:

1.	**Online Proposal No.**	SIA/BR/INFRA2/432150/2023
2.	**File No.:**	SIA/8(b)/2432/2023
3.	**Name of the Proposal**	Proposed expansion of ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS) CAMPUS AND AIIMS RESIDENTIAL CAMPUS Project
4.	**Category of the Proposal:**	Township and Area Development Project. 8(b)
5.	**Project/Activity applied for**	Township and Area Development Project.

In this regard, under the provisions of the EIA Notification, 2006 as amended, the ToR for the purpose of preparing Environment Impact Assessment report and Environment Management Plan for obtaining prior Environmental Clearance is prescribed with Public Consultation as follows:-

A. STANDARD TERMS OF REFERENCE

1. Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.

2. Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/villages and present status of such activities.

3. Examine baseline environmental quality along with projected incremental load due to the project.

4. Environmental data to be collected in non-monsoon one season in relation to the project development will be(a) land, (b)groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.

5. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.

6. Submit the details of the tree to be felled for the project.

7. Submit the present land use and permission required for any conversion such as forest, agriculture, etc.

8. Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.

9. Ground water classification as per the Central Ground Water Authority.

10. Examine the details of Source of water, water requirement, use of treated waste water and prep area water balance chart.

11. Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.

12. Examine soil characteristics and depth of ground water table for rainwater harvesting.

13. Examine details of solid waste generation treatment and its disposal.

14. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.

15. DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.

5

16. Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.

17. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.

18. Examine the details of transport of materials for construction which should include source and availability.

19. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.

20. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.

21. Prepare a plan for creation of designated greenbelt area (green island) work of demolition of old structures should start from the opposite end of the green island so that wild fauna sheltered therein may take refuge in the island.

22. Prepare a plan regarding Storm Water Management, Sewage Treatment Plant (STP), Effluent Treatment Plant (for the effluents generated from the laboratories) Groundwater recharge points, Rainwater Harvesting, Biomedical Waste Management Hazardous Waste Management, Biogas, Manure, Solar energy, etc.

23. Prepare a plan regarding existing flora and fauna in the campus for its conservation.

24. Submit a copy of the contour map with slopes, drainage pattern of the site, and the surrounding area together with obstruction of the same by project, if any.

25. Submit species wise details GBH (Girth at Breast Height), of the trees to be felled for the project.

26. No tree should be felled. Instead all the trees should be translocated at a suitable site within the Project Premises. "Effort should be made to conserve the trees by modifying the layout/design, particularly the older trees which often are habitats of many activity

nesting fauna. If inevitable, felling should be planned with permission and under the guidance of Forest Department."

27. Examine separately the details for construction and operation phase both for Environment Management Plan and Environmental Monitoring plan with cost.

B. Special Condition

1. Obtain No Objection Certificate for abstraction of ground water from Central Ground Water Board, as prescribed.

2. Submit the certified compliance report of earlier Environmental Clearance from the competent authority.

3. Clarify from the Divisional Forest Officer, Patna Forest Division about the legal status of roadside land of Phulwari – AIIMS – Naubatpur Road viz whether the land has been declared as Protected Forest or not.

6/7/2023

(Sudhir Kumar)
Member-Secretary
SEIAA, Bihar

Annexure-VIII

Application for NOC for CGWA

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)

Application for Issue of NOC to Abstract Ground Water (NOCAP)

Information

Guidelines
Steps for Filling Online Application

Documents Required

Documents Required for Online Application
- Industrial
- Infrastructure
- Mining

Track Status

Application Status
- Online

Location

Area Type
Segment-B Area Type
Regional office Location
CGWA Headquarters
Know Your Environmental Compensation(EC)
Know Your Penalty
Ground Water Abstraction/Restoration Charges

Reports

Applied for NOC - Online
NOC Issued-Online

Contact Us

Contact

Application Status

Application No :	21-4/1622/BR/INF/2023
Receive Date :	16/06/2023
Name of Infrastructure :	ALL INDIA INSTITUTE OF MEDICAL SCIENCES PATNA
Application Processing Fee :	Rs. 10000.00/- (Rupees Ten Thousand Only) (Submitted: Yes)

Ground Water Abstraction/Restoration Charge :

Ground Water Quality Approved

Ground Water Charge Required: Not Define

Charge:

SN	Submitted Amount	Submitted	Submitted Date	Amount to be submitted	Due Date
1	0.00	Yes	21/06/2023	0.00	21/06/2024

Arear:

No Record Exists.

Environment Compensation

Illegal GW Abstraction (From)	(To)	Quantum Of Illegal GW (m3/d)	EC Amount (Rs):	Reason for EC	Other Reason	EC Received

Penalty for non Compliance of NOC conditions

Penalty SN	Remark	PenaltyReceived	Penalty Amount	Correction Amount
1		No	10000.00	0.00

Current Stage :	Application Processing Stage
Current Status :	In Process
Address :	Central Ground Water Authority 18/11,Jamnagar House, Man Singh Road NEW DELHI DELHI

Current Status

Application Verification

From User Name	To User Name	Forwarded User Name	Action Date	Action Internal Status	Action Comment	Copy of Application Received On

	(Evaluation Officer) Central Ground Water Authority		26/06/2023	Reject	Application is rejected Due to non-submission full advance Abstraction charges As per Public notice dated.13.10.2022 PP can request for revival of rejected application within 60 days of rejection of application excluding date of rejection. Revival shall be subject to payment of Revival Charges Rs. 10,000.00and fulfilling requirements due to which the application was rejected Advance Abstraction Charges.	
(Evaluation Officer) Central Ground Water Authority	(Evaluation Officer) Central Ground Water Authority	(Evaluation Officer) Central Ground Water Authority	16/08/2023	Approved	Forwarded to EOHQ. Query sent for submission of mandatory documents on 16.08.2023	

Application Processing

Receive Date	From User Name	To User Name	Forwarded User Name	Action Date	Action Internal Status	Action Comment	Ground Water Recom Per Day	Ground Water Recom Annual
16/08/2023	(Evaluation Officer) Central Ground Water Authority	(Evaluation Officer) Central Ground Water Authority						

NOC Processing

Receive Date	From User Name	To User Name	Forwarded User Name	Action Date	Action Internal Status	Action Comment
No Record for this Stage.						

NOC Disbursement

Receive Date	From User Name	To User Name	Forwarded User Name	Action Date	Action Internal Status	Action Comment
No Record for this Stage.						


Go Back

Application for Issue of NOC to Abstract Ground Water (NOCAF)

Logout

Applicant Home | Apply | Feedback | Change Password | Profile | Grievance | Submitted Application Payment | Revival Request | Application Pass Book | Upload Attachment

Payment Status

Application Type: Infrastructure

Application Name: ALL INDIA INSTITUTE OF MED

Current Transaction

Sr. No.	Date	Transaction Id	Payment Mode	Total Amount	Transaction Status	Remark	Payment Detail
1	21/08/2023	2108230027605	Combined	10000.00	FAILED		View
2	21/08/2023	2108230022875	Combined	10000.00	FAILED		View
3	21/08/2023	2108230023480	Combined	10000.00	SUCCESS		View
4	05/07/2023	0307230011049	Combined	240000.00	FAILED		View
5	05/07/2023	0307230011423	Combined	240000.00	FAILED		View
6	05/07/2023	0307230031455	Combined	451000.00	FAILED		View
7	05/07/2023	0307230032475	Combined	441430.00	FAILED		View
8	05/07/2023	0307230033774	Combined	441430.00	FAILED		View
9	05/07/2023	0307230033991	Combined	441430.00	FAILED		View
10	05/07/2023	0307230036018	Combined	441430.00	FAILED		View
11	04/07/2023	0407230006280	Combined	451430.00	FAILED		View
12	04/07/2023	0407230006770	Combined	433430.00	FAILED		View
13	04/07/2023	0407230015410	Combined	441430.00	FAILED		View
14	05/07/2023	NA	Combined	441430.00	FAILED		View
15	05/07/2023	0507230030704	Combined	441430.00	FAILED		View
16	06/07/2023	0607230012479	Combined	441430.00	FAILED		View
17	10/07/2023	1007230027900	Combined	441430.00	FAILED		View
18	10/07/2023	1007230028240	Combined	441430.00	FAILED		View
19	10/07/2023	1007230041412	Combined	441430.00	SUCCESS		View

Note: 1. PLEASE KEEP THESE INFORMATION FOR FUTURE REFERENCE
2. IF APPLICABLE PENALTY WILL BE COMMUNICATED AFTER FINAL SCRUTINY OF APPLICATION VIA EMAIL
3. PLEASE WAIT WHILE WE ARE PROCESSING YOUR PAYMENT, IT MAY TAKE UPTO 30 MINTUES
4. PAYMENT CAN BE TERMINATED FORCEFULLY BY CLICKING TERMINATE BUTTON ON VIEW PAYMENT
5. TRACK YOUR PAYMENT - CLICK HERE AND USE MOBILE NUMBER

Annexure-IX

Bio medical Authorization

Annexure-III

CTO

BIHAR STATE POLLUTION CONTROL BOARD

PariveshBhawan, Patliputra Industrial Area
P.O: Sadaquat Ashram, Patna-800010
EPABX-0612-2261250/2262265,Fax-0612-2261050
E-mail-bspcb@yahoo.com, Website -http://bspcb.bih.nic

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[Authorisation under rule 10 of the Bio-Medical Waste Management Rules, 2016]

"Form-III"

[See Rule 10]

(Authorisation for operating a facility for collection, reception, treatment, storage, transport and disposal of bio-medical wastes)

1 File number of Authorisation and date of issue: BMW/133/14 B1984 dt. 04.12.18

2. Director, All India Institute of Medical Sciences an occupier or operator of the facility located at Phulwarisharif, Patna-801507 is hereby granted an authorization for;

	Activity
✓	Generation, Segregation
	Collection,
✓	Storage
	Packaging
	Reception
	Transportation
✓	Treatment or Processing or conversion
	Recycling
✓	Disposal or Destruction
	Use
	Offering for sale, transfer
	Any other form of handling

3. M/s All India Institute of Medical Sciences, Phulwarisharif, Patna-801507 is hereby authorised for handling of bio-medical wastes as per the capacity given below:
   (i) No. of beds of HCF -200
   (ii) Quantity of bio-medical waste handled, treated or disposal:

Type of Waste Category	Quantity permitted for Handling
Yellow	: **4651.18 kg/annum**
Red	: **4894.56kg/annum**
White (Translucent)	: **752.73kg/annum**
Blue	: **1121.50kg/annum**

4. This authorisation shall be in force for a period of **five years from the date of issue**.
5. This Authorisation is subject to the conditions stated below and to such other conditions as may be specified in the rules for the time being in force the Environment (Protection) Act, 1986.

Terms and Conditions of authorization

1. The authorized shall comply with the provisions of the Environment (Protection)Act, 1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorised by the prescribed authority.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the bio-medical wastes without obtaining prior permission of the prescribed authority.
4. Any unauthorized change in personnel, equipment or working conditions as application by the person authorized shall constitute a breach of his authorisation.
5. It is the duty of the authorized person to take prior permission of the prescribed authority to close down the facility and such other terms and conditions may be stipulated by the prescribed authority.
6. **The occupier shall obtain Discharge Consent under the Water (Prevention and Control of Pollution) Act, 1974 and Emission Consent under the Air (Prevention and Control of Pollution) Act, 1981 from this Board.**
7. It is the duty of occupier to take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with these rules;
8. The Occupier shall strictly comply with the provisions of these rules and in no case they are expected to dispose of any waste on roadside or at any unauthorised place under any circumstances;

Contd..2..

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49 50

9. Provision shall be made within the premises for a safe, ventilated and secured location for storage of segregated bio-medical waste in coloured bags or containers in the manner as specified in Schedule- I, to ensure that there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported in the manner as prescribed in these rules to the common bio-medical waste treatment facility or for the appropriate treatment and disposal, as the case may be, in the manner as prescribed in Schedule- I;
10. The Occupier shall treat and dispose the bio-medical waste through Common Bio-medical Waste Treatment Facility of the area concerned i.e. (*M/s Indira Gandhi Institute of Medical Sciences, Sheikhpura, Patna- 800014)* **for** proper treatment and disposal of the bio-medical wastes;
11. Pre-treatment of the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site shall be ensured in the manner as prescribed by the World Health Organisation (WHO) or National AIDs Control Organisation (NACO) guidelines and then sent to the common bio-medical waste treatment facility for final disposal;
12. Chlorinated plastic bags, gloves and blood bags shall be phased out by the 27th of March, 2018;
13. Treated bio-medical waste shall not be given with municipal solid waste;
14. Training to all health care workers and others, involved in handling of bio-medical waste at the time of induction and there after at least once every year shall be provided and the details of training programmes conducted, number of personnel trained and number of personnel ot undergone any training shall be provided in the Annual Report;
15. All health care workers and others, involved in handling of bio-medical waste shall be immunized for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste, in the manner as prescribed in the National Immunisation Policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time;
16. Bar-Code System shall be established for bags or containers containing bio-medical waste to be sent out of the premises or place for any purpose.
17. Segregation of liquid chemical waste shall be ensured at source and pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities shall also be ensured;
18. Treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act, 1974 (6of1974) shall be ensured;
19. Occupational safety of all its health care workers and others involved in handling of bio-medical waste shall be ensured by providing appropriate and adequate personal protective equipments;
20. Health check up at the time of induction and at least once in a year shall be conducted for all its health care workers and others involve in handling of bio- medical waste and records for the same shall be maintained;
21. Bio-medical waste management register shall be maintained and updated on day to day basis and monthly record of the same shall be displayed on its website according to the bio-medical waste generated, treated and disposed in terms of category and colour coding as specified in Schedule I;
22. Major accidents, if any including accidents caused by fire hazards, blasts during handling of bio-medical waste, and the remedial action taken and the records relevant there to shall be reported, (including nil report) in Format I to the prescribed authority and also along with the annual report;
23. The Annual Report in Form IV shall be submitted to the Prescribed Authority i.e. Bihar State Pollution Control Board on or before the 30th June of every year;
24. Annual report shall also be made available on the web-site of the Unit and website of the Health Care Facility shall be made latest by the 27th of March, 2018;
25. The prescribed authority shall be informed immediately in case the operator of a facility does not collect the bio-medical waste within the intended time or as per the agreed time;
26. A system shall be established to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority and the health care establishments having less than thirty beds shall designate qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report;

Contd..3..

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27. Adequate fire protection equipment (such as smoke detectors, fire extinguishers, sand buckets, fire alarm, water sprinklers *etc.*) at salient places within the premises even at bio-medical storage area in accordance with the fire safety regulation shall be installed. Required certificate from fire safety department shall be obtained by the occupier.
28. Proper management of mercury bearing waste in environmentally sound manner shall be ensured as per the guidelines notified for the purpose by CPCB.
29. All records shall be maintained for a period of five years.

This has approval of the competent authority.

Date:

To

Director,
All India Institute of Medical Sciences,
Phulwarisharif, Patna-801507

Signature: 01/11/18
Name: Dr. Naveen Kumar
Designation: A.S.O

Annexure-X

AAIA NOC

Annexure - VII

2379/22

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

PATN/EAST/B/120622/729811

Name and address of the owner	EXECUTIVE DIRECTOR ,ALL INDIA INSTITUTE OF MEDICAL SCIENCES PATNA	**Date:**	21-12-2022
OWNER'S NAME & ADDRESS	at Medical College Building Ground Floor Phulwari Sharif AIIMS Patna 801507 Bihar	**Validity / Valid Up to:**	20-12-2030

No Objection Certificate (NOC) for Height Permission
No Objection Certificate for Height Clearance

1) This NOC is in pursuance of the obligations assigned by the Airports Authority of India (AAI) and the notification of the Government of India (Ministry of Civil Aviation) G.O. s. R. 751 (E) dated the 30th September, 2015, G.S. s. R. 770 (E) dated 17th December 2020, as amended vide G.S.R.
1. This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order GSR751 (E) dated 30th Sep.2015 amended by GSR770(E) dated 17th Dec 2020 for safe and regular Aircraft Operations.

2). This
office has no objection to the construction of the proposed structure as per the following details:

No Objection Certificate ID / NOC ID	PATN/EAST/B/120622/729811
Name of the applicant / Applicant Name*	Vinay Kumar
Site Address*	Plot No - 391 392 393 394 395 396 533 534 535 536 537 538 539 540 541 542 Thana No - 51 Thana - Danapur Mauza - Saidpura Patna Bihar,Saidpura,Patna,Bihar
Site Coordinates*	25 34 25 34 17.70n 85 02 35.56e, 25 34 19.15n 85 02 36.33e, 25 34 15.63n 85 02 36.36e, 25 34 16.59n 85 02 37.12e, 25 34 14.91n 85 02 37.57e, 25 34 16.05n 855 02 37.75E, 25 34 15.68N 85 02 38.18E, 25 34 17.34N 85 02 38.82E
Site Elevation in mtrs AMSL as submitted by Applicant*	54
Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	98.40 M (Restricted)

*** As provided by the applicant / As provided by the applicant***

3) This No Objection Certificate is subject to the following terms and conditions:-
3. **This NOC is subject to the terms and conditions as given below:**

a) The elevation and coordinates of the site provided by the applicant have been used to issue the maximum height permissible for the proposed structure. The Airports Authority of India neither accepts responsibility nor certifies the correctness of the altitude and coordinates of the site provided by the applicant. If at any stage it is found that the actual details are different from the details provided by the applicant, then this No Objection Certificate will be considered invalid and legal action will be taken. Action will be taken under the Aircraft Rules 1994 (Demolition of obstruction due to buildings, trees etc.) by the officer-in-charge of the concerned aerodrome.
a. Permissible Top elevation has been issued on the basis of Site coordinates and Site Elevation submitted by Applicant. AAI neither owns the responsibility nor authenticates the correctness of the site coordinates & site elevation provided by the applicant. If at any stage it is established that the actual data is different, this NOC will stand null and void and action will be taken as per law. The officer-in-charge of the concerned aerodrome may initiate action under the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994",

b) The location coordinates provided by the applicant in the application for No Objection Certificate have been marked on the street view map and satellite map as shown in the Annexure. The applicant / owner should ensure that the coordinates mentioned match with his location. In case of any discrepancy, a request will be made to the designated officer to cancel the NOC.
b. The Site coordinates as provided by the applicant in the NOC application have been plotted on the street view map and satellite map as shown in the Annexure. Applicant/Owner to ensure that the plotted coordinates correspond to his/her site. In case of any discrepancy, Designated Officer shall be requested for cancellation of the NOC.

c) The airport operator or his designated representative may visit the site (with prior coordination with the applicant or the owner) to ensure compliance with the No Objection Certificate terms and conditions.
c. Airport Operator or his designated representative may visit the site (with prior coordination with applicant or owner) to ensure that NOC terms & conditions are complied with.

d) The height of the structure (including super structure) shall be calculated by deducting the height of the site from the permissible maximum height (AMSL). That is, maximum height of the structure = maximum permissible height (-) height of the site.
d. The Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL ie Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.

f) Issue of NOC is subject to section 9-A of the Indian Aircraft Act, 1934 and notifications issued thereunder from time to time and the Aircraft (Demolition of Obstruction due to Buildings, Trees etc.) Rules, 1994.
e. The issue of the 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act, 1934 and any notifications issued there under from time to time including, "The Aircraft (Demolition of Obstruction caused by Buildings and Trees etc. .) Rules, 1994".

g) No radio/TV antenna, lightning arrester, ladder, pole, water tank or any other object and attachment equipment of any kind shall exceed the maximum permissible height mentioned in para 2.
f. No radio/TV Antenna, lightening arresters, staircase, Mumty, Overhead water tank or any other object and attachments of fixtures of any kind shall project above the Permissible Top Elevation as indicated in para 2.

h) Use of oil, electricity or any other fuel that does not create smoke hazard for flight operations is permitted within 8 KM of the aerodrome reference point.

g. Use of oil, electric or any other fuel which does not create smoke hazard for flight operation is obligatory, within 8 KM of the Aerodrome Reference Point

झ) यह प्रमाणपत्र इसके जारी होने की तारीख से 8 साल की अवधि के लिए वैध है। एक बार रिवेलीडेशन की अनुमति दी जा सकती है, बशर्ते कि इस तरह का अनुरोध एनओसी की समाप्ति की तारीख से छह महीने के भीतर किया जाए और प्रारंभिक प्रमाणपत्र 8 साल की वैधता अवधि के भीतर प्राप्त किया जाए ।

h. The certificate is valid for a period of 8 years from the date of its issue. One-time revalidation shall be allowed, provided that such request shall be made within six months from the date of expiry of the NOC and commencement certificate is obtained within initial validity period of 8 years.

ट) भवन के निर्माण के दौरान या उसके बाद किसी भी समय स्थल पर ऐसी कोई भी लाइट या लाइटो का संयोजन नहीं लगाया जाएगा जिसकी तीव्रता, आकृति या रंग के कारण वैमानिक ग्राउन्ड लाइटों के साथ भ्रम उत्पन्न हो । विमान के सुरक्षित प्रचालन को प्रभावित करने वाली कोई भी गतिविधि मान्य नहीं होगी |

i. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building. No activity shall be allowed which may affect the safe operations of flights.

ठ) आवेदक द्वारा विमानपत्तन पर या उसके आसपास विमान से उत्पन्न शोर, कंपन या विमान प्रचालन से हुई किसी भी क्षति के विरूद्ध कोई शिकायत/दावा नहीं किया जाएगा ।

j. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.

ड) डे मार्किंग तथा सहायक विद्युत आपूर्ति सहित नाइट लाइटिंग (डीजीसीए भारत की वेबसाइट www.dgca.nic.in पर उपलब्ध) नागर विमानन आवश्यकताएं श्रंखला 'बी' पार्ट । सैक्शन-4 के चैप्टर 6 तथा अनुलग्नक 6 में विनिर्दिष्ट दिशानिर्देशों के अनुसार उपलब्ध कराई जाएंगी ।

k. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series 'B' Part I Section 4, available on DGCA India website: www.dgca.nic.in

ढ) भवन के नक्शे के अनुमोदन सहित अन्य सभी वैधानिक अनापत्ति, संबंधित प्राधिकरणों से लेना आवेदक की जिम्मेदारी होगी, क्योंकि इस ऊँचाई हेतु अनापत्ति प्रमाणपत्र लेने का उद्देश्य सुरक्षित एवं नियमित विमान प्रचालन सुनिश्चित करना है तथा इसे भूमि के स्वामित्व आदि सहित किसी अन्य उद्देश्य/ दावे के लिए दस्तावेज के रूप में प्रयोग नहीं किया जा सकता ।

l. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans. This NOC for height clearances is only to ensure safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.

ण) इस अनापत्ति प्रमाणपत्र आईडी का मूल्यांकन Patna विमानक्षेत्रो के संबंध में किया गया है। यह अनापत्ति प्रमाणपत्र भारतीय विमान पत्तन प्राधिकरण के विमानक्षेत्रो और अन्य लाइसेंस प्राप्त सिविल विमानक्षेत्रो, जो जी. एस. आर. 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के अनुसूची - III, अनुसूची - IV (भाग- I), अनुसूची- IV (भाग -2; केवल RCS हवाई अड्डे) और अनुसूची- VII में सूचीबद्ध हैं, के लिए जारी किया गया है ।

m. This NOC ID has been assessed with respect to the Patna Airports. NOC has been issued w.r.t. the AAI

Aerodromes and other licensed Civil Aerodromes as listed in Schedule – III, Schedule – IV(Part-I), Schedule- IV (Part-2; RCS Airports Only) and Schedule-VII of GSR 751(E) amended by GSR770(E)

त) यदि स्थल रक्षा विभाग के विमान क्षेत्र के अधिकार क्षेत्र में आता है, जैसा कि जीएसआर 751 (ई) की अनुसूची-V में सूचीबद्ध है, तो आवेदक को रक्षा विभाग से अलग से अनापत्ति प्रमाणपत्र लेना होता है। जीएसआर 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के नियम 13 के अनुसार, आवेदकों को उन स्थलों के लिये, जो जीएसआर 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के अनुसूची- IV (भाग -2; आरसीएस हवाई अड्डों के अलावा) के रूप में सूचीबद्ध बिना लाइसेंस वाले विमान क्षेत्र के अधिकार क्षेत्र में आता हैं, तो संबंधित राज्य सरकार से भी अनापत्ति प्रमाणपत्र लेने की आवश्यकता है।

n. Applicant needs to seek separate NOC from Defence, if the site lies within the jurisdiction of Defence Aerodromes as listed in Schedule – V of GSR 751 E amended by GSR770(E). As per rule 13 of GSR 751 E amended by GSR770(E), applicants also need to seek NOC from the concerned state government for sites which lies in the jurisdiction of unlicensed aerodromes as listed in Schedule-IV (Part-2; other than RCS airports) of GSR 751 E amended by GSR770(E)

थ) अनापत्ति प्रमाण पत्र (एनओसी) की किसी भी त्रुटि/व्याख्या की स्थिति में अंगरेजी अनुवाद ही मान्य होगा।

o. In case of any discrepancy/interpretation of NOC letter, English version shall be valid.

द) स्थल की ऊँचाई और/या संरचना की ऊँचाई के किसी भी विवाद में अनुमन्य अधिकतम ऊँचाई एएमएसएल में ही मान्य होगी।

p. In case of any dispute with respect to site elevation and/or AGL height, Permissible Top Elevation in AMSL shall prevail.

2379/22

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

PATN/EAST/B/120622/729811

क्षेत्र का नाम / Region Name: पूर्व/EAST

पदनामित अधिकारी/Designated Officer नाम/ पदनाम/दिनांक सहित हस्ताक्षर Name/Designation/Sign with date	22/12/22 राजेन्दर सिंह [illegible] महाप्रबंधक [illegible] GM(ATM)ER भारतीय विमानपत्तन प्राधिकरण Airports Authority of India ने.सु.च.च.अं. हवाई अड्डा/NSCBI Airport कोलकाता/Kolkata 700052
द्वारा तैयार Prepared by	Basu 22.12.22
द्वारा जांचा गया Verified by	Basu 22.12.22

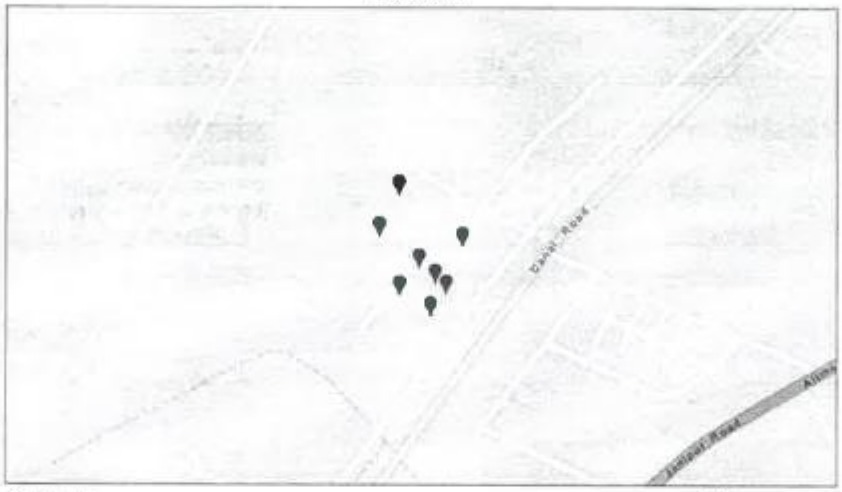
ईमेल आईडी / EMAIL ID : gmatmer@aai.aero
फोन/ Ph: 033-25111293

ANNEXURE/अनुलग्नक

Distance From Nearest Airport And Bearing/निकटतम विमानक्षेत्र से दूरी और बीयरिंग

Airport Name/ विमानक्षेत्र का नाम	Distance (Meters) from Nearest ARP/निकटतम विमानक्षेत्र संदर्भ बिंदु से दूरी (मीटर मे)	Bearing(Degree) from Nearest ARP/निकटतम विमानक्षेत्र संदर्भ बिंदु से बीयरिंग (डिग्री
Patna	5400.95	243.77
NOCID	PATN/EAST/B/120622/729811	

Street View



Satellite View



Annexure-XI

Fire NOC

Annexure-V

(171)

प्रपत्र–ञ

अन्तिम अनापत्ति प्रमाण पत्र

(बिहार अग्निशमन सेवा अधिनियम, 2014 की धारा-02 की उपधारा-(छ) के अधीन
बिहार अग्निशमन सेवा नियमावली, 2021 के नियम 15 (छ)(ii) के अन्तर्गत)

राज्य अग्निशमन पदाधिकारी-सह-निदेशक का कार्यालय, बिहार, पटना ।

(F-08/FO/2022)

पत्रांक...3536... दिनांक...08/07/2022

प्रेषक,

निदेशक-सह-राज्य अग्निशमन पदाधिकारी,
बिहार, पटना।

सेवा में,

Dr. Anil Kumar,
Medical Superintendent,
AIIMS, Patna.

प्रसंग:- आपका पत्रांक-328, दिनांक-07.03.2022
औपबंधिक अग्नि निवारण एवं अग्नि सुरक्षा अनापत्ति प्रमाण पत्र का पत्रांक-3468, दिनांक-28.09.2011

विषय:- अंतिम अग्नि निवारण एवं अग्नि सुरक्षा अनापत्ति प्रमाण पत्र हेतु ।

महाशय,

उपरोक्त प्रसंग एवं विषय के संबंध में सूचित करना है कि आपके द्वारा समर्पित भवन निर्माण पूर्णता की सूचना की जाँच आपके द्वारा संलग्न चेक लिस्ट के अनुसार राज्य अग्निशमन सेवा, बिहार, पटना के द्वारा गठित अग्नि सुरक्षा एवं निवारण स्कंध (FSPW) की संतुष्टि के उपरान्त व उक्त समिति में शामिल विशेषज्ञों की अनुशंसा के आलोक में की गयी । अग्नि सुरक्षा व्यवस्था संतोषप्रद पाए जाने की स्थिति मे निम्नलिखित शर्तों के साथ अंतिम अग्नि निवारण एवं अग्नि सुरक्षा अनापत्ति प्रमाण पत्र निर्गत किया जा रहा है:-

(1) राष्ट्रीय भवन संहिता, 2016 समय-समय पर यथा संशोधित, बिहार भवन उपविधि, 2014 **समय-समय पर यथा संशोधित**, बिहार अग्निशमन सेवा अधिनियम, 2014, बिहार अग्निशमन सेवा नियमावली, 2021, बिहार नगरपालिका अधिनियम, 2007, बिहार अपार्टमेन्ट ऑनरशीप अधिनियम, 2006, मल्टी स्टोरी भवन अधिनियम, 1981 एवं भवन श्रेणी के आलोक में तत्समय प्रवृत्त अन्य अधिनियम/ नियम/निर्देश का अनुपालन करेंगे ।

(2) औपबंधिक अग्नि निवारण एवं अग्नि सुरक्षा अनापत्ति प्रमाण पत्र से संबंधित आवेदन पत्र के साथ संलग्न चेक लिस्ट/अन्डरटेकिंग का पालन करेंगे ।

(3) भवन के चारों ओर भवन रेखा तक पहुँच हेतु न्यूनतम 6 मीटर (भवन श्रेणी एवं भवन निर्माण के अनुसार) चौड़ा रास्ता को पार्किंग बाधा/जेनरेटर/ट्रान्सफर्मर/सुरक्षा बल/डाक घर/खुदरा विक्रेता/ विविध/अन्य निर्माण/फिक्चर्स/बालकोनी की ऊँचाई 5 मीटर (विधिसम्मत यथाआवश्यक) से मुक्त रखेंगे।

(4) अधिवासियों के सुरक्षित निकासी हेतु निकास सीढ़ी की क्षमता एवं चौड़ाई राष्ट्रीय भवन संहिता, 2016 **समय-समय पर यथा संशोधित** के प्रावधानों के आलोक मे सुनिश्चित रखेंगे।

(5) आग के फैलाव को सीमित करने तथा बाहरी सीढ़ी/लिफ्ट में धुआँ का प्रवेश रोकने हेतु अग्नि प्रतिरोध दरवाजा की स्थिति सही रखेंगे ।

(6) भूतल/तलघर में पार्किंग के स्प्रींकलर पूर्ण क्रियाशील अवस्था में रखेंगे।

(7) सीढ़ी एवं लिफ्ट पूर्ण क्रियाशील अवस्था में रखेंगे।

(8) अधिष्ठापित अग्निशमन यंत्र, एलार्म आदि को संबंधित प्रावधान के आधार पर नियमित रूप से जाँच करते हुए क्रियाशील अवस्था में रखेंगे।

(9) प्रथम 2 वर्षों में त्रैमासिक तथा उसके बाद अर्द्धवार्षिक अग्नि सुरक्षा ड्रील करेंगे।

(10) आपातकालीन जेनरेटर आदि एवं संबंधित उपकरण का जाँच राष्ट्रीय भवन संहिता, 2016 **समय-समय पर यथा संशोधित** एवं आई०एस० 1644 के अनुसार करेंगे।

(11) अधिष्ठापित अग्निशमन उपकरण (राष्ट्रीय भवन संहिता, 2016 **समय-समय पर यथा संशोधित** का भाग-4 का टेबुल संख्या-7 के अनुसार)

(क) भूतल पानी टंकी की क्षमता- **2,00,000 लीटर**

(ख) छत पर पानी टंकी की क्षमता- **40,000 लीटर**

(ग) भूतल पर विद्युत/डीजल/जॉकी पम्प की क्षमता- **As per NBC**

(घ) छत पर विद्युत/अन्य पम्प की क्षमता- **As per NBC**

(ड.) स्वचालित अग्नि सूचक एवं एलार्म प्रणाली- **हाँ**

(च) हस्तचालित अग्नि एलार्म प्रणाली- **हाँ**

(छ) स्वचालित स्प्रींकलर प्रणाली- **हाँ**

(ज) हॉज रील- **हाँ**

(झ) वेट राईजर- **हाँ**

(ञ) डाउन कमर- **As per NBC**

(12) पोर्टेबल अग्निशामक यंत्रों की संख्या (प्रकार एवं क्षमता के अनुसार अलग-अलग)- **As per NBC**

(13) दृष्टिगोचर स्थलों पर निकासी रास्ता दिखाते हुए निकास योजना का प्रदर्शन करेंगे ।

(14) अग्नि सुरक्षा पदाधिकारी (भवन श्रेणी के अनुसार) रखेंगे ।

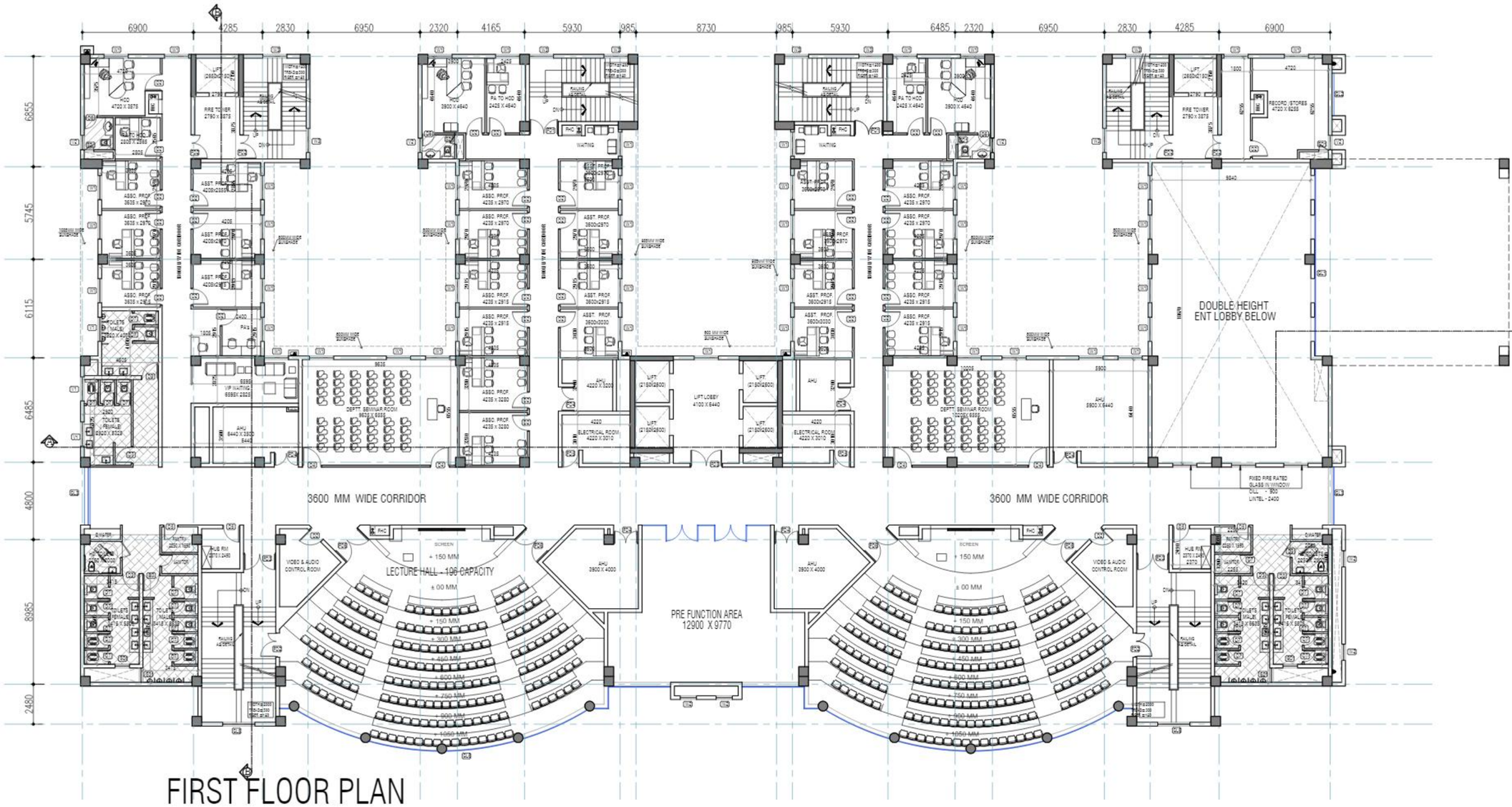
(15) अग्नि नियंत्रण कक्ष।

(16) भवन श्रेणी में किसी प्रकार का परिवर्तन किए जाने की स्थिति में नए सिरे से अनापत्ति प्रमाण पत्र प्राप्त करना होगा ।

निदेशक-सह-राज्य अग्निशमन पदाधिकारी,
बिहार, पटना

Annexure-XII

Floor Plan



FIRST FLOOR PLAN

LECTURE HALLS AND

OFFICE SPACES FOR HOD,ASSOCIATE PROFESSORS,ASSISTANT PROFESSORS)

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NOTE

- ALL DIMENSIONS ARE IN MM
- ALL LEVELS ARE IN M



KEY PLAN

NOTE

" THE REFERENCE DRAWING IS PURELY INDICATIVE & SOLELY MEANT TO PORTRAY THE SCOPE & QUANTUM OF WORKS INVOLVED AT AIIMS CAMPUS & RESIDENTIAL COMPLEX, PATNA . ANY CAPACITY/ QUANTITY OF ITEMS SHOWN IN TENDER DRAWINGS ARE ALSO INDICATIVE. TENDER DRAWINGS SHALL NOT BE CONSTRUED AS GOOD FOR CONSTRUCTION DRAWINGS.

THE EPC CONTRACTOR SHALL HIMSELF ASSESS THE ACTUAL CAPACITY/ QUANTITIES OF ITEMS AS PER FUNCTIONAL & STATUTORY REQUIREMENTS AT SITE & GET THE GOOD FOR CONSTRUCTION DRAWINGS APPROVED FROM HITES BEFORE COMMENCEMENT OF ANY WORKS. "

SUNKEN LEGEND

	SLAB TO BE SUNKEN BY 450MM FROM TOC
	SLAB TO BE SUNKEN BY 150 MM FROM TOC

LEGEND (ACADEMIC BLOCK)

DOOR OPENINGS SCHEDULE

S.NO.	TYPE	WIDTH	HEIGHT	LINTEL	CILL
1	D1	1500	2400	2400	00
2	D2	1050	2400	2400	00
3	D3	1050	2400	2400	00
4	D4	1200	2400	2400	00
5	D5	900	2400	2400	00
6	D6	800	2400	2400	00
7	D7	750	2100	2100	00
8	D8	2000	2400	2400	00
9	D9	1800	2400	2400	00
10	D10	1500	2400	2400	00
11	D11	1000	2400	2400	00
12	FD1	1800	2400	2400	00
12	FD2	1500	2400	2400	00
13.	FD3	2000	2400	2400	00
14.	FD4	1500	2400	2400	00
15.	FD5	1200	2400	2400	00
16.	FD6	2000	2400	2400	00
17.	RS1	3000	3000	3000	00

WINDOW & VENTILATION OPENINGS SCHEDULE

S.NO.	TYPE	WIDTH	HEIGHT	LINTEL	CILL
1.	W1	1500	1900	2800	900
2.	W2	1000	1900	2800	900
3.	V1	1500	1900	2800	900
4.	V2	900	1900	2800	900
5.	SD1	900	1950	2100	150

STRUCTURAL GLAZING SCHEDULE

S.NO.	TYPE	WIDTH	CILL	LINTEL
1.	GL1	11630	AS/ ELEVATION	
2.	GL2	2640	AS/ ELEVATION	
3.	GL3	3600	AS/ ELEVATION	
4.	GL4	23900	AS/ ELEVATION	
5.	GL5	2000	AS/ ELEVATION	
6.	GL6	22000	AS/ ELEVATION	

NOTE -

REFER FINISHING SCHEDULE AND DETAIL FOR ALL DOOR /WINDOWS/STRUCTURAL GLAZING SPECIFICATION AND TYPE OF FRAMES AND SHUTTER

EXECUTING AGENCY

HITES

HLL INFRATECH SERVICES LIMITED

B-14A , SEC -62 , NOIDA (U.P.) - 201301 INDIA

ARCHITECT

ACHAL KATARIA ARCHITECTS

E-15 ,FIRST FLOOR,
N.D.S.E. - I, NEW DELHI - 110 049.
PH. - 24620911, 24620910
FAX - 91 (11) 24640911

PROJECT

CONSTRUCTION OF RESIDENTIAL QUARTERS, ACADEMIC BLOCK AT AIIMS, PATNA, BIHAR

CHIEF ARCHITECT | CLIENT

TENDER DRAWING

BUILDING TYPE: ACADEMIC BLOCK

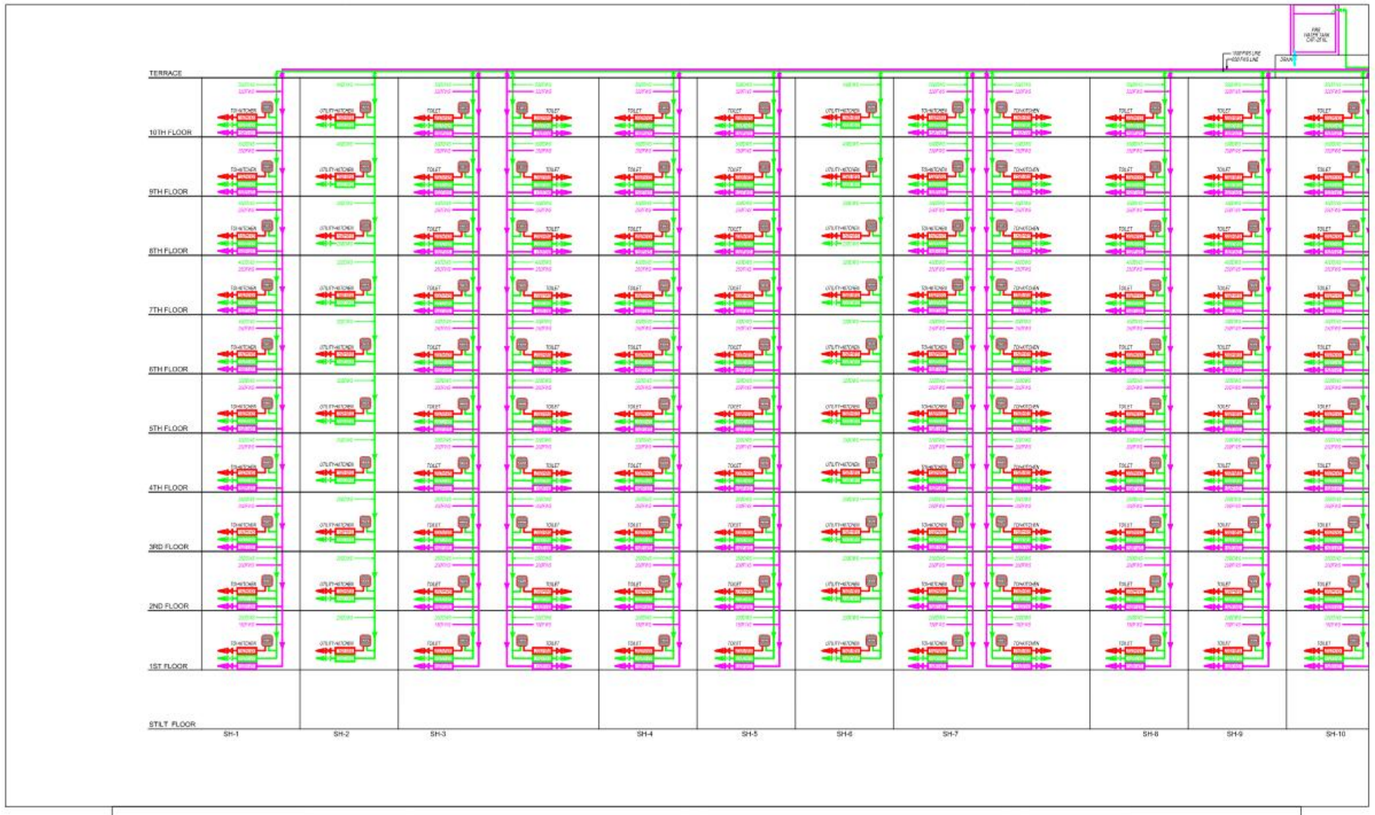
DRAWING TITLE: FIRST FLOOR PLAN

DRAWING NUMBER: 102-AR-AC-003

SCALE : | SHEET SIZE : A2

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Annexure-XIII
Plumbing Plan

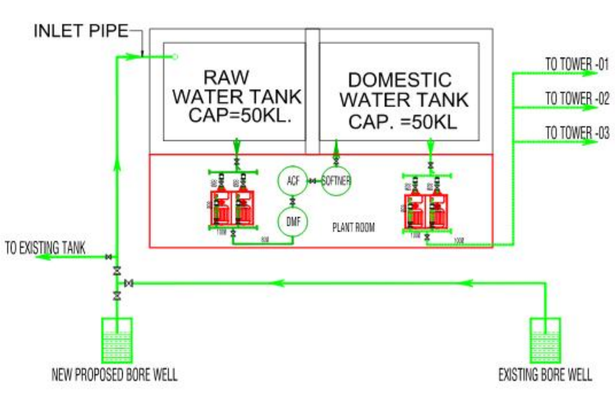




TOWER -1

SLD LEGEND :-	
DWS	DOMESTIC WATER SUPPLY LINE
DWS	FLUSHING WATER SUPPLY LINE
HWS	HOT WATER SUPPLY LINE
GEYSER	GEYSER

UG. TANK SCHEMATIC DIAGRAM



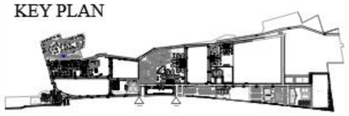
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NOTE

* ALL DIMENSIONS ARE IN MM
* ALL LEVELS ARE IN M

KEY PLAN



OWNER'S SIGNATURE -

ARCHITECT'S SIGNATURE -

ACHAL KUMAR
CA-76/2822

EXECUTING AGENCY

HITES
HLL INFRA TECH SERVICES LTD

HLL INFRATECH SERVICES LIMITED
B-14A , SEC -62 , NOIDA (U.P.) - 201301 INDIA

ARCHITECT

ACHAL KATARIA ARCHITECTS
E-15 ,FIRST FLOOR,
N.D.S.E. - I, NEW DELHI - 110 049.
PH. - 24620911, 24620910
FAX - 91 (11) 24640911

PROJECT

CONSTRUCTION OF RESIDENTIAL QUARTERS, ACADEMIC BLOCK
AT AIIMS, PATNA, BIHAR

BUILDING TYPE:
HOUSING BLOCK TOWER 1

DRAWING TITLE:
WATER SUPPLY SLD LAYOUT

DRAWING NUMBER:
104-AR-HO-SLD-WS-019 (R1)

SCALE : NTS | SHEET SIZE : A2 | SHEET NO :

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Annexure-XIV

CCOE Approval

Annexure - IX
Annexure-3

CCOE Approval

समाहरणालय, पटना
सामान्य शाखा

फोन नं० : 0612-2219545 (फा०)
फैक्स नं० : 2219500
Email : sdcpatnageneralsection@gmail.com
dm-patna.bih@nic.in

अनापत्ति प्रमाण पत्र

ऑल इंडिया इन्सटीच्युट ऑफ मेडिकल साईन्सेज (एम्स) के अन्दर मौजा–भुसौला दानापुर, सर्वे प्लॉट संख्या–1698(अंश), 1699(अंश), 1706 एवं 1705 थाना–फुलवारीशरीफ, जिला–पटना पर डीजल स्टोरेज स्थापित करने हेतु (1) वरीय पुलिस अधीक्षक, पटना (2) अनुमण्डल पदाधिकारी, पटना सदर (3) अंचलाधिकारी, फुलवारीशरीफ (4) अग्निशाम पदाधिकारी, फुलवारीशरीफ एवं (5) कार्यपालक अभियंता एम्स, पटना एवं (6) प्रभारी निदेशक, पटना महानगर क्षेत्र प्राधिकार, पटना से प्राप्त प्रतिवेदन के आलोक में कतिपय निम्नांकित शर्तों पर अनापत्ति प्रमाण–पत्र दी जाती है:–

01 संलग्न नक्शा एवं प्लान के अनुसार पथ निर्माण विभाग के जमीन का उपयोग मात्र डीजल स्टोरेज के पहुँच पथ के लिए की जाएगी।

02 पानी निकासी हेतु फर्म द्वारा आर0सीसी0 पुलिया, प0नि0वि0 के मानक एवं विशिष्टियों के अनुसार बनाया जायेगा।

03 पहुँच पथ के निर्माण में वृक्ष पातन की आवश्यकता हो, तो वन प्रमण्डल विभाग से अनुमति प्राप्त करना अनिवार्य होगा।

04 संबंधित डीजल स्टोरेज की नक्शा की प्रति आवश्यक कार्रवाई हेतु मूल में लौटाई जाती है।

05 भविष्य में व्यवसायिक दर वृद्धि होने पर अंचलाधिकारी से पुनः मूल्यांकन कराया जायेगा और राशि जमा कराया जाएगा।

06 परिसर के अन्दर तथा उपर कोई भी "हाईटेंशन वायर" नहीं ले जाया जायेगा।

07 सभी फायर एक्सटीपोर्टेबुल अग्निशामक यंत्रों की स्थापना I.S. 2190/1992 के अनुरुप किया जाए।

08 अग्निसुरक्षा के दृष्टिकोण से 15 मीटर की दूरी पर कोई आवासीय परिसर, शिक्षण संस्थान, धार्मिक संस्थान, ईट चिमनी भट्ठा नहीं होने चाहिए।

09 प्रत्येक डिलीवरी प्वाईन्ट एवं इलेक्ट्रीक पैनल बोर्ड के समीप सुरक्षा कारणों से पर्याप्त मात्रा में अग्निशमन यंत्रों को रखना आवश्यक होगा।

10 डीजल स्टोरेज परिसर में जगह–जगह "नो स्मोकिंग" का बोर्ड तथा स्थानीय फायर स्टेशन का दूरभाष नं0 तथा इमरजेन्सी नं0–101 दर्शाया जाय।

11 अन्य व्यवस्था पेट्रोलियम रूल 1934 एवं उस पर बनाये गये नियम तथा एक्सप्लोसिव एक्ट 1884/1908 तथा उस पर लगाये गये नियम के अनुकूल रखा जाय।

12 डीजल स्टोरेज स्थल का प्रवेश–निकास द्वार कभी भी अवरूद्ध नही किया जाय।

13 एक फायर ट्रेड स्टाफ की प्रतिनियुक्ति की जाय। सुरक्षा की दृष्टिकोण से कम से कम 15 मीटर की दूरी तक कोई भी आवासीय या एसेम्बली भवन नहीं हो।

14 सभी कर्मचारियों को अग्निशामक यंत्रों को संचालन की जानकारी दी जाय।

15 डीजल स्टोरेज प्लांट पर नियमानुकूल क्या करें और क्या नहीं करें की तख्ती रखी जाय।

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16 डीजल स्टोरेज के कमिशनींग के पूर्व अग्निशामालय पदाधिकारी, पटना से निरीक्षण कराना होगा।

17 वर्ष में एक बार अग्निशामन यंत्रों का निरीक्षण कराना आवश्यक है।

18 प्रस्तावित भूमि घनी आवादी से 500 मीटर की दूरी पर होने चाहिए।

19 डीजल स्टोरेज टैंक का उपयोग केवल Emergency Service Continue करने के लिए की जायेगी। इसका प्रयोग बिक्री वितरण एवं व्यवसायिक के लिए नहीं किया जायेगा।

20 डीजल स्टोरेज आउटलेट की स्थापना निर्धारित मानक तथा अनुमोदित नक्शे के अनुरूप करेंगे।

21 प्रभारी निदेशक, पटना महानगर क्षेत्र प्राधिकार, पटना के पत्रांक–26 दिनांक–05.02.2020 द्वारा निर्गत पत्र के आलोक में सभी शर्तो का अनुपालन करना होगा।

ह0/–
जिलाधिकारी,
पटना।

ज्ञापांक–68–10/2017 455 /सा0, पटना दिनांक– 15/02/20

प्रतिलिपि :– कार्यपालक अभियंता, एम्स पटना के पत्र संदर्भ के क्रम में सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित। प्रस्तावित स्थल का नक्शा अधोहस्ताक्षरी द्वारा अनुमोदित है जो संलग्न है।

Office of The District Magistrate Patna (Bihar)

11/2/20
जिलाधिकारी,
पटना।

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Annexure-XV

Lab Reports

ENVIRO-TECH SERVICES

An Analytical Laboratory

ISO 45001

ETS-LAB

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5010/05/2023

DATE OF REPORT :10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling : 15.05.2023
Analysis Start Date : 17.05.2023
Analysis End Date : 20.05.2023
Sample ID No : 5010
Sampling Done By : ETS STAFF
Sampling Description : GROUND WATER
Sampling Location : GW-1 PROJECT SITE-1
Sampling Method : ETS/STP/WATER-01
Sampling Quantity : 2.0 +0.5 Lt.
Packing Condition : SEALED
Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.47	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	449.6	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	148.3	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	247.1	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	94.3	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	51.7	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	41.92	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.34	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.23	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.24	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.08	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	24.5	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.64	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5010/05/2023

DATE OF REPORT :10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	671.04	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	20.24	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	48.20	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Pushkar Mittal
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5011/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15.05.2023
Analysis Start Date	:	17.05.2023
Analysis End Date	:	20.05.2023
Sample ID No	:	5011
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-2 PROJECT SITE-2
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.61	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	300.3	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	144.2	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	251.8	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	81.7	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	66.5	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	34.15	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	0.76	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.35	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.12	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.07	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	21.9	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.08	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)

For Enviro-Tech Services

Pushkar Mittal

AUTHORIZED SIGNATORY

Lab In-charge

CHECKED BY
SHRADDHA GUPTA

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TEST REPORT

TEST REPORT NO :ETS/5011/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	448.2	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	22.41	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	54.08	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Aashkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5012/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	18.05.2023
Analysis Start Date	:	20.05.2023
Analysis End Date	:	23.05.2023
Sample ID No	:	5012
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-3UNDER 500-METER IN DOWNWIND
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.35	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	533.3	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	218.5	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	331.9	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	132.8	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	90.9	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	36.67	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	0.90	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.30	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.20	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.11	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	28.4	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.66	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	795.0	Not Specified	Not Specified	APHA-2510

ENVIRO-TECH SERVICES ETS-LAB

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5012/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	21.75	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	48.72	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

For Enviro-Tech Services

Pushkar Mittal

AUTHORIZED SIGNATORY

Lab In-Charge

CHECKED BY SHRADDHA GUPTA

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ENVIRO-TECH SERVICES

An Analytical Laboratory

ISO 45001

(A GOVERNMENT APPROVED LAB)

ETS-LAB

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5013/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20.05.2023
Analysis Start Date	:	22.05.2023
Analysis End Date	:	25.05.2023
Sample ID No	:	5013
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-4PROJECT SITE (13 HA.)
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.42	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	563.5	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	213.2	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	267.6	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	112.2	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	47.5	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	54.38	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.31	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.25	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.43	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.03	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	36.1	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.80	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Pushkar Mittal
Lab In-charge

Format no ETS /LAB/TR-09 Issue No 04 dt 01/08/2019 Rev No 03 dt 01/06/2019

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TEST REPORT

TEST REPORT NO :ETS/5013/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	841.8	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	20.24	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	43.65	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5014/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)

Date of Sampling : 20.05.2023
Analysis Start Date : 22.05.2023
Analysis End Date : 25.05.2023
Sample ID No : 5014
Sampling Done By : ETS STAFF
Sampling Description : GROUND WATER
Sampling Location : GW-5UNDER 500 METER IN DOWNWIND (13 HA.)
Sampling Method : ETS/STP/WATER-01
Sampling Quantity : 2.0 +0.5 Lt.
Packing Condition : SEALED
Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.25	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	554.9	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	190.7	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	369.1	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	110.4	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	88.7	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	38.07	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.08	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.30	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.08	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)

ENVIRO-TECH SERVICES ETS-LAB

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Pushkar Mittal
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5014/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.10	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	37.8	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.43	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	828.5	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	24.41	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	44.29	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

ENVIRO-TECH SERVICES ETS-LAB

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For Enviro-Tech Services

Tushkar Mittal
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5015/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	22.05.2023
Analysis Start Date	:	24.05.2023
Analysis End Date	:	26.05.2023
Sample ID No	:	5015
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-6HARDASPURA
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	8.27	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	461.6	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	208.7	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	343.2	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	95.4	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	88.0	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	46.14	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.46	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.33	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.11	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.14	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	30.3	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.67	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5015/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	688.7	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	26.16	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	46.04	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
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For Enviro-Tech Services
Pushkar Mittal
Lab In-charge
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TEST REPORT

TEST REPORT NO :ETS/5015/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	688.7	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	26.16	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	46.04	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
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For Enviro-Tech Services

Pushkar Mittal
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5016/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	24.05.2023
Analysis Start Date	:	26.05.2023
Analysis End Date	:	30.05.2023
Sample ID No	:	5016
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-7CHAK BHUSUALA MOSQUE
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.64	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	358.0	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	131.5	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	246.9	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	64.1	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	64.3	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	38.85	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.38	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.29	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.87	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.11	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	21.2	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.53	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge
AUTHORIZED SIGNATORY

CHECKED BY
SHRADDHA GUPTA

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An Analytical Laboratory

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email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5016/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	534.1	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	21.31	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	50.57	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

ENVIRO-TECH SERVICES LAB

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5017/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)

Date of Sampling : 24.05.2023
Analysis Start Date : 26.05.2023
Analysis End Date : 30.05.2023
Sample ID No : 5017
Sampling Done By : ETS STAFF
Sampling Description : GROUND WATER
Sampling Location : GW-8DWARIKAPURI,KHAGAUL SANDALPUR
Sampling Method : ETS/STP/WATER-01
Sampling Quantity : 2.0 +0.5 Lt.
Packing Condition : SEALED
Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.47	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	467.9	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	142.9	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	296.8	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	56.1	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	74.5	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	39.63	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.47	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.26	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	1.09	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.18	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	27.9	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.58	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Vij
Lab In-charge
AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO :ETS/5017/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	698.9	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	22.10	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	51.91	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Nath
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO : ETS/5018/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	24.05.2023
Analysis Start Date	:	26.05.2023
Analysis End Date	:	30.05.2023
Sample ID No	:	5018
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-9NAWADA
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.36	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	511.8	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	175.8	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	346.3	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	101.8	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	81.8	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	35.11	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.00	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.28	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.08	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.095	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	34.9	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.40	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO : ETS/5018/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	763.8	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	22.5	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	40.9	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

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TEST REPORT

TEST REPORT NO :ETS/5019/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling : 24.05.2023
Analysis Start Date : 26.05.2023
Analysis End Date : 30.05.2023
Sample ID No : 5019
Sampling Done By : ETS STAFF
Sampling Description : GROUND WATER
Sampling Location : GW-1 MUHAMMADPUR KORJI,BIHAR
Sampling Method : ETS/STP/WATER-01
Sampling Quantity : 2.0 +0.5 Lt.
Packing Condition : SEALED
Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.70	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	425.8	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	192.5	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	339.8	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	88.0	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	79.7	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	42.56	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.35	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.30	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.10	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.133	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	37.1	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.62	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	635.5	Not Specified	Not Specified	APHA-2510

For Enviro-Tech Services

CHECKED BY
SHRADDHA GUPTA

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO : ETS/5018/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	763.8	Not Specified	Not Specified	APHA-2510
31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	22.5	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	40.9	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

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TEST REPORT

TEST REPORT NO :ETS/5019/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	24.05.2023
Analysis Start Date	:	26.05.2023
Analysis End Date	:	30.05.2023
Sample ID No	:	5019
Sampling Done By	:	ETS STAFF
Sampling Description	:	GROUND WATER
Sampling Location	:	GW-1 MUHAMMADPUR KORJI,BIHAR
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Drinking Water Standards / Limit (IS:10500 2012)		Test Method
				Desirable	Permissible	
1.	Colour	Hazen	<5.0	5	15	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.70	6.5 - 8.5	No Relaxation	IS:3025 (Pt-11)
4.	Taste	---	Agreeable	Agreeable	Agreeable	IS:3025 (Pt-8)
5.	Turbidity	NTU	<1.0	1	5	IS:3025 (Pt-10)
6.	Total Dissolve Solid (TDS)	mg/L	425.8	500	2000	IS:3025 (Pt-16)
7.	Total Alkalinity ($CaCO_3$)	mg/L	192.5	200	600	IS:3025 (Pt-23)
8.	TotalHardness(CaCO3)	mg/L	339.8	200	600	IS:3025 (Pt-21)
9.	Chloride (Cl)	mg/L	88.0	250	1000	IS:3025 (Pt-32)
10.	Calcium (Ca)	mg/L	79.7	75	200	IS:3025 (Pt-40)
11.	Mineral Oil	mg/L	<0.01	0.5	No Relaxation	IS:3025 (Pt-39)
12.	Sulphate (SO_4)	mg/L	42.56	200	400	IS:3025 (Pt-24)
13.	Nitrate (NO_3)	mg/L	1.35	45	No Relaxation	IS:3025 (Pt-34)
14.	Fluoride (F)	mg/L	0.30	1	1.5	IS:3025 (Pt-60)
15.	Iron (Fe)	mg/L	0.10	0.3	No Relaxation	IS:3025 (Pt-53)
16.	Aluminium (Al)	mg/L	<0.02	0.03	0.2	APHA-3500 (B)
17.	Selenium (Se)	mg/L	<0.01	0.01	No. Relaxation	APHA-3113 (B)
18.	Cyanide (Cn)	mg/L	<0.01	0.05	No. Relaxation	APHA-4500 (C)
19.	Copper(Cu)	mg/L	0.133	0.05	1.5	APHA-3111(B)
20.	Magnesium (Mg)	mg/L	37.1	30	100	IS:3025 (Pt-45)
21.	Manganese(Mn)	mg/L	<0.1	0.1	0.3	APHA-3111(B)
22.	Zinc(Zn)	mg/L	0.62	5	15	APHA-3111 (B)
23.	Cadmium(Cd)	mg/L	<0.001	0.003	No. Relaxation	APHA-3111 (B)
24.	Lead(Pb)	mg/L	<0.01	0.01	No. Relaxation	APHA-3111 (B)
25.	Mercury(Hg)	mg/L	<0.001	0.001	No. Relaxation	APHA-3112 (B)
26.	Nickel (Ni)	mg/L	<0.01	0.02	No. Relaxation	APHA-3111 (B)
27.	Arsenic(As)	mg/L	<0.01	0.01	0.05	APHA-3500 (B)
28.	Chromium (Cr+6)	mg/L	<0.01	0.05	No. Relaxation	APHA-3500 Cr-B
29.	Phenolic Compound (C6H5OH)	mg/L	<0.001	0.001	0.002	APHA-5530
30.	Conductivity (25 °C)	mhos/cm	635.5	Not Specified	Not Specified	APHA-2510

For Enviro-Tech Services

CHECKED BY
SHRADDHA GUPTA

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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ENVIRO-TECH SERVICES

An Analytical Laboratory

ISO 45001

ETS-LAB

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email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5019/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

31.	E. Coli	Coli/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
32.	Total Coliform	MPN/100ml	Absent	Shall Not Be Detectable		IS:1622-1981
33.	Temperature	°C	24.1	Not Specified	Not Specified	IS:3025 (Pt-9)
34.	Sodium (Na)	mg/L	42.5	Not Specified	Not Specified	APHA-3500 (Na)
35.	FecalColiform	MPN/100ml	Absent	Shall Not Be Detectable		APHA-9221

****End of Test Report****

ENVIRO-TECH SERVICES ETS-LAB

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TEST REPORT

TEST REPORT NO :ETS/5020/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15.05.2023
Analysis Start Date	:	17.05.2023
Analysis End Date	:	20.05.2023
Sampling Done By	:	ETS STAFF
Sampling Description	:	SURFACE WATER
Sampling Location	:	SW-1GANGA RIVER
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Test Method
1.	Colour	Hazen	<5.0	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.56	IS:3025 (Pt-11)
4.	Turbidity	NTU	10.2	IS:3025 (Pt-10)
5.	Total Dissolve Solid (TDS)	mg/L	356.4	IS:3025 (Pt-16)
6.	Total Alkalinity ($CaCO_3$)	mg/L	150.9	IS:3025 (Pt-23)
7.	TotalHardness(CaCO3)	mg/L	278.4	IS:3025 (Pt-21)
8.	Chloride (Cl)	mg/L	48.7	IS:3025 (Pt-32)
9.	Calcium (Ca)	mg/L	67.0	IS:3025 (Pt-40)
10.	Mineral Oil	mg/L	<0.01	IS:3025 (Pt-39)
11.	Sulphate (SO_4)	mg/L	38.8	IS:3025 (Pt-24)
12.	Nitrate (NO_3)	mg/L	1.80	IS:3025 (Pt-34)
13.	Fluoride (F)	mg/L	0.12	IS:3025 (Pt-60)
14.	Iron (Fe)	mg/L	0.23	IS:3025 (Pt-53)
15.	Aluminium(Al)	mg/L	<0.01	APHA-3500 (B)
16.	Selenium (Se)	mg/L	<0.01	APHA-3113 (B)
17.	Cyanide (Cn)	mg/L	<0.02	APHA-4500 (C)
18.	Copper(Cu)	mg/L	<0.05	APHA-3111(B)
19.	Magnesium (Mg)	mg/L	27.6	IS:3025 (Pt-45)
20.	Manganese(Mn)	mg/L	<0.1	APHA-3111(B)
21.	Zinc(Zn)	mg/L	0.75	APHA-3111 (B)
22.	Cadmium(Cd)	mg/L	<0.001	APHA-3111 (B)
23.	Lead(Pb)	mg/L	<0.01	APHA-3111 (B)
24.	Boron	Mg/L	<0.05	IS:3026(Pt-57)
25.	Mercury(Hg)	mg/L	<0.001	APHA-3112 (B)
26.	Molybdenum(mo)	mg/L	<0.05	IS:3025(Pt-2)
27.	Nickel (Ni)	mg/L	<0.01	APHA-3111 (B)
28.	Arsenic(As)	mg/L	<0.01	APHA-3500 (B)
29.	Chromium (Cr+6)	mg/L	<0.01	APHA-3500 Cr-B
30.	Conductivity (25 °C)	µs/Cm	531.8	APHA-2510

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5020/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

31.	Chemical Oxygen Demand (COD)	mg/L	18.1	APHA-5220 (B)
32.	Biological Oxygen Demand (BOD at 27°C for 3 day)	mg/L	3.10	APHA-4500 (D)
33.	Dissolve Oxygen (DO)	mg/L	5.95	APHA-5210
34.	E. Coli	MPN/100ml	570	IS:1622-1981
35.	Total Coliform	MPN/100ml	1800	IS:1622-1981
36.	Faecal Coliform	MPN/100ml	1040	APHA-9221

****End of Test Report****

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TEST REPORT

TEST REPORT NO :ETS/5021/11/2023 DATE OF REPORT : 20.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15.05.2023
Analysis Start Date	:	17.05.2023
Analysis End Date	:	20.05.2023
Sampling Done By	:	ETS STAFF
Sampling Description	:	SURFACE WATER
Sampling Location	:	SW-2POND, NEORA
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Test Method
1.	Colour	Hazen	<5.0	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	IS:3025 (Pt-5)
3.	pH	---	8.17	IS:3025 (Pt-11)
4.	Turbidity	NTU	12.1	IS:3025 (Pt-10)
5.	Total Dissolve Solid (TDS)	mg/L	521.6	IS:3025 (Pt-16)
6.	Total Alkalinity ($CaCO_3$)	mg/L	174.7	IS:3025 (Pt-23)
7.	TotalHardness(CaCO3)	mg/L	283.4	IS:3025 (Pt-21)
8.	Chloride (Cl)	mg/L	127.1	IS:3025 (Pt-32)
9.	Calcium (Ca)	mg/L	82.5	IS:3025 (Pt-40)
10.	Mineral Oil	mg/L	<0.01	IS:3025 (Pt-39)
11.	Sulphate (SO_4)	mg/L	64.9	IS:3025 (Pt-24)
12.	Nitrate (NO_3)	mg/L	4.55	IS:3025 (Pt-34)
13.	Fluoride (F)	mg/L	0.64	IS:3025 (Pt-60)
14.	Iron (Fe)	mg/L	0.19	IS:3025 (Pt-53)
15.	Aluminium (Al)	mg/L	<0.01	APHA-3500 (B)
16.	Selenium (Se)	mg/L	<0.01	APHA-3113 (B)
17.	Cyanide (Cn)	mg/L	<0.02	APHA-4500 (C)
18.	Copper(Cu)	mg/L	<0.05	APHA-3111(B)
19.	Magnesium (Mg)	mg/L	21.0	IS:3025 (Pt-45)
20.	Manganese(Mn)	mg/L	<0.1	APHA-3111(B)
21.	Zinc(Zn)	mg/L	0.53	APHA-3111 (B)
22.	Cadmium(Cd)	mg/L	<0.001	APHA-3111 (B)
23.	Lead(Pb)	mg/L	<0.01	APHA-3111 (B)
24.	Boron	Mg/L	<0.05	IS:3026(Pt-57)
25.	Mercury(Hg)	mg/L	<0.001	APHA-3112 (B)

CHECKED BY
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For Enviro-Tech Services

AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5021/11/2023

DATE OF REPORT : 20.06.2023

WATERSAMPLE ANALYSIS REPORT

26.	Molybdenum(mo)	mg/L	<0.05	IS:3025(Pt-2)
27.	Nickel (Ni)	mg/L	<0.01	APHA-3111 (B)
28.	Arsenic(As)	mg/L	<0.01	APHA-3500 (B)
29.	Chromium (Cr+6)	mg/L	<0.01	APHA-3500 Cr-B
30.	Conductivity (25 °C)	µs/Cm	778.2	APHA-2510
31.	Chemical Oxygen Demand (COD)	mg/L	23.6	APHA-5220 (B)
32.	Biological Oxygen Demand (BOD at 27°C for 3 day)	mg/L	3.18	APHA-4500 (D)
33.	Dissolve Oxygen (DO)	mg/L	6.71	APHA-5210
34.	E. Coli	MPN/100ml	260	IS:1622-1981
35.	Total Coliform	MPN/100ml	920	IS:1622-1981
36.	Faecal Coliform	MPN/100ml	470	APHA-9221

****End of Test Report****

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TEST REPORT

TEST REPORT NO :ETS/5022/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)

Date of Sampling : 20.05.2023
Analysis Start Date : 22.05.2023
Analysis End Date : 25.05.2023
Sampling Done By : ETS STAFF
Sampling Description : SURFACE WATER
Sampling Location : SW-3POND, BHUSAULA DANAPUR CHAK
Sampling Method : ETS/STP/WATER-01
Sampling Quantity : 2.0 +0.5 Lt.
Packing Condition : SEALED
Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Test Method
1.	Colour	Hazen	<5.0	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.37	IS:3025 (Pt-11)
4.	Turbidity	NTU	14.6	IS:3025 (Pt-10)
5.	Total Dissolve Solid (TDS)	mg/L	437.7	IS:3025 (Pt-16)
6.	Total Alkalinity ($CaCO_3$)	mg/L	193.4	IS:3025 (Pt-23)
7.	TotalHardness(CaCO3)	mg/L	281.8	IS:3025 (Pt-21)
8.	Chloride (Cl)	mg/L	90.3	IS:3025 (Pt-32)
9.	Calcium (Ca)	mg/L	73.6	IS:3025 (Pt-40)
10.	Mineral Oil	mg/L	<0.01	IS:3025 (Pt-39)
11.	Sulphate (SO_4)	mg/L	29.5	IS:3025 (Pt-24)
12.	Nitrate (NO_3)	mg/L	1.21	IS:3025 (Pt-34)
13.	Fluoride (F)	mg/L	0.36	IS:3025 (Pt-60)
14.	Iron (Fe)	mg/L	0.13	IS:3025 (Pt-53)
15.	Aluminium (Al)	mg/L	<0.01	APHA-3500 (B)
16.	Selenium (Se)	mg/L	<0.01	APHA-3113 (B)
17.	Cyanide (Cn)	mg/L	<0.02	APHA-4500 (C)
18.	Copper(Cu)	mg/L	<0.05	APHA-3111(B)
19.	Magnesium (Mg)	mg/L	24.4	IS:3025 (Pt-45)
20.	Manganese(Mn)	mg/L	<0.1	APHA-3111(B)
21.	Zinc(Zn)	mg/L	0.49	APHA-3111 (B)
22.	Cadmium(Cd)	mg/L	<0.001	APHA-3111 (B)
23.	Lead(Pb)	mg/L	<0.01	APHA-3111 (B)
24.	Boron	Mg/L	<0.05	IS:3026(Pt-57)
25.	Mercury(Hg)	mg/L	<0.001	APHA-3112 (B)
26.	Molybdenum(mo)	mg/L	<0.05	IS:3025(Pt-2)
27.	Nickel (Ni)	mg/L	<0.01	APHA-3111 (B)
28.	Arsenic(As)	mg/L	<0.01	APHA-3500 (B)
29.	Chromium (Cr+6)	mg/L	<0.01	APHA-3500 Cr-B
30.	Conductivity (25 °C)	µs/Cm	673.8	APHA-2510

CHECKED BY
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For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5022/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

31.	Chemical Oxygen Demand (COD)	mg/L	16.4	APHA-5220 (B)
32.	Biological Oxygen Demand (BOD at 27°C for 3 day)	mg/L	4.34	APHA-4500 (D)
33.	Dissolve Oxygen (DO)	mg/L	5.40	APHA-5210
34.	E. Coli	MPN/100ml	340	IS:1622-1981
35.	Total Coliform	MPN/100ml	1160	IS:1622-1981
36.	Faecal Coliform	MPN/100ml	630	APHA-9221

****End of Test Report****

CHECKED BY
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TEST REPORT

TEST REPORT NO :ETS/5023/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15.05.2023
Analysis Start Date	:	17.05.2023
Analysis End Date	:	20.05.2023
Sampling Done By	:	ETS STAFF
Sampling Description	:	SURFACE WATER
Sampling Location	:	SW-4MANIK CHAND TALAB, ANISHABAD
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Test Method
1.	Colour	Hazen	<5.0	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	IS:3025 (Pt-5)
3.	pH	---	8.15	IS:3025 (Pt-11)
4.	Turbidity	NTU	18.0	IS:3025 (Pt-10)
5.	Total Dissolve Solid (TDS)	mg/L	610.6	IS:3025 (Pt-16)
6.	Total Alkalinity ($CaCO_3$)	mg/L	218.2	IS:3025 (Pt-23)
7.	TotalHardness(CaCO3)	mg/L	346.8	IS:3025 (Pt-21)
8.	Chloride (Cl)	mg/L	135.3	IS:3025 (Pt-32)
9.	Calcium (Ca)	mg/L	104.5	IS:3025 (Pt-40)
10.	Mineral Oil	mg/L	<0.01	IS:3025 (Pt-39)
11.	Sulphate (SO_4)	mg/L	69.1	IS:3025 (Pt-24)
12.	Nitrate (NO_3)	mg/L	2.65	IS:3025 (Pt-34)
13.	Fluoride (F)	mg/L	0.32	IS:3025 (Pt-60)
14.	Iron (Fe)	mg/L	0.20	IS:3025 (Pt-53)
15.	Aluminium (Al)	mg/L	<0.01	APHA-3500 (B)
16.	Selenium (Se)	mg/L	<0.01	APHA-3113 (B)
17.	Cyanide (Cn)	mg/L	<0.02	APHA-4500 (C)
18.	Copper(Cu)	mg/L	<0.05	APHA-3111(B)
19.	Magnesium (Mg)	mg/L	22.4	IS:3025 (Pt-45)
20.	Manganese(Mn)	mg/L	<0.1	APHA-3111(B)
21.	Zinc(Zn)	mg/L	0.48	APHA-3111 (B)
22.	Cadmium(Cd)	mg/L	<0.001	APHA-3111 (B)
23.	Lead(Pb)	mg/L	<0.01	APHA-3111 (B)
24.	Boron	Mg/L	<0.05	IS:3026(Pt-57)
25.	Mercury(Hg)	mg/L	<0.001	APHA-3112 (B)
26.	Molybdenum(mo)	mg/L	<0.05	IS:3025(Pt-2)
27.	Nickel (Ni)	mg/L	<0.01	APHA-3111 (B)
28.	Arsenic(As)	mg/L	<0.01	APHA-3500 (B)
29.	Chromium (Cr+6)	mg/L	<0.01	APHA-3500 Cr-B
30.	Conductivity (25 °C)	µs/Cm	911.3	APHA-2510

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

Format no ETS /LAB/TR-09 Issue No 04 dt 01/06/2019 Rev No 03 dt 01/06/2019

Note:-

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ENVIRO-TECH SERVICES

An Analytical Laboratory

ISO 45001

ETS-LAB

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5023/05/2023 DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

31.	Chemical Oxygen Demand (COD)	mg/L	20.1	APHA-5220 (B)
32.	Biological Oxygen Demand (BOD at 27^{D}C for 3 day)	mg/L	4.80	APHA-4500 (D)
33.	Dissolve Oxygen (DO)	mg/L	5.90	APHA-5210
34.	E. Coli	MPN/100ml	130	IS:1622-1981
35.	Total Coliform	MPN/100ml	570	IS:1622-1981
36.	Faecal Coliform	MPN/100ml	250	APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5024/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15.05.2023
Analysis Start Date	:	17.05.2023
Analysis End Date	:	20.05.2023
Sampling Done By	:	ETS STAFF
Sampling Description	:	SURFACE WATER
Sampling Location	:	SW-5GANESH SHIV MANDIR,TALAB
Sampling Method	:	ETS/STP/WATER-01
Sampling Quantity	:	2.0 +0.5 Lt.
Packing Condition	:	SEALED
Packed In	:	P.V.C. AND GLASS BOTTLE

S. No.	Test Parameters	Unit	Result	Test Method
1.	Colour	Hazen	<5.0	IS:3025 (Pt-4)
2.	Odour	---	Agreeable	IS:3025 (Pt-5)
3.	pH	---	7.65	IS:3025 (Pt-11)
4.	Turbidity	NTU	14.0	IS:3025 (Pt-10)
5.	Total Dissolve Solid (TDS)	mg/L	543.1	IS:3025 (Pt-16)
6.	Total Alkalinity ($CaCO_3$)	mg/L	217.4	IS:3025 (Pt-23)
7.	TotalHardness(CaCO3)	mg/L	394.2	IS:3025 (Pt-21)
8.	Chloride (Cl)	mg/L	121.6	IS:3025 (Pt-32)
9.	Calcium (Ca)	mg/L	115.3	IS:3025 (Pt-40)
10.	Mineral Oil	mg/L	<0.01	IS:3025 (Pt-39)
11.	Sulphate (SO_4)	mg/L	96.0	IS:3025 (Pt-24)
12.	Nitrate (NO_3)	mg/L	3.45	IS:3025 (Pt-34)
13.	Fluoride (F)	mg/L	0.34	IS:3025 (Pt-60)
14.	Iron (Fe)	mg/L	0.28	IS:3025 (Pt-53)
15.	Aluminium (Al)	mg/L	<0.01	APHA-3500 (B)
16.	Selenium (Se)	mg/L	<0.01	APHA-3113 (B)
17.	Cyanide (Cn)	mg/L	<0.02	APHA-4500 (C)
18.	Copper(Cu)	mg/L	<0.05	APHA-3111(B)
19.	Magnesium (Mg)	mg/L	26.4	IS:3025 (Pt-45)
20.	Manganese(Mn)	mg/L	<0.1	APHA-3111(B)
21.	Zinc(Zn)	mg/L	0.35	APHA-3111 (B)
22.	Cadmium(Cd)	mg/L	<0.001	APHA-3111 (B)
23.	Lead(Pb)	mg/L	<0.01	APHA-3111 (B)
24.	Boron	Mg/L	<0.05	IS:3026(Pt-57)
25.	Mercury(Hg)	mg/L	<0.001	APHA-3112 (B)
26.	Molybdenum(mo)	mg/L	<0.05	IS:3025(Pt-2)
27.	Nickel (Ni)	mg/L	<0.01	APHA-3111 (B)

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY
Lab In-charge

Note:-

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ETS-LAB

ENVIRO-TECH SERVICES

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ISO 45001

TEST REPORT

TEST REPORT NO :ETS/5024/05/2023

DATE OF REPORT : 10.06.2023

WATERSAMPLE ANALYSIS REPORT

28.	Arsenic(As)	mg/L	<0.01	APHA-3500 (B)
29.	Chromium (Cr+6)	mg/L	<0.01	APHA-3500 Cr-B
30.	Conductivity (25 °C)	µs/Cm	835.3	APHA-2510
31.	Chemical Oxygen Demand (COD)	mg/L	23.1	APHA-5220 (B)
32.	Biological Oxygen Demand (BOD at 27°C for 3 day)	mg/L	3.57	APHA-4500 (D)
33.	Dissolve Oxygen (DO)	mg/L	5.90	APHA-5210
34.	E. Coli	MPN/100ml	210	IS:1622-1981
35.	Total Coliform	MPN/100ml	790	IS:1622-1981
36.	Faecal Coliform	MPN/100ml	390	APHA-9221

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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TEST REPORT

TEST REPORT NO :ETS/5025/05/2023

DATE OF REPORT : 10-06-2023

SOILSAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15-05-2023
Analysis Start Date	:	18-05-2023
Analysis End Date	:	22-05-2023
Sample ID No	:	ETS/SL-5025
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-1PROJECT SITE-1
Sampling Quantity	:	2 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	60.3	IS:2720 (Pt-4)
3.	Silt	%	33.6	IS:2720 (Pt-4)
4.	Clay	%	16.1	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.73	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	33.5	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	365.8	IS:14767
8.	Water Holding Capacity(WHC)	%	40.9	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	162.8	APHA-3055B
10.	Calcium (Ca)	mg/kg	1100.3	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	578.9	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.88	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	243.4	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	68.1	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	276.9	APHA-3055B
16.	Organic Matter	%	1.18	IS : 2720 (P-22)
17.	Organic Carbon	%	0.95	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	2.08	IS:3025(P-24)
19.	Porosity	%	21.6	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Ashok Mittal
Lab Incharge
AUTHORIZED SIGNATORY

Note:-

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Format No. ETS/LAB/F-100, Issue No. 05, Dated: 01.04.2019, Amd. No. 04 Date 01.04.2019

ETS-LAB

ENVIRO-TECH SERVICES

An Analytical Laboratory

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Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

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TEST REPORT

TEST REPORT NO :ETS/5026/05/2023

DATE OF REPORT :10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15-05-2023
Analysis Start Date	:	18-05-2023
Analysis End Date	:	22-05-2023
Sample ID No	:	ETS/SL-5026
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-2PROJECT SITE-2
Sampling Quantity	:	2 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	62.3	IS:2720 (Pt-4)
3.	Silt	%	18.3	IS:2720 (Pt-4)
4.	Clay	%	19.4	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.70	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	37.3	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	357.0	IS:14767
8.	Water Holding Capacity(WHC)	%	44.0	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	152.9	APHA-3055B
10.	Calcium (Ca)	mg/kg	1165.4	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	594.0	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	178.8	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	63.4	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	279.8	APHA-3055B
16.	Organic Matter	%	1.10	IS : 2720 (P-22)
17.	Organic Carbon	%	2.18	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	2.42	IS:3025(P-24)
19.	Porosity	%	27.8	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services
Pushkar Mittal
In Charge
AUTHORIZED SIGNATORY

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ISO 45001

TEST REPORT

TEST REPORT NO :ETS/5027/05/2023

DATE OF REPORT :10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15-05-2023
Analysis Start Date	:	18-05-2023
Analysis End Date	:	22-05-2023
Sample ID No	:	ETS/SL-5027
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-3UNDER 500-METER IN DOWNWIND-1
Sampling Quantity	:	2 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	50.1	IS:2720 (Pt-4)
3.	Silt	%	26.1	IS:2720 (Pt-4)
4.	Clay	%	23.8	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	8.34	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	31.1	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	337.5	IS:14767
8.	Water Holding Capacity(WHC)	%	41.6	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	161.1	APHA-3055B
10.	Calcium (Ca)	mg/kg	1054.1	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	548.8	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	2	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	186.7	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	56.3	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	301.2	APHA-3055B
16.	Organic Matter	%	1.19	IS : 2720 (P-22)
17.	Organic Carbon	%	2.75	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.66	IS:3025(P-24)
19.	Porosity	%	25.8	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

Page 1 of 1

For Enviro-Tech Services

Pushkar Mittal

AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO :ETS/5028/05/2023 DATE OF REPORT :10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	15-05-2023
Analysis Start Date	:	18-05-2023
Analysis End Date	:	22-05-2023
Sample ID No	:	ETS/SL-5028
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-4PROJECT SITE (13 HA.)
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	....	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	58.3	IS:2720 (Pt-4)
3.	Silt	%	30.0	IS:2720 (Pt-4)
4.	Clay	%	11.7	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.35	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	35.7	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	357.8	IS:14767
8.	Water Holding Capacity(WHC)	%	35.2	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	134.5	APHA-3055B
10.	Calcium (Ca)	mg/kg	1083.0	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	491.0	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.5	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	168.5	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	52.6	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	264.3	APHA-3055B
16.	Organic Matter	%	1.06	IS : 2720 (P-22)
17.	Organic Carbon	%	2.22	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.77	IS:3025(P-24)
19.	Porosity	%	19.0	IS 13030

****End of Test Report****

For Enviro-Tech Services

CHECKED BY
SHRADDHA GUPTA

AUTHORIZED SIGNATORY

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3. No complaint will be entertained after 7 days. Format No. ETS/LAB/F-02, Issue No. 06, Date 01.04.2019, Amd. No. 04 Date 01.04.2019
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TEST REPORT

TEST REPORT NO :ETS/5029/05/2023 DATE OF REPORT :10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5029
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-5 UNDER 500-METER IN DOWNWIND(13 HA.)
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	52.6	IS:2720 (Pt-4)
3.	Silt	%	27.2	IS:2720 (Pt-4)
4.	Clay	%	20.2	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.91	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	34.6	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	419.6	IS:14767
8.	Water Holding Capacity(WHC)	%	44.4	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	172.5	APHA-3055B
10.	Calcium (Ca)	mg/kg	1073.6	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	574.2	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.3	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	125.1	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	62.0	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	295.8	APHA-3055B
16.	Organic Matter	%	1.13	IS : 2720 (P-22)
17.	Organic Carbon	%	1.96	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.59	IS:3025(P-24)
19.	Porosity	%	24.8	IS 13030

****End of Test Report****

ENVIRO-TECH ETS-LAB

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
In Charge

AUTHORIZED SIGNATORY

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ENVIRO-TECH SERVICES

An Analytical Laboratory

ISO 45001

(A GOVERNMENT APPROVED LAB)

ETS-LAB

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO :ETS/5030/05/2023 DATE OF REPORT :10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5030
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-6 HARDASPURA
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	63.5	IS:2720 (Pt-4)
3.	Silt	%	22.2	IS:2720 (Pt-4)
4.	Clay	%	14.3	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.23	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	22.1	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	327.0	IS:14767
8.	Water Holding Capacity(WHC)	%	37.3	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	141.3	APHA-3055B
10.	Calcium (Ca)	mg/kg	1070.1	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	537.0	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	2.2	IS 2386 (Part-4)
13.	Total Nitrogen (PO4)	mg/kg	251.5	APHA,Pt 4500:(N)
14.	Phosphorus (P)	mg/kg	74.2	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	311.4	APHA-3055B
16.	Organic Matter	%	1.13	IS : 2720 (P-22)
17.	Organic Carbon	%	1.79	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.07	IS:3025(P-24)
19.	Porosity	%	14.6	IS 13030

****End of Test Report****

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge

AUTHORIZED SIGNATORY

CHECKED BY
SHRADDHA GUPTA

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ETS-LAB

ENVIRO-TECH SERVICES

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TEST REPORT

TEST REPORT NO :ETS/5031/05/2023

DATE OF REPORT : 10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5031
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-7 BHUSAULA DANAPUR CHAK
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	55.1	IS:2720 (Pt-4)
3.	Silt	%	24.1	IS:2720 (Pt-4)
4.	Clay	%	20.8	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	8.24	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	35.4	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	377.4	IS:14767
8.	Water Holding Capacity(WHC)	%	36.6	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	156.4	APHA-3055B
10.	Calcium (Ca)	mg/kg	1210.9	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	537.5	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.8	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	219.6	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	77.4	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	373.6	APHA-3055B
16.	Organic Matter	%	1.06	IS : 2720 (P-22)
17.	Organic Carbon	%	3.53	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	2.13	IS:3025(P-24)
19.	Porosity	%	18.1	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro Tech Services

Pushkar Mittal
Lab In-Charge

AUTHORIZED SIGNATORY

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ENVIRO-TECH SERVICES

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TEST REPORT

TEST REPORT NO :ETS/5032/05/2023

DATE OF REPORT : 10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5032
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-8 DWARIKAPURI, KHAGAULSANDALPUR
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	64.3	IS:2720 (Pt-4)
3.	Silt	%	24.5	IS:2720 (Pt-4)
4.	Clay	%	11.2	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	8.11	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	29.4	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	339.4	IS:14767
8.	Water Holding Capacity(WHC)	%	49.2	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	186.6	APHA-3055B
10.	Calcium (Ca)	mg/kg	1178.2	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	451.2	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.4	IS 2386 (Part-4)
13.	Total Nitrogen (PO4)	mg/kg	191.8	APHA,Pt 4500:(N)
14.	Phosphorus (P)	mg/kg	66.5	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	357.7	APHA-3055B
16.	Organic Matter	%	0.98	IS : 2720 (P-22)
17.	Organic Carbon	%	1.82	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.64	IS:3025(P-24)
19.	Porosity	%	15.8	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO :ETS/5033/05/2023

DATE OF REPORT : 10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5033
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-9NAWADA NEAR AGRICULTURE LAND
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	57.1	IS:2720 (Pt-4)
3.	Silt	%	22.8	IS:2720 (Pt-4)
4.	Clay	%	20.1	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.17	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	34.8	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	332.5	IS:14767
8.	Water Holding Capacity(WHC)	%	40.9	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	142.4	APHA-3055B
10.	Calcium (Ca)	mg/kg	1085.4	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	553.3	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.29	IS 2386 (Part-4)
13.	Total Nitrogen (N)	mg/kg	166.5	APHA,Pt 4500:(N)
14.	Phosphorus (PO4)	mg/kg	59.1	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	260.6	APHA-3055B
16.	Organic Matter	%	1.03	IS : 2720 (P-22)
17.	Organic Carbon	%	2.03	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	2.25	IS:3025(P-24)
19.	Porosity	%	25.9	IS 13030

****End of Test Report****

CHECKED BY:
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge
AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO :ETS/5034/05/2023

DATE OF REPORT : 10-06-2023

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Sampling	:	20-05-2023
Analysis Start Date	:	23-05-2023
Analysis End Date	:	25-05-2023
Sample ID No	:	ETS/SL-5034
Sampling Done By	:	ETS STAFF
Sampling& Testing Method	:	ETS/LAB/SOIL-01
Sampling Location	:	SQ-10MUHAMMADPUR KORJI NEAR AGRICULTURE LAND
Sampling Quantity	:	2.0 kg.
Packing Condition	:	SEALED
Packed In	:	ZIP POLLY BAG

S. No.	Test Parameters	Unit	Result	Test Method
1.	Texture	...	Sandy Clay Loam	IS:2720 (Pt-4)
2.	Sand	%	63.6	IS:2720 (Pt-4)
3.	Silt	%	24.4	IS:2720 (Pt-4)
4.	Clay	%	12.0	IS:2720 (Pt-4)
5.	pH (1:2 Suspension)	..	7.77	IS:2720 (Pt-26)
6.	Cation Exchange Capacity(CEC)	meq/100	29.0	IS:2720 (Pt-24)
7.	Electrical Conductivity (1:2)	µmho/cm	314.4	IS:14767
8.	Water Holding Capacity(WHC)	%	38.8	IS 2720 (Part-2)
9.	Sodium (Na)	mg/kg	150.0	APHA-3055B
10.	Calcium (Ca)	mg/kg	981.7	IS 2720 (Part-23)
11.	Magnesium (Mg)	mg/kg	511.1	ETS/STP/SOIL-08
12.	Bulk Density	g/cm^3	1.58	IS 2386 (Part-4)
13.	Total Nitrogen (PO4)	mg/kg	173.9	APHA,Pt 4500:(N)
14.	Phosphorus (P)	mg/kg	52.4	ETS/STP/SOIL-19
15.	Potassium (K)	mg/kg	280.5	APHA-3055B
16.	Organic Matter	%	1.11	IS : 2720 (P-22)
17.	Organic Carbon	%	2.57	BS 1377 -3)
18.	Sulphate as (SO_4)	mg/kg	1.55	IS:3025(P-24)
19.	Porosity	%	22.6	IS 13030

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services
Poshkar
Lab In-charge

AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO : ETS/5035/05/2023

DATE OF REPORT : 10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	15-05-2023
Monitoring Start Date	:	15-05-2023
Monitoring End Date	:	16-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-1 PROJECT SITE-1
Category Of Area	:	SILENCE ZONE
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	48.5	50	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	34.3	40	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge

CHECKED BY
SHRADDHA GUPTA

AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO : ETS/5036/05/2023

DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	15-05-2023
Monitoring Start Date	:	15-05-2023
Monitoring End Date	:	16-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-2PROJECT SITE-2
Category Of Area	:	SILENCE ZONE
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	46.8	50	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	35.3	40	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO : ETS/5037/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	18-05-2023
Monitoring Start Date	:	18-05-2023
Monitoring End Date	:	19-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-3UNDER 500-METER IN DOWNWIND-1
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	52.6	55	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	38.1	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
In charge
AUTHORIZED SIGNATORY

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ETS-LAB

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TEST REPORT

TEST REPORT NO : ETS/5038/05/2023

DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	18-05-2023
Monitoring Start Date	:	18-05-2023
Monitoring End Date	:	19-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-4 SILENCE ZONE (13 HA.)
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	48.1	50	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	36.7	40	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

For Enviro-Tech Services

Rashkar Mittal
Lab In-charge

CHECKED BY
SHRADDHA GUPTA

AUTHORIZED SIGNATORY

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TEST REPORT

TEST REPORT NO : ETS/5039/05/2023

DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	20-05-2023
Monitoring Start Date	:	20-05-2023
Monitoring End Date	:	21-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-5 UNDER 500 METER IN DOWNWIND (13 HA.)
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	46.5	55	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	37.7	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Lab Incharge
AUTHORIZED SIGNATORY

Note:-

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
2. The results indicated only refer to the tested samples and listed applicable parameters.
3. No complaint will be entertained if received after 7 days of issue of test report.
4. Our liability is limited to invoice value only.
5. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
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ETS-LAB

ENVIRO-TECH SERVICES

An Analytical Laboratory

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Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO : ETS/5040/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	24-05-2023
Monitoring Start Date	:	24-05-2023
Monitoring End Date	:	25-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-6HARDASPURA
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	52.4	55	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	36.5	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

Note:-

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TEST REPORT

TEST REPORT NO : ETS/5041/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	25-05-2023
Monitoring Start Date	:	25-05-2023
Monitoring End Date	:	26-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-7CHAK BHUSUALA MOSQUE
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	47.6	55	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	34.1	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge
AUTHORIZED SIGNATORY

Note:-

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TEST REPORT

TEST REPORT NO : ETS/5042/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	25-05-2023
Monitoring Start Date	:	25-05-2023
Monitoring End Date	:	26-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-8 DWARIKAPURI KHAGAUL SANDALPUR
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1.	Noise Level Day Time	Leq :dB (A)	51.8	55	IS: 9989
2.	Noise Level Night Time	Leq :dB (A)	40.1	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

Format No ETS/LAB/TR-02, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Note:-

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
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TEST REPORT

TEST REPORT NO : ETS/5043/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	25-05-2023
Monitoring Start Date	:	25-05-2023
Monitoring End Date	:	26-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-9 NAWADA
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
3.	Noise Level Day Time	Leq :dB (A)	50.3	55	IS: 9989
4.	Noise Level Night Time	Leq :dB (A)	38.1	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Rishkar Mittal

AUTHORIZED SIGNATORY

Note:-

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ENVIRO-TECH SERVICES

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TEST REPORT

TEST REPORT NO : ETS/5044/05/2023 DATE OF REPORT :10-06-2023

NOISE MONITORING REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Date of Monitoring	:	25-05-2023
Monitoring Start Date	:	25-05-2023
Monitoring End Date	:	26-05-2023
Monitoring Done By	:	ETS STAFF
Monitoring Duration	:	24.0 HOURS
Place Of Monitoring	:	NQ-10 MUHAMMADPUR KORJI, BIHAR
Category Of Area	:	RESIDENTIAL AREA
Sampling Method	:	ETS/LAB/NOISE-01

S. No.	Test Parameters	Unit	Result	Specification/Limit (As per CPCB)	Test Method
3.	Noise Level Day Time	Leq :dB (A)	47.8	55	IS: 9989
4.	Noise Level Night Time	Leq :dB (A)	35.1	45	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Lab In-charge

AUTHORIZED SIGNATORY

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CHECKED BY
SHRADDHA GUPTA

Lab In-charge

AUTHORIZED SIGNATORY

Format No ETS/LAB/TR-02, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

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TEST REPORT

TEST REPORT NO : ETS/5045/03/2023 DATE OF REPORT : 10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 05-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-1PROJECT SITE-1
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	01.03.2023	ETS/SL-001	219.8	128.5	7.4	60.6	0.82
2	04.03.2023	ETS/SL-008	176.9	109.9	3.8	42.6	0.72
3	08.03.2023	ETS/SL-015	157.8	101.9	4.2	26.4	0.72
4	11.03.2023	ETS/SL-022	140.7	81.7	4.4	44.9	0.67
5	15.03.2023	ETS/SL-029	180.9	102.3	7.6	80.5	0.64
6	18.03.2023	ETS/SL-036	179.8	110.0	5.4	18.3	0.87
7	22.03.2023	ETS/SL-043	95.4	36.9	4.2	32.5	0.49
8	25.03.2023	ETS/SL-050	245.4	123.5	7.6	48.2	0.87
9	01.04.2023	ETS/SL-057	75.6	45.4	13.4	41.4	0.36
10	04.04.2023	ETS/SL-064	141.2	67.3	17.4	81.5	0.64
11	08.04.2023	ETS/SL-071	180.9	76.7	19.9	91.4	0.37
12	11.04.2023	ETS/SL-078	178.8	71.8	21.2	154.5	0.50
13	15.04.2023	ETS/SL-085	213.9	99.2	22.5	144.3	0.68
14	18.04.2023	ETS/SL-092	172.0	84.8	19.4	131.9	0.50
15	22.04.2023	ETS/SL-099	83.2	49.7	7.1	69.8	0.27
16	25.04.2023	ETS/SL-106	109.7	68.5	4.2	90.5	0.91
17	01.05.2023	ETS/SL-113	86.2	54.8	6.6	47.3	0.46
18	04.05.2023	ETS/SL-120	85.6	42.3	6.3	60.7	0.41
19	08.05.2023	ETS/SL-127	191.8	73.6	15.0	117.5	0.60
20	11.05.2023	ETS/SL-134	194.2	105.7	17.6	149.7	0.90
21	15.05.2023	ETS/SL-141	151.9	50.7	10.9	68.0	0.35
22	18.05.2023	ETS/SL-148	109.3	46.8	8.7	66.2	0.40
23	22.05.2023	ETS/SL-155	130.3	51.5	11.7	24.8	0.26
24	25.05.2023	ETS/SL-162	123.9	58.1	11.9	39.7	0.50
		Minimum	75.6	36.9	3.8	18.3	0.26
		Maximum	245.4	128.5	22.5	154.5	0.91
		Average	151.1	76.7	10.8	72.2	0.58
		98 Percentile	233.6	126.2	21.9	152.3	0.90

****End of Test Report****

For Enviro-Tech Services

Hushkar Mittal
Lab In-charge

AUTHORIZED SIGNATORY

CHECKED BY
SHRADDHA GUPTA

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TEST REPORT

TEST REPORT NO : ETS/5046/03/2023 DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Analysis Start Date	:	07-03-2023
Analysis End Date	:	30-05-2023
Sampling Done By	:	ETS STAFF
Sampling Location	:	AAQ-2PROJECT SITE-2
Sampling Method	:	AS PER CPCB GUIDELINES
Sampling Machine Placed At Height	:	1.5 MTR. (FROM GROUND)
Weather Condition	:	CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	03.03.2023	ETS/SL-002	197.2	113.9	12.6	50.2	0.61
2	06.03.2023	ETS/SL-009	178.1	99.0	12.7	36.9	0.53
3	10.03.2023	ETS/SL-016	125.3	79.3	9.9	37.6	0.48
4	13.03.2023	ETS/SL-023	199.5	121.5	12.5	64.4	0.86
5	17.03.2023	ETS/SL-030	197.6	99.6	13.3	21.8	0.60
6	20.03.2023	ETS/SL-037	149.8	70.8	9.1	26.7	0.56
7	24.03.2023	ETS/SL-044	228.8	94.0	9.2	53.5	0.86
8	27.03.2023	ETS/SL-051	128.4	56.9	15.8	35.3	0.33
9	03.04.2023	ETS/SL-058	124.0	61.3	28.2	84.7	0.50
10	06.04.2023	ETS/SL-065	183.8	81.7	17.5	110.8	0.39
11	10.04.2023	ETS/SL-072	199.0	101.2	21.6	159.7	0.53
12	13.04.2023	ETS/SL-079	218.4	83.5	25.7	158.1	0.56
13	17.04.2023	ETS/SL-086	227.8	109.7	23.6	183.9	0.77
14	20.04.2023	ETS/SL-093	226.7	100.9	24.7	118.6	0.50
15	24.04.2023	ETS/SL-100	114.6	52.4	11.1	54.4	0.25
16	27.04.2023	ETS/SL-107	193.8	122.8	8.4	99.0	0.54
17	03.05.2023	ETS/SL-114	173.7	66.4	9.9	78.4	0.49
18	06.05.2023	ETS/SL-121	164.0	62.4	20.4	109.6	0.38
19	10.05.2023	ETS/SL-128	188.4	79.8	18.4	144.7	0.57
20	13.05.2023	ETS/SL-135	185.6	82.8	23.1	82.5	0.46
21	17.05.2023	ETS/SL-142	161.1	78.8	11.4	79.4	0.39
22	20.05.2023	ETS/SL-149	169.3	90.1	20.9	59.0	0.45
23	24.05.2023	ETS/SL-156	96.7	46.3	23.7	32.2	0.33
24	27.05.2023	ETS/SL-163	77.0	30.8	24.1	45.2	0.41
Minimum			77.0	30.8	8.4	21.8	0.25
Maximum			228.8	122.8	28.2	183.9	0.86
Average			171.2	82.8	17.0	80.3	0.51
98 Percentile			228.4	122.2	27.1	172.8	0.86

****End of Test Report****

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CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Laboratory Manager

AUTHORIZED SIGNATORY

ENVIRO-TECH SERVICES

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email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO : ETS/5047/03/2023 DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 05-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-3UNDER 500 METER IN DOWNWIND 1
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	01.03.2023	ETS/SL-003	193.5	109.6	11.4	46.9	0.95
2	04.03.2023	ETS/SL-010	174.8	95.3	11.5	34.5	0.83
3	08.03.2023	ETS/SL-017	122.9	76.3	8.9	35.1	0.83
4	11.03.2023	ETS/SL-024	195.8	116.9	11.3	60.2	0.77
5	15.03.2023	ETS/SL-031	193.9	95.8	12.0	27.2	0.74
6	18.03.2023	ETS/SL-038	147.0	68.1	8.3	25.0	1.01
7	22.03.2023	ETS/SL-045	224.6	90.5	8.3	50.0	0.56
8	25.03.2023	ETS/SL-052	126.0	54.7	14.3	33.0	1.01
9	01.04.2023	ETS/SL-059	121.7	59.0	25.6	79.1	0.42
10	04.04.2023	ETS/SL-066	180.4	78.6	18.2	103.6	0.74
11	08.04.2023	ETS/SL-073	195.3	97.4	20.5	149.3	0.43
12	11.04.2023	ETS/SL-080	214.3	80.3	12.6	147.7	0.58
13	15.04.2023	ETS/SL-087	223.6	105.5	23.6	171.9	0.79
14	18.04.2023	ETS/SL-094	222.4	97.1	22.4	110.9	0.57
15	22.04.2023	ETS/SL-101	112.4	50.4	10.0	50.8	0.31
16	25.04.2023	ETS/SL-108	190.2	118.2	5.6	92.5	1.05
17	01.05.2023	ETS/SL-115	170.5	63.9	8.9	73.3	0.53
18	04.05.2023	ETS/SL-122	160.9	60.0	15.2	102.4	0.47
19	08.05.2023	ETS/SL-129	184.9	76.8	17.3	135.2	0.70
20	11.05.2023	ETS/SL-136	182.1	79.7	20.9	77.1	1.04
21	15.05.2023	ETS/SL-143	158.0	75.8	10.3	74.2	0.41
22	18.05.2023	ETS/SL-150	166.1	86.7	18.9	55.1	0.46
23	22.05.2023	ETS/SL-157	94.9	44.6	21.5	30.1	0.30
24	25.05.2023	ETS/SL-164	75.5	29.6	21.9	42.2	0.57
Minimum			75.5	29.6	5.6	25.0	0.30
Maximum			224.6	118.2	25.6	171.9	1.05
Average			168.0	79.6	15.0	75.3	0.67
98 Percentile			224.1	117.6	24.7	161.5	1.05

****End of Test Report****

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Laboratory Incharge
AUTHORIZED SIGNATORY

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ENVIRO-TECH SERVICES

An Analytical Laboratory

ETS-LAB

(A GOVERNMENT APPROVED LAB)

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email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

ISO 45001

TEST REPORT

TEST REPORT NO : ETS/5048/03/2023 DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 07-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-4PROJECT SITE (13 HA.)
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	03.03.2023	ETS/SL-004	178.8	101.3	7.9	43.3	0.64
2	06.03.2023	ETS/SL-011	161.4	88.0	8.0	31.9	0.55
3	10.03.2023	ETS/SL-018	113.5	70.5	6.2	32.5	0.50
4	13.03.2023	ETS/SL-025	180.9	108.0	7.8	55.6	0.90
5	17.03.2023	ETS/SL-032	179.1	88.5	8.3	18.8	0.63
6	20.03.2023	ETS/SL-039	135.8	62.9	9.1	23.1	0.58
7	24.03.2023	ETS/SL-046	207.4	83.6	6.8	46.2	0.90
8	27.03.2023	ETS/SL-053	116.4	50.5	9.9	30.5	0.35
9	03.04.2023	ETS/SL-060	112.4	54.5	9.8	73.1	0.52
10	06.04.2023	ETS/SL-067	166.6	72.6	11.5	95.7	0.40
11	10.04.2023	ETS/SL-074	180.4	89.9	18.0	137.9	0.55
12	13.04.2023	ETS/SL-081	198.0	74.2	12.3	136.5	0.58
13	17.04.2023	ETS/SL-088	206.5	97.5	16.5	158.8	0.80
14	20.04.2023	ETS/SL-095	205.5	89.7	8.6	102.4	0.51
15	24.04.2023	ETS/SL-102	103.9	46.6	7.2	47.0	0.26
16	27.04.2023	ETS/SL-109	175.7	109.2	10.4	85.4	0.56
17	03.05.2023	ETS/SL-116	157.5	59.0	9.3	67.7	0.51
18	06.05.2023	ETS/SL-123	148.7	55.4	10.6	94.6	0.39
19	10.05.2023	ETS/SL-130	170.8	71.0	10.7	124.9	0.59
20	13.05.2023	ETS/SL-137	168.2	73.6	8.1	71.2	0.48
21	17.05.2023	ETS/SL-144	146.0	70.1	6.3	68.5	0.40
22	20.05.2023	ETS/SL-151	153.5	80.1	7.3	50.9	0.47
23	24.05.2023	ETS/SL-158	87.6	41.2	8.3	27.8	0.35
24	27.05.2023	ETS/SL-165	69.8	27.4	8.4	39.0	0.42
Minimum			69.8	27.4	6.2	18.8	0.26
Maximum			207.4	109.2	18.0	158.8	0.90
Average			155.2	73.6	9.5	69.3	0.53
98 Percentile			207.0	108.6	17.3	149.2	0.90

****End of Test Report****

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CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Lab In-charge
AUTHORIZED SIGNATORY

ENVIRO-TECH SERVICES

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TEST REPORT

TEST REPORT NO : ETS/5049/03/2023 DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Analysis Start Date	:	05-03-2023
Analysis End Date	:	30-05-2023
Sampling Done By	:	ETS STAFF
Sampling Location	:	AAQ-5UNDER 500 METER IN DOWNWIND (13 HA.)
Sampling Method	:	AS PER CPCB GUIDELINES
Sampling Machine Placed At Height	:	1.5 MTR. (FROM GROUND)
Weather Condition	:	CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	01.03.2023	ETS/SL-005	247.8	144.9	5.8	71.0	0.91
2	04.03.2023	ETS/SL-012	199.5	124.0	6.6	49.9	0.80
3	08.03.2023	ETS/SL-019	178.0	114.9	8.7	30.9	0.80
4	11.03.2023	ETS/SL-026	158.7	92.1	7.5	52.7	0.74
5	15.03.2023	ETS/SL-033	204.0	115.4	5.9	94.4	0.71
6	18.03.2023	ETS/SL-040	202.8	124.0	4.2	21.4	0.97
7	22.03.2023	ETS/SL-047	107.6	41.6	6.7	38.1	0.54
8	25.03.2023	ETS/SL-054	276.7	139.2	5.9	56.6	0.97
9	01.04.2023	ETS/SL-061	85.2	51.2	10.5	48.5	0.40
10	04.04.2023	ETS/SL-068	159.2	75.9	13.6	95.6	0.71
11	08.04.2023	ETS/SL-075	204.0	86.5	15.5	107.2	0.41
12	11.04.2023	ETS/SL-082	201.6	81.0	16.6	181.3	0.56
13	15.04.2023	ETS/SL-089	241.2	111.9	17.6	169.3	0.76
14	18.04.2023	ETS/SL-096	194.0	95.6	15.2	154.7	0.55
15	22.04.2023	ETS/SL-103	93.8	56.1	5.6	81.9	0.30
16	25.04.2023	ETS/SL-110	123.7	77.3	10.9	106.2	1.01
17	01.05.2023	ETS/SL-117	97.2	61.8	5.2	55.5	0.51
18	04.05.2023	ETS/SL-124	96.5	47.7	4.9	71.2	0.45
19	08.05.2023	ETS/SL-131	216.3	83.0	11.7	137.8	0.67
20	11.05.2023	ETS/SL-138	218.9	119.1	13.7	175.7	1.00
21	15.05.2023	ETS/SL-145	171.3	57.1	8.5	79.8	0.39
22	18.05.2023	ETS/SL-152	123.2	52.8	6.8	77.7	0.44
23	22.05.2023	ETS/SL-159	147.0	58.1	9.1	29.1	0.29
24	25.05.2023	ETS/SL-166	139.7	65.5	9.3	46.6	0.55
Minimum			85.2	41.6	4.2	21.4	0.29
Maximum			276.7	144.9	17.6	181.3	1.01
Average			170.3	86.5	9.4	84.7	0.64
98 Percentile			263.4	142.3	17.1	178.7	1.01

****End of Test Report****

Note:

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CHECKED BY SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal

AUTHORIZED SIGNATORY

Lab In-charge

ENVIRO-TECH SERVICES

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TEST REPORT

TEST REPORT NO : ETS/5050/03/2023 DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 07-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-6HARDASPURA
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	03.03.2023	ETS/SL-006	238.3	139.3	6.0	73.8	0.68
2	06.03.2023	ETS/SL-013	191.8	119.2	3.1	51.9	0.59
3	10.03.2023	ETS/SL-020	171.1	110.5	3.4	32.1	0.53
4	13.03.2023	ETS/SL-027	152.6	88.6	3.5	54.7	0.96
5	17.03.2023	ETS/SL-034	196.2	110.9	6.1	98.1	0.67
6	20.03.2023	ETS/SL-041	195.0	119.3	4.4	22.2	0.62
7	24.03.2023	ETS/SL-048	103.4	40.0	3.4	39.6	0.96
8	27.03.2023	ETS/SL-055	266.1	133.8	6.2	58.7	0.37
9	03.04.2023	ETS/SL-062	81.9	49.3	10.9	50.4	0.56
10	06.04.2023	ETS/SL-069	153.1	72.9	14.2	99.3	0.43
11	10.04.2023	ETS/SL-076	196.1	83.2	16.1	111.3	0.59
12	13.04.2023	ETS/SL-083	193.8	77.9	17.2	188.2	0.62
13	17.04.2023	ETS/SL-090	232.0	107.6	18.3	175.6	0.85
14	20.04.2023	ETS/SL-097	186.5	91.9	15.8	160.7	0.55
15	24.04.2023	ETS/SL-104	90.2	53.9	5.8	85.1	0.28
16	27.04.2023	ETS/SL-111	119.0	74.3	3.4	110.3	0.60
17	03.05.2023	ETS/SL-118	93.5	59.5	5.4	57.6	0.54
18	06.05.2023	ETS/SL-125	92.8	45.8	5.1	73.9	0.42
19	10.05.2023	ETS/SL-132	208.0	79.8	12.2	143.1	0.63
20	13.05.2023	ETS/SL-139	210.5	114.6	14.3	182.4	0.51
21	17.05.2023	ETS/SL-146	164.7	54.9	8.9	82.8	0.43
22	20.05.2023	ETS/SL-153	118.5	50.8	7.1	80.6	0.50
23	24.05.2023	ETS/SL-160	141.3	55.8	9.5	30.2	0.37
24	27.05.2023	ETS/SL-167	134.3	63.0	9.7	48.3	0.45
		Minimum	81.9	40.0	3.1	22.2	0.28
		Maximum	266.1	139.3	18.3	188.2	0.96
		Average	163.8	83.2	8.7	88.0	0.57
		98 Percentile	253.3	136.8	17.8	185.6	0.96

****End of Test Report****

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For Enviro-Tech Services

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Lab In-charge

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ISO 45001

TEST REPORT

TEST REPORT NO : ETS/5051/03/2023

DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)

Analysis Start Date : 05-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-7 CHAK BHUSUALA MOSQUE
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	01.03.2023	ETS/SL-007	184.3	104.4	4.5	44.7	1.05
2	04.03.2023	ETS/SL-014	166.4	90.8	4.6	32.9	0.92
3	08.03.2023	ETS/SL-021	117.1	72.6	3.6	33.5	0.92
4	11.03.2023	ETS/SL-028	186.5	111.4	4.5	57.3	0.85
5	15.03.2023	ETS/SL-035	184.7	91.3	4.8	19.4	0.82
6	18.03.2023	ETS/SL-042	140.0	64.9	3.3	23.8	1.12
7	22.03.2023	ETS/SL-049	213.9	86.2	3.3	47.6	0.62
8	25.03.2023	ETS/SL-056	120.0	52.1	5.7	31.4	1.12
9	01.04.2023	ETS/SL-063	115.9	56.2	10.1	75.4	0.46
10	04.04.2023	ETS/SL-070	171.8	74.9	11.9	98.6	0.82
11	08.04.2023	ETS/SL-077	186.0	92.7	18.5	142.2	0.47
12	11.04.2023	ETS/SL-084	204.1	76.5	12.7	140.7	0.65
13	15.04.2023	ETS/SL-091	212.9	100.5	17.1	163.7	0.88
14	18.04.2023	ETS/SL-098	211.8	92.5	8.9	105.6	0.64
15	22.04.2023	ETS/SL-105	107.1	48.0	4.0	48.4	0.35
16	25.04.2023	ETS/SL-112	181.1	112.5	2.2	88.1	1.17
17	01.05.2023	ETS/SL-119	162.4	80.8	3.6	69.8	0.59
18	04.05.2023	ETS/SL-126	153.3	67.2	11.0	97.6	0.52
19	08.05.2023	ETS/SL-133	176.1	73.2	11.0	128.8	0.77
20	11.05.2023	ETS/SL-140	173.4	75.9	8.3	73.4	1.16
21	15.05.2023	ETS/SL-147	150.5	72.2	4.1	70.6	0.45
22	18.05.2023	ETS/SL-154	158.2	82.6	7.5	52.5	0.51
23	22.05.2023	ETS/SL-161	90.4	42.5	8.5	28.7	0.33
24	25.05.2023	ETS/SL-168	71.9	28.2	8.7	40.2	0.64
		Minimum	71.9	28.2	2.2	19.4	0.33
		Maximum	213.9	112.5	18.5	163.7	1.17
		Average	160.0	75.8	7.6	71.4	0.74
		98 Percentile	213.4	112.0	17.9	153.8	1.16

****End of Test Report****

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CHECKED BY: SHRADDHA GUPTA

For Enviro Tech Services

Pushkar Mittal
AUTHORIZED SIGNATORY
Lab In-charge

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ISO 45001

TEST REPORT

TEST REPORT NO : ETS/5052/03/2023

DATE OF REPORT :10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 07-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-8DWARIKAPURI, KHAGAUL SANDALPUR
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	03.03.2023	ETS/SL-008	231.3	135.2	5.2	63.7	0.79
2	06.03.2023	ETS/SL-015	186.2	115.7	2.7	44.8	0.68
3	10.03.2023	ETS/SL-022	166.2	107.3	3.0	27.8	0.61
4	13.03.2023	ETS/SL-030	148.1	86.0	3.1	47.3	1.11
5	17.03.2023	ETS/SL-036	190.4	107.7	5.3	84.7	0.77
6	20.03.2023	ETS/SL-043	189.3	115.8	3.8	19.2	0.72
7	24.03.2023	ETS/SL-050	100.4	38.8	2.9	34.2	1.11
8	27.03.2023	ETS/SL-057	258.3	130.0	5.3	50.8	0.43
9	03.04.2023	ETS/SL-064	79.5	47.8	9.4	43.5	0.65
10	06.04.2023	ETS/SL-071	148.6	70.8	12.2	85.8	0.50
11	10.04.2023	ETS/SL-078	190.4	80.7	13.9	96.2	0.68
12	13.04.2023	ETS/SL-085	188.2	75.6	14.9	162.7	0.72
13	17.04.2023	ETS/SL-092	225.2	104.5	15.8	151.9	0.98
14	20.04.2023	ETS/SL-099	181.1	89.2	13.6	138.8	0.64
15	24.04.2023	ETS/SL-106	87.6	52.4	5.0	73.5	0.32
16	27.04.2023	ETS/SL-113	115.5	72.2	3.0	95.3	0.69
17	03.05.2023	ETS/SL-120	90.8	57.7	4.7	49.8	0.62
18	06.05.2023	ETS/SL-127	90.1	44.5	4.4	63.9	0.49
19	10.05.2023	ETS/SL-134	201.9	77.5	10.5	123.7	0.73
20	13.05.2023	ETS/SL-141	204.4	111.2	12.3	157.6	0.59
21	17.05.2023	ETS/SL-148	159.9	53.3	7.7	71.6	0.50
22	20.05.2023	ETS/SL-155	115.0	49.3	6.1	69.7	0.58
23	24.05.2023	ETS/SL-162	137.2	54.2	8.2	26.1	0.43
24	27.05.2023	ETS/SL-167	130.4	61.1	8.4	41.8	0.52
		Minimum	79.5	38.8	2.7	19.2	0.32
		Maximum	258.3	135.2	15.8	162.7	1.11
		Average	159.0	80.8	7.6	76.0	0.66
		98 Percentile	245.9	132.8	15.4	160.3	1.11

****End of Test Report****

Note:-

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6. This test report shall not be used in any advertisement media or as evidence in the court of law without prior written permission of the laboratory.

CHECKED BY
SHRADDHA GUPTA

For Enviro-Tech Services

Pushkar Mittal
Lab In Charge

AUTHORIZED SIGNATORY

ENVIRO-TECH SERVICES

An Analytical Laboratory

(A GOVERNMENT APPROVED LAB)

Plot No. 1/32, S.S. of G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

ETS-LAB

ISO 45001

TEST REPORT

TEST REPORT NO : ETS/5053/03/2023

DATE OF REPORT : 10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : RIAN ENVIRO PRIVATE LIMITED
(AIIMS EXPANSION PROJECT)

Analysis Start Date : 05-03-2023
Analysis End Date : 30-05-2023
Sampling Done By : ETS STAFF
Sampling Location : AAQ-9NAWADA
Sampling Method : AS PER CPCB GUIDELINES
Sampling Machine Placed At Height : 1.5 MTR. (FROM GROUND)
Weather Condition : CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	01.03.2023	ETS/SL-009	186.4	108.9	6.3	51.3	0.39
2	04.03.2023	ETS/SL-016	150.0	93.2	3.2	36.1	0.34
3	08.03.2023	ETS/SL-023	133.9	86.4	3.6	22.4	0.31
4	11.03.2023	ETS/SL-031	119.3	69.3	3.7	38.1	0.20
5	15.03.2023	ETS/SL-037	153.4	86.8	6.4	68.3	0.38
6	18.03.2023	ETS/SL-044	152.5	93.3	4.6	15.5	0.36
7	22.03.2023	ETS/SL-051	80.9	31.3	3.6	27.6	0.55
8	25.03.2023	ETS/SL-058	195.2	104.7	6.4	40.9	0.22
9	01.04.2023	ETS/SL-065	64.1	38.5	11.4	35.1	0.32
10	04.04.2023	ETS/SL-072	119.7	57.0	14.8	69.1	0.25
11	08.04.2023	ETS/SL-079	153.4	65.0	16.8	77.5	0.34
12	11.04.2023	ETS/SL-086	151.6	60.9	18.0	131.0	0.36
13	15.04.2023	ETS/SL-093	181.4	84.2	19.1	122.4	0.49
14	18.04.2023	ETS/SL-100	145.9	71.9	16.4	111.8	0.32
15	22.04.2023	ETS/SL-107	70.5	42.2	6.0	59.2	0.16
16	25.04.2023	ETS/SL-114	93.0	58.1	3.6	76.7	0.35
17	01.05.2023	ETS/SL-121	73.1	46.5	5.6	40.1	0.31
18	04.05.2023	ETS/SL-128	72.6	35.9	5.3	51.5	0.24
19	08.05.2023	ETS/SL-134	162.7	62.4	12.7	99.6	0.36
20	11.05.2023	ETS/SL-142	164.6	89.6	14.9	127.0	0.29
21	15.05.2023	ETS/SL-149	128.8	43.0	9.2	57.6	0.25
22	18.05.2023	ETS/SL-151	92.7	39.7	7.4	56.1	0.29
23	22.05.2023	ETS/SL-163	110.5	43.7	9.9	21.0	0.22
24	25.05.2023	ETS/SL-168	105.1	49.2	10.1	33.6	0.26
Minimum			64.1	31.3	3.2	15.5	0.16
Maximum			195.2	108.9	19.1	131.0	0.55
Average			127.6	65.1	9.1	61.2	0.32
98 Percentile			191.1	107.0	18.6	129.2	0.52

****End of Test Report****

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For Enviro-Tech Services

Pushkar Mittal
Lab In-charge

CHECKED BY
SHRADDHA GUPTA

AUTHORIZED SIGNATORY

ENVIRO-TECH SERVICES

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email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TEST REPORT

TEST REPORT NO : ETS/5054/03/2023 DATE OF REPORT : 10-06-2023

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer	:	RIAN ENVIRO PRIVATE LIMITED (AIIMS EXPANSION PROJECT)
Analysis Start Date	:	07-03-2023
Analysis End Date	:	30-05-2023
Sampling Done By	:	ETS STAFF
Sampling Location	:	AAQ-10MUHAMMADPUR KORJI, BIHAR
Sampling Method	:	AS PER CPCB GUIDELINES
Sampling Machine Placed At Height	:	1.5 MTR. (FROM GROUND)
Weather Condition	:	CLEAR

Test Parameters			Particulate Matter(PM10)	Particulate Matter(PM2.5)	Sulphur Dioxide(SO2)	Nitrogen Dioxide(NO2)	Carbon Monoxide(CO)
Unit			µg/m3	µg/m3	µg/m3	µg/m3	mg/m3
Limit (as Per CPCB)			24 Hrs.=100	24 Hrs.=60	24 Hrs.=80	24 Hrs.=80	1 Hrs.=04
Test Method			IS:5182(Pt-23)	Grav.Method	IS:5182(Pt-2)	IS:5182(Pt-6)	IS:5182(Pt-10)
Sl.N.	Monitoring Date	Sample ID	Test Results				
1	03.03.2023	ETS/SL-010	161.5	93.3	10.3	41.1	0.37
2	06.03.2023	ETS/SL-011	145.9	81.1	10.4	30.3	0.32
3	10.03.2023	ETS/SL-024	102.6	64.9	8.1	30.8	0.29
4	13.03.2023	ETS/SL-032	163.4	99.5	10.2	52.8	0.53
5	17.03.2023	ETS/SL-038	161.8	81.6	10.9	17.6	0.32
6	20.03.2023	ETS/SL-045	122.7	58.0	7.5	21.9	0.34
7	24.03.2023	ETS/SL-052	187.4	77.0	7.5	43.8	0.26
8	27.03.2023	ETS/SL-059	105.2	46.6	12.9	28.9	0.20
9	03.04.2023	ETS/SL-066	101.5	50.2	23.1	69.3	0.31
10	06.04.2023	ETS/SL-073	150.6	66.9	14.3	90.8	0.23
11	10.04.2023	ETS/SL-080	163.0	82.9	17.7	130.8	0.32
12	13.04.2023	ETS/SL-087	178.9	68.4	21.0	129.5	0.34
13	17.04.2023	ETS/SL-094	186.6	89.8	19.3	150.6	0.47
14	20.04.2023	ETS/SL-101	185.6	82.6	20.2	97.2	0.30
15	24.04.2023	ETS/SL-108	93.8	42.9	9.1	44.5	0.16
16	27.04.2023	ETS/SL-115	158.7	100.6	6.9	81.0	0.33
17	03.05.2023	ETS/SL-122	142.3	54.4	8.1	64.2	0.29
18	06.05.2023	ETS/SL-129	134.3	51.1	16.7	89.8	0.23
19	10.05.2023	ETS/SL-135	154.3	65.4	15.1	118.5	0.34
20	13.05.2023	ETS/SL-143	152.0	67.8	18.9	67.6	0.28
21	17.05.2023	ETS/SL-150	131.9	64.6	9.3	65.0	0.23
22	20.05.2023	ETS/SL-152	138.6	73.8	17.1	48.3	0.28
23	24.05.2023	ETS/SL-164	79.2	37.9	19.4	26.4	0.20
24	27.05.2023	ETS/SL-169	63.0	25.2	19.8	37.0	0.25
		Minimum	**63.0**	**25.2**	**6.9**	**17.8**	**0.16**
		Maximum	**187.4**	**100.6**	**23.1**	**150.6**	**0.53**
		Average	**140.2**	**67.8**	**13.9**	**65.7**	**0.30**
		98 Percentile	**187.0**	**100.1**	**22.2**	**141.5**	**0.50**

****End of Test Report****

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CHECKED BY: SHRADDHA GUPTA

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Lab In-charge

Annexure-XVII
Certified Compliance Report

भारत सरकार / Government of India
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forest & Climate Change
एकीकृत क्षेत्रीय कार्यालय/Integrated Regional Office
पता: द्वितीय तल, झारखण्ड राज्य आवास बोर्ड मुख्यालय, हरमू चौक, राँची, झारखण्ड - 834002
Add: 2nd Floor, Headquarter-Jharkhand State Housing Board, Harmu Chowk, Ranchi, Jharkhand - 834002
Tel: 0651-2410002, 2410007; E-mail: ro.ranchi-mef@gov.in

File No. 105-62/09/EPE /1349

Dated: 18.08.2023

सेवा में ,

राज्य पर्यावरण समाघात निर्धारण प्राधिकरण (SEIAA), बिहार
दूसरी मंजिल, बेल्ट्रोन भवन ,
शास्त्री नगर, पटना,
बिहार 800023

विषय: Construction of AIIMS, Apex Health Care Institute Phulwri Sharif, Patna, Bihar by M/S Secretary, Department Of Health, Government of Bihar- regarding

संदर्भ: Ministry's Clearance letter no. No 21-269/2008 – IA.III dated 17-07-2009.

महाशया / महाशय,

I am directed to draw your kind attention to the subject and letters cited above and to state that, "*Construction of AIIMS, Apex Health Care Institute Phulwri Sharif, Patna, Bihar by M/S Secretary, Department Of Health, Government of Bihar*" project was monitored at site on 12.07.2023 by Shri M. Rajeshwar Prasad, Scientist C, Regional Office Ranchi. Based on the observations made during the field visit and documents submitted by the project authorities the monitoring reports prepared, and duly approved by the competent authority are attached herewith for kind information and necessary action.

भवदीय,

(एम. राजेशवर प्रसाद)
वैज्ञानिक 'सी'

Copy to:

1. वैज्ञानिक 'F'/निदेशक (अनुवीक्षण सेल),पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,इंदिरा पर्यावरण भवन, जोर बाग रोड, अलीगंज, नई दिल्ली – 110003
2. सदस्य सचिव, बिहार राज्य प्रदूषण नियंत्रण पर्षद्, परिवेश भवन पाटलिपुत्र, पटना ।
3. Project coordinator, AIIMS, Patna, Bihar. (it is requested to submit point wise reply to not complied/partially complied conditions, concerns and other observations reported.)

(एम. राजेशवर प्रसाद)
वैज्ञानिक 'सी'

MONITORING REPORT

The Ministry of Environment and Forest, Government of India, has granted Environment Clearance to the project 'Construction of AIIMS, Apex Health Care Institute, Phulwari Sharif, Patna, Bihar vide letter No. letter no. 21-269/2008-IA.III dated 17.07.2009. The project has received Consent to Establish (CTE) from the Bihar State Pollution Control Board vide letter No. PT(NC)-3808/09/B-652 dated 11.08.2010 for a period of one year and subsequently extended till 31st March 2013 through vide letter No. PT (NOC)- 3808/09/B-876 dated 8th September 2011.

The construction of building has been completed and the project has been commissioned on 20.01.2021. The project was monitored at site by the Regional Office, Ranchi on 17.01.2020.

The project has received clearances from various statutory and regulatory bodies. Details of these are tabulated below:

Sl no	Details	Issuing Authority	Letter no	Issuing Date	Validity
1.	Environmental Clearance	MOEF&CC	No – 21-269/2008 – IA.III	17th July 2009	
2.	Consent to Establish (CTE)	State Pollution Control Board (SPCB)	PT(NC) – 38808/09/B-652	11/08/2010	11/08/2011
	CTE extension		PT(NOC)- 38808/09/B-876	08/09/2011	31/03/2013
3.	Consent to Operate(CTO)		PT – 3- 460/12	28/01/2021	30/11/2023
			PT /– 2- 68/12	28/01/2021	30/11/2023
4.	Hazardous waste authorization		Not applicable as the quantity generated is less than the threshold limit of 300 liters/year.		
5.	Bio-medical waste authorization		BMW/133/14 B 1984	01/12/2018	01/12/23
6.	Fire NOC	Fire department	3536	08.07.2022	For life
7.	Explosive NOC		68-10/2017/455/	15.02.2020	For life.
8.	Ground water	The project has submitted on-line application to the Central Ground Water Board vide Application Number : 21-4/1622/BR/INF/2023 21.06.2023			
9.	Public liability insurance	Policy no -4009/298753354/00/000			

The project has applied to the State Environment Appraisal Authority (SEIAA), Bihar for expansion of the existing project. SEIAA, Bihar has issued TOR to the project proposal and has sought Certified Compliance Report (CCR) from the Ranchi Regional Office of the Ministry of Environment, Forest and Climate Change, as per the provisions of the EIA Notification, 2006. The project authorities, vide their letter No A/6000/AIIMS/Patna/EC/98 dated 30.05.2023 have requested this Office for issue of CCR.

In compliance to the above, the Site Inspection was carried out by Shri M. Rajeshwar Prasad, Scientist, 'C' from the Ranchi Regional Office on 12.07.2023 and the following Officials from the project were present.

i. Shri B. K. Singh, Supdt. Engineer, AIIMS
ii. Shri Sarvesh Anand, Architect, CPWD, Patna

iii. Shri Rakesh Roshan, Engineer, HITES
iv. Shri Bhuvan Bhaskar, Consultant
v. Shri Amir Akhtar, Consultant

Based on the observations made at site, reports/documents submitted by the project and discussions held at site with the Officials, the Monitoring Report on the point-wise status of compliance to the conditions stipulated in the Environment clearance letter granted has been prepared.

PART – II

1. **Condition no. 13 : Not complied.**

   The project has not used fly ash bricks in the construction of the building, as stipulated in the environment clearance condition.

2. **Condition no. 17: Not complied.**

   The project is drawing ground water through pumps. It was noted that the project has applied to the Central Ground water Authority and permission is yet to be received.

3. **Condition no. 35: Partially complied.**

   It is observed that the project proponent is adopting energy conservation measures in the project. However, as per the environment clearance stipulated condition, the project is yet to submit copy of the Report on the Energy Conservation measures conforming to energy conservation norms finalize by Bureau of Energy Efficiency to this Regional Office.

4. **Condition no. 46 : Partially complied.**

   The project authorities have reported to this Office that advertisement with respect to environment clearance having been granted to the project has been published in the news papers (i) The Times of India and (ii) Dainik Jagaran. However, copy of the newspaper advertisement published is yet to be submitted to this Office.

PART - III

PART A - SPECIFIC CONDITIONS I			
Sl.No	**STIPULATED CONDITION**	**COMPLIANCE**	**REMARKS**
CONSTRUCTION PHASE			
1	"Consent for Establishment" shall be obtained from Bihar Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	The project has received Consent to Establish (CTE) from Bihar State Pollution Control Board vide letter No. PT (NOC)- 3808/09/B-652 dated 11th August, 2010 for a period of one year and subsequently extended till 31st March 2013 through vide letter No. PT (NOC)-3808/09/B-876 dated 8th September 2011. The project has been issued CTO from Bihar State Pollution Board vide memo	**Complied.**

		No. B178 and B-177 dated 28-01-2021 which is valid up to 30-11-2023.	
2	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The project has been completed and commissioned. It has been reported that during the Construction phase, temporary housing of construction labour had been provided within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile STP, Safe drinking facility, medical health care.	**Complied.**
	  **Construction of temporary sheds for laborers**		
3	A First Aid Room will be provided in the project both during construction and operation of the project.	The construction of the building has been completed. It is reported by the project authorities that during the construction phase, two first aid rooms had been provided. It has been stated that necessary first aid medicines were available at the site.	**Complied.**
4	All the topsoil excavated during construction activities should be stored for use in horticulture /landscape development within the project site.	During the site visit, it was noted that there was no storage of soil. It is reported that all the top soil excavated were stored separately within the site and later used in landscaping and Greenbelt development.	**Complied.**
5	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	During the inspection of the project, it was observed that there was no muck inside the campus or has been disposed to the outside the project. It is submitted by the project authorities that the excavated materials generated during laying of foundation have been disposed inside the campus in low lying areas and nearby fields.	**Complied.**

<table>
<tr><td>6</td><td>Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.</td><td>It is reported by the project authorities that they have carried out sampling and analysis of the soil and ground water. It is noted that all the parameters reported are within the prescribed limits.

Ground water quality is reported at Condition no. 33.</td><td>Complied but further action needed.</td></tr>
<tr><td></td><td colspan="3">Table – Results of parameters of soil quality monitored

<table>
<tr><th>Sl no</th><th>Test parameters</th><th>Unit</th><th>Permissible limit</th></tr>
<tr><td>1.</td><td>Texture</td><td>.....</td><td>Sandy clay loam</td></tr>
<tr><td>2.</td><td>Sand</td><td>%</td><td>54.2</td></tr>
<tr><td>3.</td><td>Silt</td><td>%</td><td>32.2</td></tr>
<tr><td>4.</td><td>Clay</td><td>%</td><td>13.5</td></tr>
<tr><td>5.</td><td>pH</td><td>...</td><td>7.62</td></tr>
<tr><td>6.</td><td>Electrical conductivity</td><td>µs/cm</td><td>346.4</td></tr>
<tr><td>7.</td><td>Water holding capacity</td><td>%</td><td>37.3</td></tr>
<tr><td>8.</td><td>Cation exchange capacity (CEC)</td><td>meq/100 g</td><td>26.6</td></tr>
<tr><td>9.</td><td>Magnesium</td><td>mg/kg</td><td>480.1</td></tr>
<tr><td>10.</td><td>Phosphorus (PO_4)</td><td>mg/kg</td><td>52.4</td></tr>
<tr><td>11.</td><td>Sodium (Na)</td><td>mg/kg</td><td>132.1</td></tr>
<tr><td>12.</td><td>Potassium (K)</td><td>mg/kg</td><td>288.5</td></tr>
<tr><td>13.</td><td>Calcium (Ca)</td><td>mg/kg</td><td>1106.2</td></tr>
<tr><td>14.</td><td>Total nitrogen</td><td>mg/kg</td><td>223.3</td></tr>
</table></td></tr>
<tr><td>7</td><td>Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.</td><td>During the inspection, it was noted that there was no construction spoils lying within the project. It was reported that only earthen soil/ materials was generated during foundation laying as solid waste and no bituminous materials and other hazardous materials were used or have been generated.</td><td>Complied.</td></tr>
<tr><td>8</td><td>Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the Bihar Pollution Control Board.</td><td>All the construction activities have been completed. It is reported that there has been no hazardous wastes, generated during the construction and only Earth materials during foundation or the solid waste had been generated.</td><td>Complied.</td></tr>
<tr><td>9</td><td>The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air</td><td>It was reported by the project authorities that the condition was complied with during construction phase. All construction has been completed.</td><td>Reportedly complied.</td></tr>
</table>

<table>
<tr><td></td><td>and noise emission standards.</td><td></td><td></td></tr>
<tr><td>10</td><td>The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.</td><td>It is submitted by the project authorities that the condition had been complied with during the construction phase.

The project has obtained Clearance from Chief Controller Of Explosives vide letter no. 68-10/2017/455/ 15.02.2020.</td><td>Complied.</td></tr>
<tr><td>11</td><td>Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.</td><td>From the reports submitted it is noted that all vehicles hired for brining construction materials were in good condition.</td><td>Complied.</td></tr>
<tr><td>12</td><td>Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ BPCB.</td><td>It is observed from the report submitted that the ambient noise level is within the permissible limit.

Ambient Noise quality monitored
<table><tr><th>Sl no</th><th>Parameter</th><th>Unit</th><th>Result (dB)A</th><th>Specification at CPCB (dB)A</th></tr><tr><td>1.</td><td>Day time noise level</td><td>Leq: dB(A)</td><td>52.3</td><td>55</td></tr><tr><td>2.</td><td>Night time noise level</td><td>Leq: dB(A)</td><td>36.7</td><td>45</td></tr></table></td><td>Complied.</td></tr>
<tr><td>13</td><td>Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. As the site is located within the 100 Km of Thermal Power Stations.</td><td>It is submitted by the project authorities that all the construction was completed using soil bricks. Fly ash or fly ash bricks were not used.</td><td>Not complied.</td></tr>
<tr><td>14</td><td>Ready mixed concrete must be used in building construction.</td><td>It was informed by the Project proponents that they have used ready mixed concrete in building construction.</td><td>Reportedly Complied.</td></tr>
<tr><td>15</td><td>Storm water control and its re-use as per CGWB and BIS standards for various applications.</td><td>Rain water harvesting pit has been constructed. It is submitted that the project proponents have applied to the CGWA vide letter No. 21-4/1622/BR/INF/2023 21.06.2023</td><td>Complied.</td></tr>
</table>

			
16	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	As per the information submitted by the project proponent, the water demand during construction was reduced by the use of premix concrete and wet gunny bags.	**Complied.**
17	Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.	Application for obtaining NOC for Ground water abstraction from CGWA has been submitted and particulars are mentioned below: Application Number : 21-4/1622/BR/INF/2023 21.06.2023 **The project authorities should seek necessary permission at the earliest and submit copy of the same to this Office.**	**Not complied.** **Further action required by project proponent.**
18	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	It was noted that the project has made provision for dual plumbing which is in application presently.	**Complied.**
19	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	Fixture for showers, toilets flushing and drinking are of low flow by using aerators.	**Complied.**
20	Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.	As per the information submitted by the project proponent, High quality double glass with special reflective coating in window is done.	**Reportedly Complied.**
21	Roof should meet prescriptive requirement	Provision of roof insulation, PUF and Brick Bat Cova to achieve better energy	**Being complied.**

	as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.	conservation Building code has been done.	
22	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all. Air conditioned spaces while it is aspirational for non-air conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.	As per the information submitted by the project proponent, double water wall with mineral wool in all air condition building has been provided.	**Reportedly Complied.**
23	The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.	As per the reports submitted by the project proponents, it is noted that the project has obtained approval for all basic structural drawings from IIT Roorkee. *(Documentary proof…)*	**Reportedly Complied.**
24	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	As per the project proponent, necessary precautionary measures were adopted during the construction phase and presently all the construction activity has been completed in the project.	**Reportedly Complied.**
25	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	The project authorities have obtained Consent to Establish (CTE) from the Bihar State Pollution Control Board before commencement of construction activities vide vide letter No. PT (NOC)-3808/09/B-652 dated 11th August, 2010 for a period of one year and subsequently extended till 31st March 2013 through vide letter No. PT (NOC)-3808/09/B-876 dated 8th September 2011.	**Complied.**
OPERATION PHASE			
26	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the	It was observed a Sewage Treatment plant has been constructed and is operational. Treated water from STP is being used in horticulture, washing and sprinkling on the roads.	**Being complied.**

	Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Bihar Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.	As per the submissions made by the project proponent, the testing of inlet and outlet water quality of STP and ETP, have been conducted by the Global Testing and Research Laboratory, Patna, which is a NABL accredited laboratory. This is also verified by the Bihar State Pollution Control Board.	
			
27	The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.	It was observed at the site the project is having proper solid waste and Bio-medical waste management and disposal facility. It is reported Solid waste is being collected from the premises through the Patna Municipal Corporation. (ii) The Bio-medical waste is collected for different point such as OPD and surgery, hostel block, medical college block and stored at a site within the campus and then it transported to the disposal site by authorized vendor M/s IGIMS, Patna.	**Being complied.** **The project should install facility for composting of the organic wastes generated within the Hospital campus.**

		MoU has been signed between AIIMS Patna and Corporate Housekeeping Services (India) Pvt Limited, New Delhi for collection and management of Solid wastes vide letter No. 2120/AIIMS/Pat/Tender/Housekeeping /2013 dated 12.12.2013 which is being renewed every year. Similarly, for Bio-Medical Waste Management, M/s IGIMS, Patna, which is an authorized organization for Bihar State Pollution Control Board vide letter no. BMW/133/14 B1984 dated 01.2018, has been engaged.	
28	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The. location of the DG sets may be decided with in consultation with Bihar Pollution Control Board.	DG set are enclosed type with adequate height of the stack. Low sulphur diesel is being used. **The project authorities should make consultation with the BSPCB with respect to DG Sets installed.** **Photographs of DG sets is shown below:**	**Being complied but further action is needed.**
	  		

<table>
<tr><td>29</td><td>Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.</td><td>Noise level is kept within the prescribed standards.

Noise quality data is given below:<table><tr><th>Sl no</th><th>Parameter</th><th>Unit</th><th>Result</th><th>Specification at CPCB</th></tr><tr><td>1.</td><td>Day time noise level</td><td>Leq: dB(A)</td><td>52.3</td><td>55</td></tr><tr><td>2.</td><td>Night time noise level</td><td>Leq: dB(A)</td><td>36.7</td><td>45</td></tr></table></td><td>Being complied.</td></tr>
<tr><td>30</td><td>The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.</td><td>Green belt of the adequate width and density with local tree species has been developed within the campus for protection against dust and noise. It was suggested to make gap plantations and also plant trees with broad leaves during this monsoon season.</td><td>Being complied but further action needed.</td></tr>
<tr><td colspan="4"> 
Plantation photographs of the AIIMS, Patna campus</td></tr>
<tr><td>31</td><td>Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.</td><td>Weep holes in the compound walls have been provided to ensure natural drainage of rain water.</td><td>Complied.</td></tr>
<tr><td>32</td><td>Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts. above the highest ground water table.</td><td>Rain water harvesting structures have been provided in the project.</td><td>Complied</td></tr>
</table>




Photographs of RWH pit and drain line

33	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	It is noted that the project is carrying out analysis of ground water quality through NABL recognized agency, M/s ETS Lab, Ghaziabad on half yearly basis. From the reports submitted to Office, it is noted that the values of parameters of the ground water quality conform to the prescribed standards. **Ground water quality is tabulated below:**	**Being complied but further action required.**

Sl no	Test parameters	Unit	Permissible limit	Result
1.	Color	Hazen	5	<5
2.	Odour	--	Agreeable	Agreeable
3.	pH	--	6.5-8.5	7.28
4.	Taste	--	Agreeable	Agreeable
5.	Turbidity	NTU	5	<1.0
6.	Total dissolve solid (TDS)	mg/1	2000	408.2
7.	Calcium (Ca)	mg/1	200	42.6
8.	Chloride (Cl)	mg/1	1000	36.4
9.	Chlorine (residual)	mg/1	1	<1.0
10.	Sulphate (SO_4)	mg/1	400	38.5
11.	Total hardness ($CaCo_3$)	mg/1	600	190.2
Heavy Metal				
12.	Iron (Fe)	mg/1	1	0.12

The project authorities should monitor content of Heavy metals like Mercury (Hg), Lead (Pb), Nickel (Ni) Cadmium (Cd) as well as Fluoride (F) in the ground water.

34	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	During inspection, it was noted that there is no traffic congestion near the entry and exit points. Arrangement has been made with sufficient internal parking for both two wheelers and four wheelers are provided. However, the project may contemplate on the improving the existing system keeping the increasing trend of inflow of patients in view.	**Being Complied but further action needed.**




Parking facility at site

35	A Report on the energy conservation measures conforming to energy conservation norms finalize by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.	It was reported by the project proponent that energy conservation measures had been adopted during the construction and operation of the project. **However, report on this is yet to be submitted to this Office.** Energy conservation measures adopted in the project are given below:	**Partially complied.**

Sl no	ECBC Norms	Status
A.	Insulated building envelops	The building envelope is provided with double brick wall with bonded mineral wool (rock wool/ glass wool) 60 mm- 64 kg/cm3 composition was provided.
B.	Roof insulation with U factor 0.261 W/m2	RCC slab with over deck insulation and polyurethane spray 75 mm-42 + 2Kg/m3
C.	Window shading	Window shading provided with 750 mm depth boxing for adequate shade
D.	Passive cooling	For natural ventilation wind tower in the direction of wind is provided. Misting system is provided in the wind tower on south west façade to cool down the air drawn inside.
E.	Lighting controls	No sodium vapour lights were used, only CFL and LED based lights used in the entire campus Exterior lights higher than 100 watts of minimum efficacy of 60 lm/w. 419 Kw energy is harnessed from solar energy The HVAC and electrical system were installed with minimum standard ECBC norms 2007.

36	Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.	The project has installed LED bulbs and solar panels are installed for the lighting in the project campus.	**Being Complied.**
	  Roof top solar panels and solar street light at the site		
37	Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.	STP operation and solid waste management is being carries out with preventing odour problem by chlorination of the water. It was noted that there was no solid waste processing plant in the project.	**Being Complied.**
38	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	It was observed that in the project the buildings had adequate distance between them to allow movement of fresh air and passage of natural light air and ventilation.	**Being complied.**
PART - B GENERAL CONDITIONS			
39	The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.	It is noted that the project is implementing the environmental safeguard measures as per the EMP. Environment parameters are being monitored by third party, NABL	**Being complied.**

		accredited laboratory, M/s ETS Lab, Gaziabad.	
40	The project proponent shall also Submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB	The project is submitting half yearly / Six monthly EC compliance reports to this Regional Office in both hard and soft copy.	**Being complied.**
41	Officials from the Regional Office of MOEF, Bhubaneswar/ Ranchi, who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Bhubaneswar.	The project authorities have agreed to comply with the stipulation.	**Being complied.**
42	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	The project authorities have agreed to comply with the stipulation.	**Assured to comply.**
43	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental	The project authorities have agreed to comply with the stipulation.	**Assured to comply.**

	(Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.		
44	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Statutory clearance/ EC from MoEFCC/NOC and CTO from SPCB/ Fire Department/Civil aviation department has been obtained.	**Complied.**
45	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	The project authorities are abiding with the stipulation. Public Liability insurance Policy has been purchase. **Policy No. 4009/298753354/00/000**	**Complied.**
46	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters	Project proponent has informed that advertisement has been published in the Time of India and Dainik Jagran. Copy of the advertisement is yet to be submitted. The EC compliance report has been uploaded on the AIIMS, Patna website, https://aiimspatna.edu.in/document/EC_COMPLIANCE_AIIMS_Patna_28_05_2023.pdf	**Partially Complied**

	are available with the Bihar Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http: /www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.		
47	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	The project authorities have agreed to comply with the stipulation.	
48	Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act,1997.	The project authorities have agreed to comply with the stipulation.	
49	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZillaParisad/Municip al Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/	The project authorities have submitted copy of clearance letter to Gram Panchayat, Bhusola, Danapur, Phulwari Patna.	**Complied**

	representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.		
50	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied. Environmental Clearance, status of compliance of the stipulated Environment Clearance conditions with monitoring data and Environmental statement has been uploaded at the website. Link of website : https://aiimspatna.edu.in/document/EC_COMPLIANCE_AIIMS_Patna_28_05_2023.pdf Though the result of monitored data of environmental parameters including stack emission has been displayed on a board at the main gate of the project site.	**Being complied.**
51	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the	The project authorities have reported that they have submitted Form V for the financial year 2022-23 with the Bihar State Pollution Control Board. Copy of the Form V has been submitted to this Office.	**Complied.**

	company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.		

CONCLUSION AND OTHER IMPORTANT POINTS:

It is noted that the project authorities are complying with or in the process of compliance to the conditions stipulated in the Environment Clearance granted by the Ministry of Environment and Forest. It is suggested that the project proponent may adopt the following for improvement in the existing compliances:

1. It was noted that there is a colony of the AIIMS Patna, housing approximately 171 household units. There was no STP in the colony. The project proponent has informed that in the expansion project proposal, provision of installation of STP of capacity of 250 KLD has been made for the colony.

2. The project proponent may also install roof top rain-water harvesting facility in the houses in the colony.

3. The concept of utilizing the organic wastes generated in the colony as well as the hospital premises (other than bio-medical wastes) may be used for composting / vermin-composting.

4. It was noted that in the AIIMS hospital premises, the project authorities have made good efforts for treating the sewage water and using the water for horticulture and washing purposes. There were pipes or outlets for supply of this STP water supply to different places. The project authorities should specifically place notice boards at these locations with signage on 'NOT FOR DRINKING" as a precautionary measure to avoid public from drinking the water.

5. The project may establish an Environment Monitoring Cell comprising of executives from different departments which shall review the status of implementation and compliance to various statutory clearances periodically and report to the Director /Head of the Institution on half yearly basis.

(M. R. Prasad)
Scientist C
Regional Office, Ranchi
Ranchi.

एम. राजेश्वर प्रसाद / M. Rajeshwar Prasad
वैज्ञानिक 'सी / Scientist 'C'
भारत सरकार / Govt. of India
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
M/o Environment, Forest & Climate Change
एकीकृत क्षेत्रीय कार्यालय, रांची
Integrated Regional Office, Ranchi

Annexure-XVIII
Site Plan

PHASE-II

MAIN HOSPITAL, SERVICES & HOSTELS ENTRY
TRAUMA & EMERGENCY ENTRY
PAINTED ROAD
VEHICULAR EXIT
OPD, MEDICAL COLLEGE ENTRY STUDENT & LECTURE ENTRY
20M WIDE ROAD
12M WIDE ROAD
landscaped green level 100.3 m
landscaped green LVL 101.5 m
FUTURE EXPANSION OF TRAUMA BLOCK (98l50 m)
TRAUMA BLOCK LG + GF + 5
CONNECTING CORRIDOR
EMERGENCY ENTRY
OPD ENTRY
12M WIDE ROAD ROAD LEVEL + 1350
SHOPPING AND DHARAMSHALA
DIAGNOSTIC CENTRE
HOSPITAL BLOCK LG + G + 6
Plinth lvl 101.60 m
OPD BLOCK LG + G + 5
FUTURE EXPANSION
SERVICE ENTY
12M WIDE ROAD
FUTURE EXPANSION OF HOSPITAL
FUTURE EXPANSION OF HOSPITAL
ug water supply room, fire pump room with sump
O.W.T.
PLANT ROOM Plinth lvl 99.50 m
HSD tank (oil storage)
Boiler Plinth lvl 99.50 m
Liquid Oxygen Tank
Gas Plant Plinth lvl 99.50 m
Biowaste Treatment Plant Incinerator Plinth lvl 99.50 m
Mortuary Plinth lvl 99.50 m
laundry Plinth lvl 99.50 m
Garage Plinth lvl 99.45 m
Workshop Plinth lvl 99.45 m
Open Wash
Open Wash
NURSES STUDENTS HOSTEL G + 7 Plinth lvl 98.80 m
NURSES STUDENTS HOSTEL Plinth lvl 98.80 m
INTERNS HOSTEL G + 7 Plinth lvl 98.80 m
KITCHEN/DINING (NURSES STUDENTS) Plinth lvl 98.80 m
KITCHEN/DINING Plinth lvl 98.80 m
NURSES HOSTEL G + 4
GIRLS HOSTEL (FUTURE) G +4
KITCHEN/DINING Plinth lvl 98.80 m
PARKING
HELIPAD
NURSES HOSTEL (Future) G + 4
PLAY GROUND (LVL. 98.50 m)
DENTAL COLLEGE (FUTURE)
DENTAL COLLEGE (FUTURE)
LANDSCAPED BUFFER (LVL. 98.50 m)
PROPOSED 6 M WIDE ROAD AT LVL. 98.2
AUDITORIUM
parking space for auditorium
Elec. Substation 4
BOYS HOSTELS G + 7 Plinth lvl 98.80 m
KITCHEN/DINING (BOYS) Plinth lvl 98.80 m
BOYS HOSTEL (Future) G + 4
PG HOSTEL (Future) G +14
12 M WIDE ROAD ROAD LEVEL -7200
PARKING
STP
NURSING COLLEGE G + 6 + 3 Plinth lvl 101.60 m
FUTURE EXPANSION NURSING COLLEGE
12 M WIDE ROAD APPROCH ROAD FOR STP
MEDICAL COLLEGE G + G + 6 (FUTURE EXPANSION ON FOURTH FLOOR) Plinth lvl 101.60 m
LIBRARY G + 1 FUTURE EXPANSION ON 2nd,3rd and 4th floor
FUTURE EXPANSION MEDICAL COLLEGE

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NOTE

* ALL DIMENSIONS ARE IN MM
* ALL LEVELS ARE IN M

NOTE

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EXECUTING AGENCY

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PROJECT

CONSTRUCTION OF RESIDENTIAL QUARTERS, SPORTS CUM COMMUNITY HALL, ADMINISTRATION BLOCK ,ACADEMIC BLOCK AND ADVANCED RADIOLOGY CENTRE AT AIIMS, PATNA, BIHAR

CHIEF ARCHITECT

CLIENT

TENDER DRAWING

BUILDING TYPE:
MAIN AIIMS COMPLEX

DRAWING TITLE:
SITE PLAN GROUND LEVEL

DRAWING NUMBER:
101-AR-MST-002

SCALE :

SHEET SIZE : A3

SHEET NO :

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PROPOSED EXPANSION

Area break up AIIMS Patna

Sl No.	Details of Existing Campus	Total Plot Area(Acre)	Existing Built Up Area(Sqm)	Tentative Area for Proposed Construction(Sqm)	Other Futuristic Development
1	AIIMS Hospital Complex		174233		
a	Academic Building			24300.94	
b	Critical Care Unit			21000	
c	Super Speciality with Screening OPD			28000	
d	Boys and Girls Hostel			20000	
e	Admin Block/Centre of Excellence	66.98		10000	
f	Advance Radiology			10000	
g	Burn and Plastic Unit			6000	
h	BSL-3			1000	
i	Vertical expansion PMR/Ayush/others			2000	
2	Residential Complex				
	Residential Quarters (Type-V)	34.84	14423	30000	
	Other Residentail sports cum Community Hall			3500	
		101.82	188656	155800.94	

