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To,
Addl. Principle(S)
Chief Conservator of Forests(C)
Ministry OF Environment, Forest& Climate Change (MoEFCC)
Regional Office (ECZ)
Bunglow No.A-2,Shyamali Colony,
Ranchi-834002

Sub:Submission of Six-monthly Compliance Report Condition of Environmental Clearance (for period of October 2020 to March 2021) forProposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt. Ltd.

Sir,

In accordance with the condition of Environmental Clearance received from MoEF&CC, New Delhi, vide letter no21-363/2017-IA-III dated23rd April 2018, We are submitting herewith six monthly Compliance report of stipulated condition of Environmental Clearance (In soft copy "as notification in Gazette of India on 28th November 2018") in CD for the period ofOctober 2020 to March 2021for above said project.

Thanking you

Yours Sincerely

For Saakaar Constructions Pvt. Ltd.

Authorised Signatory

Authorized Signatory

For:**M/s Saakaar Constructions Pvt. Ltd.**

CC :

1. The Member Secretary, Bihar State pollution Control Board (BSPCB), PariveshBhawan, Plot No. NS-B/2, Paliputra Industrial Area, Patliputra, Patna(Bihar)-800023.
2. The Chairman, Central Pollution Control Board PariveshBhavan, CBD-cum- Office Complex, East Arjun Nagar, New Delhi - 110 032.

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Six-Monthly Environmental Compliance Report of Stipulated Conditions of Environmental Clearance

(October 2020 to March 2021)

FOR

Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar

Submitted to:

Ministry of Environment, Forests & Climate Change (MOEFCC)

Submitted by:

M/s Saakaar Construction Pvt. Ltd.

June, 2021

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CHAPTER-1

INTRODUCTION AND PROJECT DESCRIPTION

1.1 INTRODUCTION

The proposed Group Housing Aqua City phase 1 is being developed at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt. Ltd.

This project has been granted environmental clearance by the Ministry of environment, Forest and Climate Change, New Delhi, vide letter No. 21-363/2017-IA-III dated April, 23rd 2018 (attached as **Annexure-1**).

1.2 PROJECT DESCRIPTION

Salient Features:

Total plot area and the built up area for the proposed project is 50,216 sq. m. and 2,37,003.90 sq. m. respectively.

Total water requirement for the proposed project is 770 KLD out of which the requirement of fresh water is 544 KLD. Total wastewater generation will be 606 KLD, which, will be treated in onsite STP of 730 KLD capacity.

Green area of the proposed project is 7282 sq. m. Total solid waste will be 4.21 TPD which will be disposed off as per Solid Waste Management & Handling Rules.

Electricity:

The building will avail electricity from PSEB. The power requirement is 8810 KVA.

1.3 PRESENT STATUS

Project is in construction phase.

1.4 PURPOSE OF THE REPORT

This six-monthly report is being submitted as per the condition stipulated in the Environmental Clearance letter. Further, the study will envisage the environmental impacts that have generated in the local environment due to the project.

The environmental assessment is being carried out to verify:-

- That the project does not have any adverse environmental impacts in the project area and its surrounding
- Compliance with the conditions stipulated in the Environmental Clearance Letter.

- That the Project Management is implementing the environmental mitigation measures as suggested in the approved Form-1, Form-1A, Environmental Management Plan (EMP) and building plans.

- The project proponent is implementing the environmental safeguards in true spirit.

- Any non-conformity in the project with respect to the environmental implication of the project.

CHAPTER-2

COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE FOR BUILDINGS IN CONSTRUCTION PHASE

Name of Project	Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar
Clearance No.	21-363/2017-IA-III dated 23rd April, 2018
Period of compliance Report	October 2020 to March 2021.

PART A – SPECIFIC CONDITIONS

S. No.	Conditions of Environmental Clearance	Status of Compliance
1	The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.	All the necessary clearance/permission from all relevant agencies has been obtained before the commencement of work.
2.	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	NOC from State pollution Control Board has been obtained. Attached as **annexure 2.**
3	NOC/necessary approval from Sanjay Gandhi Biological Park Authority shall be obtained before commencement of work.	NOC has been obtained from Sanjay Gandhi Biological Park. Attached as **annexure 3.**
4	The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.	NOC from fire department has been obtained and attached as **annexure 4.**
Topography and Natural Drainage		
5	The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	Natural drainage has been ensured for unrestricted flow of water. No construction is being allowed to obstruct the natural drainage of water system.
Water requirement, Conservation, Rainwater Harvesting and Ground Water Recharge		
6	As proposed, fresh water requirement from Municipal/Ground water shall not exceed 544 KLD.	Noted.
7	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.	Same will be complied

S. No.	Conditions of Environmental Clearance	Status of Compliance
8	Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.	Dual pipe plumbing has been proposed for supply of fresh water for drinking, cooking and bathing, other for supply of recycled water for flushing, landscape irrigation and for other purpose will be used.
9	Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.	Use of water saving device for water conservation will be incorporated in this building plan.
10	A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.	Same will be complied
11	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.	Dual plumbing system will be used for separation of black and grey water.
12	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Pre-mixed concrete, curing agents and other best practices is being used to reduce water demand.
13	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed 15 nos. of rain water harvesting recharge pts shall be provided.	15 nos. of RWH pits has been proposed at project site and same will be developed at appropriate stage of site development.
14	Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.	Dewatering of ground water is not required; if any dewatering will be required further same will be done with prior permission of CGWA.
15	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.	The water balance diagram has already been submitted along with application.
Solid Waste Management		
16	The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.	Noted.

S. No.	Conditions of Environmental Clearance	Status of Compliance
17	Disposal of muck during construction phase shall 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.	Necessary precautions have been taken for disposal of muck.
18	Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed 200 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.	Separate wet and dry bins will be provided for segregation of waste. Organic waste will be composed in organic waste convertor at appropriate stage of site development.
19	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	Hazardous waste generated during construction phase is being disposed off as per applicable rules and norms with necessary approval by SPCB.
20	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.	Agreement will be made before operation phase of the project.
Sewage Treatment Plant		
21	Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, gardening, car and street washing and excess treated water shall be used for nearby construction site/discharge to municipal sewer with prior permission.	Sewage will be treated in the STP with tertiary treatment. The treated effluent from STP will be recycled/re-used for flushing, gardening, car and street washing.
22	No sewage or untreated effluent water would be discharged through storm water drains.	No sewage or untreated effluent water will be discharged through storm water drains.
23	The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.	Same will be complied during operation phase.
24	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.	Sludge generated from onsite sewage will be used as manure for landscaping development. Excess sludge will be disposed as per the Ministry of Urban Development, CPHEEO manual on sewerage and sewage treatment.

S. No.	Conditions of Environmental Clearance	Status of Compliance
25	The project/activity shall be dove tailed with the sewerage collection and disposal facilities to be created by the Municipal Corporation/Competent State Authorities so that all sewage generated in the construction and operation phases is disposed accordingly. Necessary permission from the Municipal Authority shall be obtained	Noted.
Energy		
26	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.	Already submitted along with application.
27	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.	Noted.
28	Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.	Energy efficient luminaries like LED will be used within project site. Used/damaged LEDs will be stored at designated places within site and handed over to authorized recycler.
29	Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1°/0 of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.	Noted for compliance.
30	Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.	Same will be complied at appropriate stage of project.

S. No.	Conditions of Environmental Clearance	Status of Compliance
31	Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.	Solar power will be used for lighting in the project to reduce the power consumption.
32	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.	Noted.
Air Quality and Noise		
33	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.	Noted.
34	Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.	Same has been complied.
35	All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.	Construction and demolition debris is being used for back filling and site leveling. Excess construction and demolition debris will be disposed of properly. Dust mask has been provided to workers at construction site to avoid the dust pollution.

S. No.	Conditions of Environmental Clearance	Status of Compliance
36	The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.	Ultra low sulphur diesel is being used for DG set at construction site.
37	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.	Proper stack height will be maintained as per CPCB standard during the operation phase. Acoustic enclosure will be provided to the DG sets to mitigate the noise pollution.
38	For indoor air quality the ventilation provisions as per National Building Code of India.	Same will be complied.
39	Ambient noise levels shall conform to Commercial standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.	Noise level confirm to residential standard both during day and night as per Noise pollution rule. Monitoring report is attached as an **Annexure 5.**
Green Cover		
40	minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained. As proposed 7282 sqm area shall be provided for green belt development.	Noted.
Top Soil preservation and Reuse		
41	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.	Top layer of soil was stored and will be used for landscaping /horticulture development work.
Transport		

S. No.	Conditions of Environmental Clearance	Status of Compliance
42	A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria. • Hierarchy of roads with proper segregation of vehicular and pedestrian traffic. • Traffic calming measures • Proper design of entry and exit points. • Parking norms as per local regulation	Details have already been submitted to EAC with EC application.
43	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	Details have already been submitted to EAC with EC application.
44	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 be operated only during non-peak hours.	No construction activity is being carried out during night time during construction phase. Pollution check certified vehicle is being used for construction work. All vehicles, equipments and construction machines are idle when not in use.
45	A dedicated entry/exit and parking shall be provided for the commercial activities.	A dedicated entry/exit and parking has been provided for the commercial activities.
Environment Management Plan		
46	An environmental management plan (EMP) as prepared and submitted along with EIA Report shall be implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.	Noted.

S. No.	Conditions of Environmental Clearance	Status of Compliance
Others		
47	Provisions 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.	All the necessary infrastructure and facility has been provided to construction labours.
48	A First Aid Room shall be provided in the project both during construction and operations of the project.	First Aid Room has been provided at site during construction phase and same will be provided during operation phase.
49	The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.	Noted.

PART B- GENERAL CONDITIONS

S. No	Conditions of Environmental Clearance	Status of Compliance
1	A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.	Environmental clearance for the project has been obtained, vide MoEF&CC letter no. 21-363/2017-IA-III dated 23rd April, 2018. Copy of EC is attached as **Annexure-1.**
2	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	Same will be complied.
3	Officials from the Regional Office of MoEF&CC, 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&CC shall be forwarded to the APCCF, Regional Office of MoEF&CC, Ranchi.	Same will be complied.
4	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Noted.
5	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.	Noted.

S. No	Conditions of Environmental Clearance	Status of Compliance
6	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Statutory clearances from the approvals authorities has been obtained. NOC from Fire and Aviation Department is attached as an **Annexure 4 and 6.**
7	These stipulations would be enforced among others under the provisions of the 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 the EIA Notification, 2006.	Noted.
8	The project proponent shall 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 State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at http://www.envfor.nic.in. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of this Ministry at Ranchi.	Same has been Complied.
9	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
10	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.	Same has been Complied.
11	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&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, 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.	Same will be complied in due course of time.

S. No	Conditions of Environmental Clearance	Status of Compliance
12	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&CC by email.	Noted and will be complied during operation phase.

CHAPTER 3

DETAILS OF ENVIRONMENTAL MONITORING

3.1 AMBIENT AIR QUALITY MONITORING

3.1.1 Ambient Air Quality Monitoring Stations

Ambient air quality monitoring has been carried out at one location in the month of April, 2021 near the main gate to assess the ambient air quality of Project Site. This will enable to have an analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The location of the ambient air quality monitoring station is given in **Table 3.1**.

Table 3.1 Details of Ambient Air Quality Monitoring Stations

S. No.	Location Code	Location Name/ Description	Environmental Setting
1.	AAQ-1	Near Main gate	Residential

3.1.2 Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter 2.5 (PM 2.5)
- Particulate Matter 10 (PM 10)
- Sulphur Dioxide (SO_2)
- Oxides of Nitrogen (NO_2)
- Carbon Monoxide (CO)

The duration of sampling of PM2.5, PM10, SO_2 and NO_2 was 24 hourly continuous sampling per day and CO was sampled for 1 hour continuous, thrice in 24 hour duration monitoring. The monitoring was conducted for one day at the location. This is to allow a comparison with the National Ambient Air Quality Standards. The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table 3.2**.

Fine Particulate Sampler APM 550 instruments have been used for monitoring Particulate Matter 2.5 (PM2.5 i.e. <2.5 microns), and Respirable Dust Sampler APM 450 was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO2, and NO_2. Bladder and Aspirator bags were used for collection Carbon monoxide samples. Gas Chromatography techniques have been used for the estimation of CO.

Table 3.2 Techniques used for Ambient Air Quality Monitoring

S. No.	Parameter	Technique	Technical Protocol
1	Particulate Matter 2.5	Fine Particulate Sampler APM 550, Gravimetric Method	IRDH/SOP/AAQM/01
2	Particulate Matter 10	Respirable Dust Sampler APM 450, with cyclone separator, Gravimetric Method	IS 5182 P- 23 (2006)
3	Sulphur dioxide	Modified West and Gaeke	IS 5182 P-02 (2001)
4	Oxides of Nitrogen	Jacob & Hochheiser	IS 5182 P-06 (2006)
5	Carbon Monoxide	Gas Chromatography	IRDH/SOP/AAQM/08

3.1.3 Ambient Air Quality Monitoring Results

The detailed on-site monitoring results of PM 2.5, PM 10, SO_2, NO_2 and CO are presented in **Table 3.3**.

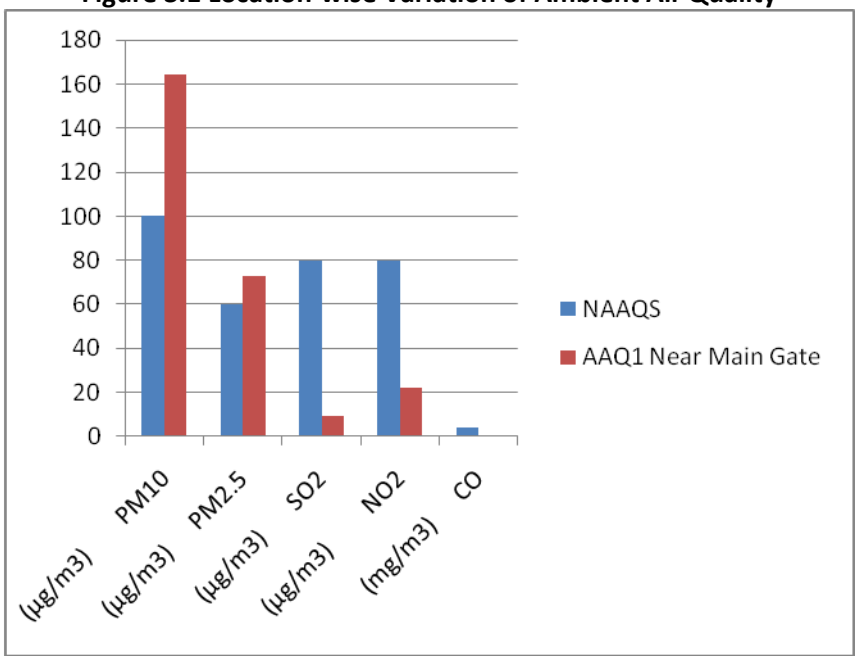
Table 3.3 Ambient Air Quality Monitoring Results

S. No.	Location Code	Location	PM10 ($\mu g/m^3$)	PM2.5 ($\mu g/m^3$)	SO_2 ($\mu g/m^3$)	NO_2 ($\mu g/m^3$)	CO (mg/m^3)
		Limit	**100**	**60**	**80**	**80**	**4**
1.	AAQ1	Near main gate	164	73	9.5	22.1	<1.0

3.1.4 Discussion on Ambient Air Quality in the Study Area

The level of PM10 and PM2.5 at the Site office of project site is higher than the permissible limit of 100 $\mu g/m^3$ & 60 $\mu g/m^3$, (for residential, rural and other areas as stipulated in the National Ambient Air Quality Standards). SO_2, NO_2 and CO was observed within the corresponding stipulated limits (Limit for SO_2 and NO_2: 80 $\mu g/m^3$ and limit for CO: 4.0 mg/m^3) at all monitoring locations. Station wise variation of ambient air quality parameters has been pictorially shown in **Figure 3.1.**

Figure 3.1 Location-wise Variation of Ambient Air Quality



3.2 AMBIANT NOISE MONITORING

3.2.1 Ambiant Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels in project site & project boundary due to various construction allied activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted at 1 location at the site office of the building in the month of April, 2021 site as given in **Table 3.4**.

Table 3.4 Details of Ambient Noise Monitoring Stations

S. No.	Location Code	Location Name/ Description	Present Landuse
1.	L1	Site Office	Residential

3.2.2 Methodology of Noise Monitoring

Noise levels were measured using integrated sound level meter manufactured by Envirotech Instrument Pvt. Ltd. The integrating sound level meter is an integrating/ logging type with frequency range of 'A' type as per IS 15675 (Part 1) 2005. This instrument is capable of measuring the Sound Pressure Level (SPL), Leq and SEL on digital display.

Noise level monitoring was carried out continuously for 24-hours with one hour interval starting at 1240 hrs to 1140 hrs next day. The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels. Lday (Ld), Lnight (Ln) and Ldn values were computed using corresponding hourly Leq. Monitoring was carried out at 'A' response and fast mode.

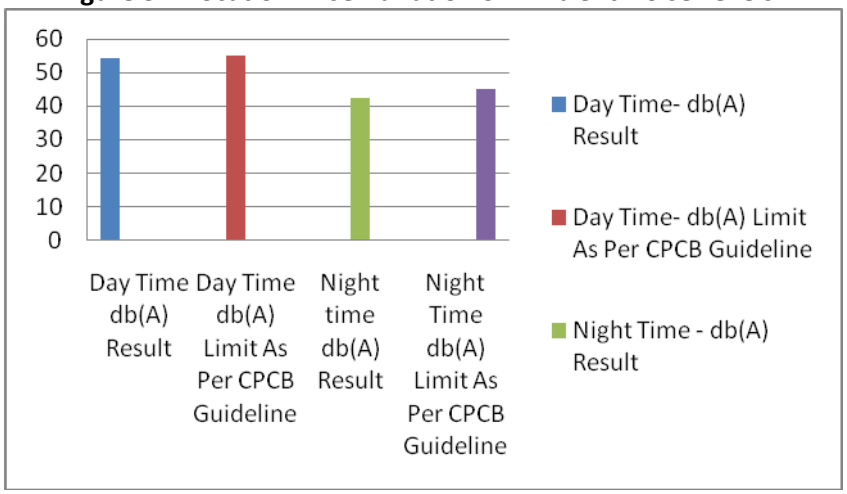
3.2.3 Ambient Noise Monitoring Results

The locations wise ambient noise monitoring result are summarized in **Table 3.5**. The location-wise variation of noise levels are graphically presented in **Figure 3.2**.

Table 3.5 Ambient Noise Monitoring Results

Sr. No.	Test Locations	Day Time - dB(A)		Night Time - dB(A)	
		Results	Limits as per CPCB guideline	Results	Limits as per CPCB guideline
L-1	Near Main Gate	54.2	55	42.5	45

Figure 3.2 Location-wise Variation of Ambient Noise Levels



3.2.4. Discussion on Ambient Noise Levels in the Study Area

Day Time Noise Levels (L_{day}):

The day time noise level at all the locations were found within the limit prescribed for residential area i.e. 55 db(A).

Night Time Noise Levels (L_{night}):

The night time noise level at all the locations were found within the limit prescribed for Residential area i.e. 45 dB (A).

3.3 GROUNDWATER QUALITY MONITORING

3.3.1 Groundwater Quality Monitoring Locations

Keeping in view the importance of groundwater as an important source of drinking water to the local population, sample of ground water was collected from the project site for the assessment of impacts of the project on the groundwater quality.

Water sample was collected from one location at the project site. The sample was analyzed for various parameters to compare with the standards for drinking water as per IS: 10500 for ground water sources. The details of water sampling locations are given in **Table 3.6**.

Table 3.6 Details of Water Quality Monitoring Station

S. No.	Location Code	Location Name/ Description
1.	GW 1	Ground water collected from project site

3.3.2 Methodology of Groundwater Quality Monitoring

Sampling of ground water was carried out in April, 2021. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. Sample for chemical analysis was collected in polyethylene carboys. Sample collected for metal content were acidified to <2 pH with 1 ml HNO_3. A sample for bacteriological analysis was collected in sterilized glass bottles.

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road to IR&DH, Noida for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analyzed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of ground water are given in **Table 3.7**.

3.3.3 Groundwater Quality Monitoring Results

The detailed groundwater quality monitoring results are presented in **Table 3.7**.

Table 3.7 Groundwater Quality Monitoring Results

S No.	Parameter	Test Protocol	Results	Unit	Requirements as per IS 10500- 2012	
					Acceptable Limit (Max)	Permissible limits(Max)
1.	pH	IS 3025 P-11 1983	7.31	--	6.5-8.5	No Relaxation
2.	Turbidity	IS 3025 P-10 (1984)	<0.5	NTU	1	5
3.	Total Hardness	IS 3025 P-21 (2009)	268.0	mg/l	200	600
4.	Total Dissolved Solids (TDS)	IS 3025 P-16(1984)	662.0	mg/l	500	2000
5.	Calcium as Ca	IS 3025 P-40 (1991)	45.0	mg/l	75	200
6.	Magnesium as Mg	IS 3025 P-46 (1994)	38.0	mg/l	30	100
7.	Total Alkalinity as $CaCO_3$	IS 3025 P-23 (1986)	336.0	mg/l	200	600
8.	Chloride as Cl	IS 3025 P-32 (1988)	141.5	mg/l	250	1000
9.	Barium as Ba	Annex F of IS:13428	<0.05	mg/l	0.7	No Relaxation
10.	Ammonia as N	IS 3025 P-34 (1988)	<0.1	mg/l	0.5	No Relaxation
11.	Sulphate as SO_4	IS 3025 P-24 (1986)	24.3	mg/l	200	400
12.	Nitrate as NO_3	IS 3025 P-34 (1988)	10.2	mg/l	45	No Relaxation
13.	Fluoride as F	APHA,22nd Edition	0.13	mg/l	1	1.5
14.	Iron as Fe	IS 3025 P-53 (2003)	<0.1	mg/l	1.0	No Relaxation
15.	Aluminium as Al	IS 3025 P-55(2003)	<0.01	mg/l	0.03	0.2
16.	Anionic Detergent	Annex K of IS:13428	<0.05	mg/l	0.2	1
17.	Phenolic Compounds	IS 3025 P-43 (1992)	<0.001	mg/l	0.001	0.002
18.	Boron as B	IS 3025 P-57 (2005)	<0.1	mg/l	0.5	2.4
19.	Chromium as Cr	IS 3025 P-52 (2003)	<0.01	mg/l	0.05	No Relaxation
20.	Lead as Pb	IS 3025 P47 (1994)	<0.01	mg/l	0.01	No Relaxation
21.	Copper as Cu	IS 3025 P42 (1992)	<0.01	mg/l	0.05	1.5
22.	Mercury as Hg	IS 3025 P-48 (1994)	<0.001	mg/l	0.001	No Relaxation
23.	Manganese as Mn	IS 3025 P-59 (2006)	<0.01	mg/l	0.1	0.3
24.	Zinc as Zn	IS 3025 P-49 (1994)	<0.01	mg/l	5	15
25.	Arsenic as As	IS 3025 P-37 (1988)	<0.01	mg/l	0.01	No Relaxation
26.	Nickel as Ni	IS 3025 P-54 (2003)	<0.01	mg/l	0.02	No Relaxation
27.	Cadmium as Cd	IS 3025 P-41 (1992)	<0.001	mg/l	0.003	No Relaxation

3.3.4 Discussion on Groundwater Quality in the Study Area

From the above tables, it is observed that all physical and chemical parameters are found within the permissible limits. However, parameters like Total Hardness, Total Dissolved solid, Total Alkalinity and Magnesium exceeds the acceptable limit as per IS10500 standards.

3.4 SOIL MONITORING

3.4.1 Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various constructions allied activities. Accordingly, a study of assessment of the soil quality has been carried out.

To assess impacts of ongoing project activities on the soil in the area, the physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. One sample of soil was collected from the project site for studying soil characteristics, the location of which is listed in **Table 3.8**.

Table 3.8 Details of Soil Quality Monitoring Location

S. No.	Location Code	Location Name/ Description
1.	S1	Site Office

3.4.2 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1, 2nd edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy metal concentrations). The soil samples were collected in the month of April, 2021. The samples have been analyzed as per the established scientific methods for physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectro-photometer and Inductive Coupled Plasma Analyzer.

3.4.3 Soil Monitoring Results

The physico-chemical characteristics of the soil, as obtained from the analysis of the soil sample, are presented in **Table 3.9**.

Table 3.9 Physico-Chemical Characteristics of Soil in the Study Area

S. No.	Parameter	Test Method	Results	Unit
1.	pH	IS 2720 P-26 (1987)	8.11	--
2.	Conductivity	IS 14767 (RA 2016)	477.0	µS/cm
3.	Moisture	IS 2720 P-25 (1972)	10.2	% by mass
4.	Water Holding Capacity	IRDH/SOP-SL/07	19.6	%
5.	Specific Gravity	IS 2720 P-3 (1980)	1.93	-
6.	Bulk density	IRDH/SOP-SL/06	1.41	gm/cc
7.	Chloride	IRDH/SOP-SL/14	368.0	mg/kg
8.	Calcium	IRDH/SOP-SL/17	1455.0	mg/kg
9.	Sodium	IRDH/SOP-SL/11	121.0	mg/kg
10.	Potassium	IRDH/SOP-SL/12	36.2	mg/kg
11.	Magnesium	IRDH/SOP-SL/16	254.0	mg/kg
12.	Organic matter	IS 2720 P-22 (1972)	0.56	% by mass
13.	Cation Exchange Capacity(CEC)	IRDH/SOP-SL/09	14.2	meq/100gm
14.	Available nitrogen	IS 14684 (1999)	46.0	mg/kg
15.	Available Phosphorous	IRDH/SOP-SL/10	8.0	mg/kg
16.	Texture	IRDH/SOP-SL/08		% by mass
	Sand		58.7	
	Clay		23.8	
	Silt		17.5	
17.	Sodium Absorption Ratio(SAR)	IRDH/SOP-SL/13	0.77	By calculation

4.4 DISCUSSION ON SOIL CHARACTERISTICS IN THE STUDY AREA

All the monitoring has been done as per the standard. The soil quality in the project area has not been affected by the project activities.

F. No.21-363/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 23rd April, 2018

To,

Shri Sudip Kumar, Managing Director
M/s Saakaar Constructions Pvt Ltd.,
5th Floor, Sone Bhawan, Beer Chand Patel Marg,
R Block, Patna- 800001.

Phone: 9431024229
Email: sudip@saakar.com

Subject: Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt Ltd.- Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/BR/NCP/72364/2017 dated 18th January, 2018, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of environmental clearance to the project 'Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar promoted by M/s Saakaar Constructions Pvt Ltd., was considered by the Expert Appraisal Committee (Infra-2) in its 29th meeting held on 20th March, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are as under:-

(i) M/s Saakaar Constructions Pvt Ltd proposed Group Housing Aqua City Phase-1 at Danapur Patna, Bihar on a total plot area of 50,216.89 sqm and total built up area is 2,37,003.90 sqm.

(ii) ToR was granted to the project by MoEF&CC vide letter No. 21-363/2017-IA-III dated 23.02.2018.

(iii) Proposed project is construction of multi-storeyed group housing project. A total of 7,282 sqm is to be developed as landscape area. The project envisages construction of 23(21+1+1) blocks i.e. 21 Residential Towers + 1 Commercial Project + 1 Temple of 2B+G/PO+21 floors. Total population of the proposed project will be 9889 which includes the population of 7775 residents & 2114 floating.

(iv) The total water requirement for the project has been estimated to be 770 KLD. This includes domestic water requirement flushing, Car wash/ Street Wash and landscaping. The total fresh water requirement is 544 KLD which includes domestic water requirement. Domestic water requirement will be met through municipal/ground water. The water requirement for flushing, Car wash/ street wash and landscaping will be met through treated water from STP.

(v) Total waste water generated is 606 KLD which will be treated in onsite STP of 730 KLD. The 226 KLD treated water will be recycled and re-used for flushing, Car Wash/ Street Wash and landscaping & excess treated water of 258 KLD will be used in nearby construction sites/ discharge into Public Sewer.

(vi) The total electrical load demand has been estimated to be 8810 KVA for the proposed project. The source of power will be from Patna State Electricity Board (PSEB).

(vii) In case of power failure, DG sets of total capacity of 4200 KVA (7X600) for the proposed project will be provided as power back-up.

(viii) The domestic solid waste will be generated by the residents of the hospital and people coming to community area will pertain to the Bio-degradable & Non-biodegradable Waste. It is estimated that maximum solid waste generation would be about 4.21 TPD for the proposed project and 480.3 kg of sludge will be generated from the proposed project.

(ix) Parking facility for four wheelers is proposed to be provided (according to local norms).

(x) Sanjay Gandhi Biological Park is 7.15 KM/East from the project site.

(xi) No Court case is pending against the project.

(xii) Investment Cost of the project is Rs. 270 Crores.

(xiii) Employment Potential: During operational phase of the project, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities, who would work as domestic helpers.

(xiv) Benefit of the Project: This will help in improving the quality of life of economically weaker sections of the local area.

3. The project/activity is covered under category 'B' of item 8(b) 'Townships and Area Development Projects' of the Schedule to the EIA Notification, 2006, and requires appraisal at SEIAA/SEAC, Bihar. However, due to non-availability of SEIAA/SEAC in Bihar, proposal considered at Central level by EAC (Infra-2) in the Ministry.

4. The EAC, in its meeting held on 20th March, 2018, after detailed deliberations on the proposal, has recommended for grant of Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar promoted by M/s Saakaar Constructions Pvt Ltd., under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

PART A – SPECIFIC CONDITIONS:

(i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

(ii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

(iii) NOC/necessary approval from Sanjay Gandhi Biological Park Authority shall be obtained before commencement of work

(iv) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

Topography and natural Drainage

(v) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

Water requirement, Conservation, rain water Harvesting, and Ground Water Recharge

(vi) As proposed, fresh water requirement from Municipal/Ground water shall not exceed 544 KLD.

(vii) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

(viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

(ix) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

(x) A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

(xi) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

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

(xiii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model

Building Byelaws, 2016. As proposed 15 nos. of rain water harvesting recharge pts shall be provided.

(xiv) Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

(xv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

Solid Waste Management

(xvi) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

(xvii) Disposal of muck during construction phase shall 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.

(xviii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed 200 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

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

(xx) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained

Sewage Treatment Plant

(xxi) Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, gardening, car and street washing and excess treated water shall be used for nearby construction site/discharge to municipal sewer with prior permission.

(xxii) No sewage or untreated effluent water would be discharged through storm water drains.

(xxiii) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(xxiv) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(xxv) The project/activity shall be dove tailed with the sewerage collection and disposal facilities to be created by the Municipal Corporation/Competent State Authorities so that all sewage generated in the construction and operation phases is disposed accordingly. Necessary permission from the Municipal Authority shall be obtained

Energy

(xxvi) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

(xxvii) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

(xxviii) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

(xxix) Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

(xxx) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.

(xxxi) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

(xxxii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as

on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

Air Quality and Noise

(xxxiii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site

(xxxiv) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

(xxxv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

(xxxvi) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

(xxxvii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(xxxviii) For indoor air quality the ventilation provisions as per National Building Code of India.

(xxxix) Ambient noise levels shall conform to Commercial standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

Green Cover

(xl) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained. As proposed 7282 sqm area shall be provided for green belt development.

Top Soil preservation and Reuse

(xli) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

Transport

(xlii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

(xliii) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

(xliv) 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 be operated only during non-peak hours.

(xlv) A dedicated entry/exit and parking shall be provided for the commercial activities

Environment management Plan

(xlvi) An environmental management plan (EMP) as prepared and submitted along with EIA Report shall be implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

Others

(xlvii) Provisions 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.

(xlviii) A First Aid Room shall be provided in the project both during construction and operations of the project.

(xlix) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.

PART B - GENERAL CONDITIONS

(i) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.

(ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.

(iii) Officials from the Regional Office of MoEF&CC, 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&CC shall be forwarded to the APCCF, Regional Office of MoEF&CC, Ranchi.

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

(v) 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.

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

(vii) These stipulations would be enforced among others under the provisions of the 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 the EIA Notification, 2006.

(viii) The project proponent shall 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 State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at http://www.envfor.nic.in. The advertisement shall be

made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of this Ministry at Ranchi.

(ix) Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(x) 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.

(xi) 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&CC, 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.

(xii) 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&CC by e-mail.

5. This issues with the approval of the Competent Authority.

(Kushal Vashist)
Director

Copy to:

1) The Principal Secretary, Environment and Forest Department, Government of Bihar, Secretariat, Patna-800015.
2) Addl. Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Regional Office (ECZ, Bungalow No. A-2, Shyamali Colony, Ranchi-834002.
3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4) Member Secretary, Bihar Pollution Control Board, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 023, E-MAIL - bspcb@yahoo.com.
5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6) Guard File/ Record File/ Notice Board.

(Kushal Vashist)
Director

BIHAR STATE POLLUTION CONTROL BOARD

Parivesh Bhawan, NSB-2, Patliputra Industrial Area
Patliputra, Patna - 800 010

Ref. No. Patna, dated:-

'CONSENT-TO-ESTABLISH' (NOC)

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

Reference application ID. **1466157**, dated **05.05.2018** of **M/s Saakaar Construction Pvt. Ltd., Prop. Director Sudip Kumar, Danapur, Dist.-Patna** for Group Housing Project, at **KhataNo.255,256,257,258,259,260261,262,263,264,336,341,342,343,344,345,346,359,360,364, 368,163,164,165,166,167,168,169,170,171,172,173,174,176,278,178,179,180, Khesra No.- Nil, At- Proposed Group Housing Aqua City (Phase-1) Danapur, Dist.-Patna** with capacity as details given below:- **(**Not applicable as it is Group Housing Project**)**

Total investment shall be Rs. 28300Lakhs.

AFTER CONSIDERING:

(i) The facts stated in their application;
(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.
(iv) Environmental clearance issue vide letter no.-21-363/2017-1A-III, dated: 23.04.2018 by MoEF.

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

GENERAL CONDITIONS:-

(i) The proponent shall obtain 'Consent-to-Operate' under sections 25 & 26 of the Water Act, 1974 and Section 21 of the Air Act, 1981 prior to commissioning of the plant from this Board;
(ii) The effluent (domestic or trade) and emission, if any, shall conform to the standard prescribed by the Board;
(iii) Diesel generator sets, if any, shall have acoustic enclosures and should conform to the Environment (Protection) Rules, 1986 prescribed for air and noise emission standards. Ambient noise levels should conform to residential standards both during day and night.
(iv) The height of the stack of the D.G. Set should be as per norms of CPCB.
(v) Adequate storm water drainage shall be provided in the premises to prevent sudden discharge of excessive volumes of storm water to the receiving waters thus reducing the shock load on the drainage system.
(vi) All mandatory approvals and permissions such as fire Department, Airport Authority, Health and Safety for users should be obtained.
(vii) Provision of effective Controls of Building Management Systems such as Automatic Fire Alarm and Fire Detection and Suppression System etc, must be ensured.
(viii) The proponent should abide by the Solid Wastes Management Rules, 2016. The proponent must develop the Solid Waste Management and Disposal Scheme including storage and segregation of biodegradable and non-biodegradable wastes and solid wastes shall be disposed off in consultation with local municipal authority.
(ix) Ground water should not be abstracted without prior permission of the competent authority.
(x) Construction work shall be done in covered shade and step will be taken to minimize fugitive emission, during carriage, Loading and unloading of construction materials.

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

BIHAR STATE POLLUTION CONTROL BOARD
Parivesh Bhawan, NSB-2, Patliputra Industrial Area
Patliputra, Patna - 800 010

SPECIFIC CONDITIONS:-

(i) That they shall have to construct at full-fledged Sewage/ Effluent Treatment Plant (ETP/STP) to treat the waste water generated in the premises. The quality of treated effluent shall meet the standards prescribed for the reuse of water at least for dual flushing irrigation purpose.

(ii) Treated waste water shall be fully reused for irrigation of its own land, car washing etc.

(iii) Adequate measures shall be adopted for water conservation during construction and operation stage. Use of efficient irrigation equipment, evaporative cooling unit in air conditioning system etc should be considered.

(iv) The proponent shall provide different colored bins for different categories of waste and ensure complete segregation of biodegradable and non-biodegradable wastes. The solid waste from different collection and storage bins should be finally collected at transfer stations. Further segregation will be done at transfer stations to collect recyclables such as plastic, polythene, glass, metals, textiles, rubbers, leathers, paper etc. Separate compartments shall be provided for each type of recyclables.

(v) Water meter conforming to ISO standards shall be installed at the inlet point of water uptake to monitor the daily water consumption. Use of water efficient devices / fixtures and appliance should be promoted. Installation of dual flushing system should be considered to conserve water.

(vi) The proponent must practice rainwater harvesting on regular basis.

(vii) They shall submit compliance report of above conditions along with the evidence in the form of photographs bills of procurement etc.

(viii) The proponent shall make arrangement of dual flushing/water reuse overhead tank.

(ix) The proponent shall make arrangement for decentralized composting unit within premises.

(x) The proponent shall follow C&D waste Rules, 2016.

(xi) Tree plantation shall be done as per E.C. condition and plantation should be started from this session.

NOTE:

1. Bihar State Pollution Control Board reserves the option to revise or add other conditions, if necessary, for protection of Environment in general and for Pollution Control in particular;
2. The present NOC should not be construed as an assurance for the grant of 'Consent-to-Operate' the proposed plant but shall be subject to compliance of all the conditions indicated above;
3. The NOC, granted, shall be valid for a period of two years from the date of issue.

Sd/-
(Alok Kumar)
Member Secretary

Memo No.:- 3068 Patna, dated:- 10.8.18

Copy forwarded to: **M/s Saakaar Construction Pvt. Ltd., Prop. Director Sudip Kumar, Danapur, Dist.-Patna** /Concern AEE, Patna for favour of information and necessary action.

10/8/18
(Alok Kumar)
Member Secretary

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

संजय गाँधी जैविक उद्यान, पटना
Sanjay Gandhi Biological Park, Patna

Office of the
Director, Sanjay Gandhi Biological Park, Patna (Bihar)
Phone: 0612-2217455, Mobile: 8986153174, E.mail: patnazoo@yahoo.com]

No. 1353 Dated: 04/08/2018

To,

M/S Saakaar Constructions Pvt. Ltd.,
5th Floor, Sone Bhawan, Near Hotel Chanakya,
R Block Golamer,
Patna- 800 001.

Subject: Consent for No Objection Certificate for construction of group housing township for an area 11.92 acres in Usari, Danapur, Patna.

Ref:- Your letter No. SCPL/SAC/2018-2019 dated 31.07.2018

Sir,

As the proposed group housing township at Usari, Danapur, Patna is about 7.5 Km. west from the location of Sanjay Gandhi Biological Park, Patna, hence no apparent/direct impact seems to affect the Patna zoo.

Yours faithfully,

Director.

Provisional Fire Clearance **(Above 15Mtr. Height)**

Letter No. 4240

OFFICE OF THE STATE FIRE OFFICER-CUM-DIRECTOR , BIHAR , PATNA.

From,

Upendra Prasad Singh,
State Fire Officer,
Bihar, Patna.

To,

Ar. Vishnu Kumar Choudhary ,
Regd. No. –AR/88/15,
Choudhary Kumar Consultants Pvt. Ltd,
Pandooi Place, Boring Road, Patna.

Patna Dt. 30.11.2017.

Sub :- The views regarding proposed fully residential building of above 15 mtr. in height to be constructed at Mauza-Usari, Nashirpur & Sadalpur, Dist- Patna.

Sir,

Please refer to your letter no.-F/021/17-18 dt. – 13/11/2017 through which this aforesaid plan has been sent to us for examination, which was examined by the Fire Service committee.

During examination of the plan it was found that a 21 nos. of Towers from (UB+G+10) to (UB+B+13), (UB+G+21), (Stilt + 15), (LB+UG+G+10) to (LB+UG+G+13), fully residential building, shall be constructed on 120 feet wide road belongs to Saakaar Construction Pvt. Ltd., Through Its Director:- Sudip Kumar, on having Plot no.-255,256,257,258,259,260,261,262,263,264,336,341, 342, 343,344,345,346,359,360, 364, 163,164,165,166,167,168,169,170,171,172,173,174,176,278, 178, 179 , 180, 8 & 17 at Mauza – Usari, Nashirpur & Sadalpur, Dist- Patna.

We clear the plan after giving following advice/suggestions/ recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect / Developer/ Land owner as the case may be.

i) **Construction :**

a) The whole construction of the proposed building shall be carried out as per approved plan drawing conforming the relevant building rules of local Municipal Corporation as per Building Bye laws Bihar, 2014.
b) The floor area exceeds 750 m ^{2} shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
c) The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
d) Provision of ventilation at the crown of the central core-duct of the building shall be provided.
e) Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

ii) **Open Space & Approach :**

a) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility 3.60 m/s (minimum).
b) The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 20 M.T.
c) The width and height of the access gates into the premises shall not be less than 4.5 M and 5M respecting abutting the road.

iii) **Stair Case :-**

a) The Staircase of the building shall be enclosed type. Entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
b) The Staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and openable sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
c) All the Staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the Stair wall shall be 1M above the surrounding roof area.
d) The width of the Staircases and corridor and travel distance of different categories of occupancies shall have to confirm the relevant building rules.
e) In case of two staircase, one must be on outer wall.
f) Both staircase are not went down to basement floor, for approach to basement, there should be another staircase for approach.

iv) **LIFT :-**

a) The walls of the Lift enclosure of the building shall be at least two hours Fire resisting type respectively marked in the plan with the event at top of area not less than 0.2 m ^{2}.

b) The lift of the building shall be designed at high speed "Fire Lift" and conspicuously indicated marked in the plan.

c) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level land comes to stand still with door open.

d) Arrangement shall be provided for extraction of smoke in all the lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply. It shall automatically trip to alternate supply.

e) All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

v) That the basement should be equipped with automatic sprinkler's installation & must have two separate exits.

vi) That active Fire protection system such as down comer system with landing valve and hose reel at each floor incorporated with 900 LPM pump each blocks provided at Terrace level, ISI marked Fire extinguishers as per I.S 2190/1992 & relevant specification, F.R. check door, manual call alarm point, Fire safety luminescent sign & other Fire precautionary measures as mentioned in NBC be provided before occupancy.

vii) That an underground water static tank of not less than 1,00,000 Ltrs. capacity with automatic refilling arrangements prefebly on front side where Fire Brigade vehicles can reach easily & overhead water static tank of not less than 10,000 Ltrs. Capacity each blocks should be made available before occupancy.

viii) That there should be a clear passage of 3.66 Mtr. or above, all around of the both blocks of the building with a clear height of 5 Mts to facilitate the movement of Fire vehicles at the time of emergency.

ix) That a refugee area of 15M^2 above 8th floor be made available as per NBC norms.

x) That the internal finishing shall be non-combustible or class – I surface spread of flame.

xi) That electric cables must be shield at each floor with intumescent coating .

xii) That Fire exit drill be carried out regularly at least twice in a year after occupation.

xiii) That the building must be constructed on at least 40 feet wide road and it is responsibility of the concerned Architect to be ensure the road width because he is the passing authority.

xiv) That AMC should be given to a qualified firm or person for the maintenance of above recommended Fire equipments.

xv) That the setback shall be checked by the Architect / Passing authority as per the established rule. If any thing wrong , the Architect / Passing authority shall be held responsible.

xvi) It is hereby made clear that in case of any legal dispute arising in future, in which above recommendations have not been complied, the responsibility will fall entirely upon the Developers/ Architect/ Landowner as the case may be and not on the recommending Govt. authority (i.e. the office of the State Fire Office, Bihar).

xvii) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

This shall be treated as provisional. On compliance of all the above Fire and Life Safety recommendations, this office shall be approached for necessary inspection and testing of the installation, Final in favor of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. - Any deviation and changes the nature of use of the building in respect of the approved plan drawing without obtaining prior permission from this office, this provisional will be treated as cancelled.

The maps are being returned with sign and stamp .

Yours faithfully,

Encl – As Above

(Upendra Prasad Singh)

State Fire Officer
Bihar, Patna

We clear the plan after giving following advice/suggestions/ recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect / Developer/ Land owner as the case may be.

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xvii) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

8/11/17

State Fire Officer
Bihar, Patna.

IND RESEARCH & DEVELOPMENT HOUSE PVT. LTD.

NABL Accredited & MoEF&CC Recognized Laboratory

C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

TEST REPORT
(Ambient Noise)

Report No	IRDH-0421-COM-ANQ-310
Date of Reporting	13/04/2021
Issued to	M/s Ind Tech House Consult, G-8/6, Ground Floor, Sector-11, Rohini, Delhi-110085
Project Name	Proposed Group Housing AQUA CITY (PHASE 1) Danapur Patna, Bihar by M/S Saakaar Constructions Pvt. Ltd.
Location	Project site(ANQ1)
Date of Sampling	07/04/2021To 08/04/2021
Type of Monitoring	Ambient Noise Monitoring
Method of sampling	As per standard Method
Sampling Protocol	IRDH/SOP-NS/22
Duration of Monitoring	24 hourly
Sample drawn by	IR&DH Team

RESULTS All valuesare in dB (A)

Sr. No.	Locations	Day Time (Lday) 06:00AM - 10:00PM	Night Time (Lnight) 10:00PM - 06:00AM
ANQ -1	Project site	54.2	42.5

CPCB Limits			
Sr. No		*Day Time*	*Night Time*
1.	*Industrial area*	*75*	*70*
2.	*Commercial area*	*65*	*55*
3.	*Residential area*	*55*	*45*
4.	*Silence Zone*	*50*	*40*

End of Report

Dr. SNA Rizvi
Authorized Signatory

1- Test Report is limited to the invoice raised
2-Test Report cannot be reproduced in a part or as whole in court without laboratory permission.
3- Samples shall be retained for 4 weeks after test report submitted.

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C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

TEST REPORT
(Ambient Air)

Report No	IRDH-0421-COM-AAQ-310
Date of Reporting	13/04/2021
Issued to	M/s Ind Tech House Consult, G-8/6, Ground Floor, Sector-11, Rohini, Delhi-110085
Project Name	Proposed Group Housing AQUA CITY (PHASE 1) DANAPUR PATNA, BIHAR by M/S Saakaar Constructions Pvt. Ltd.
Location	Project site
Date of Sampling	07/04/2021 To 08/04/2021
Type of Monitoring	Ambient Air Monitoring
Parameters to be sampled	$PM_{2.5}$, PM_{10}, SO_2, NO_2, CO
Weather condition	Clear sky
Method of sampling	As per standard Method
Duration of Monitoring	24 hourly

RESULTS

S.No	Parameter	Method	Results	Unit	Requirement (CPCB limits)*
1.	Particulate Matter as $PM_{2.5}$	IRDH/SOP/AAQM/01	73.0	µg/m³	60
2.	Particulate Matter as PM_{10}	IS 5182 P- 23 (2006)	164.0	µg/m³	100
3.	Sulphur dioxide as SO_2	IS 5182 P-02 (2001)	9.5	µg/m³	80
4.	Nitrogen dioxide as NO_2	IS 5182 P-06 (2006)	22.1	µg/m³	80
5.	Carbon monoxide as CO	IRDH/SOP/AAQM/08	<1.0	mg/m³	4.0

Gazette notification published by MoEF&CC, New Delhi on 18 Nov. 2009

End of Report

Dr. SNA Rizvi
Authorized Signatory

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C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

TEST REPORT

(Water)

Report No. :	IRDH-0421-COM-WQ-310
Date of Reporting	13/04/2021
Issued to	M/s Ind Tech House Consult, G-8/6, Ground Floor, Sector-11, Rohini, Delhi-110085
Project Name	Proposed Group Housing AQUA CITY (PHASE 1) DANAPUR PATNA, BIHAR by M/S Saakaar Constructions Pvt. Ltd.
Nature of Sample	Ground Water
Identification of Sample	Water collected from nearby project area
Date of Sampling	07/04/2021
Method of sampling	IS 3025- Part 1(1987)
Date of testing:	07/04/2021 To 13/04/2021
Sampled by	IR&DH – Team

RESULTS

S No.	Parameter	Test Protocol	Results	Unit	Requirements as per IS 10500- 2012	
					Acceptable limits(Max)	Permissible limits(Max)
1.	pH	IS 3025 P-11 1983	7.31	--	6.5-8.5	No Relaxation
2.	Turbidity	IS 3025 P-10 (1984)	<0.5	NTU	1	5
3.	Total Hardness	IS 3025 P-21 (2009)	268.0	mg/l	200	600
4.	Total Dissolved Solids (TDS)	IS 3025 P-16(1984)	662.0	mg/l	500	2000
5.	Calcium as Ca	IS 3025 P-40 (1991)	45.0	mg/l	75	200
6.	Magnesium as Mg	IS 3025 P-46 (1994)	38.0	mg/l	30	100
7.	Total Alkalinity as $CaCO_3$	IS 3025 P-23 (1986)	336.0	mg/l	200	600
8.	Chloride as Cl	IS 3025 P-32 (1988)	141.5	mg/l	250	1000
9.	Barium as Ba	Annex F of IS:13428	<0.05	mg/l	0.7	No Relaxation
10.	Ammonia as N	IS 3025 P-34 (1988)	<0.1	mg/l	0.5	No Relaxation
11.	Sulphate as SO_4	IS 3025 P-24 (1986)	24.3	mg/l	200	400
12.	Nitrate as NO_3	IS 3025 P-34 (1988)	10.2	mg/l	45	No Relaxation

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C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

S No.	Parameter	Test Protocol	Results	Unit	Requirements as per IS 10500- 2012	
					Acceptable limits(Max)	Permissible limits(Max)
13.	Fluoride as F	APHA,22nd Edition	0.13	mg/l	1	1.5
14.	Iron as Fe	IS 3025 P-53 (2003)	<0.1	mg/l	1.0	No Relaxation
15.	Aluminium as Al	IS 3025 P-55(2003)	<0.01	mg/l	0.03	0.2
16.	Anionic Detergent	Annex K of IS:13428	<0.05	mg/l	0.2	1
17.	Phenolic Compounds	IS 3025 P-43 (1992)	<0.001	mg/l	0.001	0.002
18.	Boron as B	IS 3025 P-57 (2005)	<0.1	mg/l	0.5	2.4
19.	Chromium as Cr	IS 3025 P-52 (2003)	<0.01	mg/l	0.05	No Relaxation
20.	Lead as Pb	IS 3025 P47 (1994)	<0.01	mg/l	0.01	No Relaxation
21.	Copper as Cu	IS 3025 P42 (1992)	<0.01	mg/l	0.05	1.5
22.	Mercury as Hg	IS 3025 P-48 (1994)	<0.001	mg/l	0.001	No Relaxation
23.	Manganese as Mn	IS 3025 P-59 (2006)	<0.01	mg/l	0.1	0.3
24.	Zinc as Zn	IS 3025 P-49 (1994)	<0.01	mg/l	5	15
25.	Arsenic as As	IS 3025 P-37 (1988)	<0.01	mg/l	0.01	No Relaxation
26.	Nickel as Ni	IS 3025 P-54 (2003)	<0.01	mg/l	0.02	No Relaxation
27.	Cadmium as Cd	IS 3025 P-41 (1992)	<0.001	mg/l	0.003	No Relaxation

End of Report

Dr. SNA Rizvi
Authorized Signatory

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2-Test Report cannot be reproduced in a part or as whole in court without laboratory permission.
3- Samples shall be retained for 4 weeks after test report submitted.

IND RESEARCH & DEVELOPMENT HOUSE PVT. LTD.

MoEF&CC Recognized Laboratory

C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

TEST REPORT

(Soil)

Report No. :	IRDH-0421-COM-SL-310
Date of Reporting	13/04/2021
Issued to	M/s Ind Tech House Consult, G-8/6, Ground Floor, Sector-11, Rohini, Delhi-110085
Project Name	Proposed Group Housing AQUA CITY (PHASE 1) DANAPUR PATNA, BIHAR by M/S Saakaar Constructions Pvt. Ltd.
Nature of Sample	Soil
Identification of Sample	Soil sample collected from Project area
Date of Sampling	07/04/2021
Method of sampling	USDA method
Date of testing:	07/04/2021 To 13/04/2021
Sampled by	IR&DH - Team

RESULTS

S. No.	Parameter	Test Method	Results	Unit
1.	pH	IS 2720 P-26 (1987)	8.11	--
2.	Conductivity	IS 14767 (RA 2016)	477.0	µS/cm
3.	Moisture	IS 2720 P-25 (1972)	10.2	% by mass
4.	Water Holding Capacity	IRDH/SOP-SL/07	19.6	%
5.	Specific Gravity	IS 2720 P-3 (1980)	1.93	-
6.	Bulk density	IRDH/SOP-SL/06	1.41	gm/cc
7.	Chloride	IRDH/SOP-SL/14	368.0	mg/kg
8.	Calcium	IRDH/SOP-SL/17	1455.0	mg/kg
9.	Sodium	IRDH/SOP-SL/11	121.0	mg/kg
10.	Potassium	IRDH/SOP-SL/12	36.2	mg/kg
11.	Magnesium	IRDH/SOP-SL/16	254.0	mg/kg
12.	Organic matter	IS 2720 P-22 (1972)	0.56	% by mass
13.	Cation Exchange Capacity(CEC)	IRDH/SOP-SL/09	14.2	meq/100gm
14.	Available nitrogen	IS 14684 (1999)	46.0	mg/kg
15.	Available Phosphorous	IRDH/SOP-SL/10	8.0	mg/kg

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C-10, 2nd Floor, Sector-6, Noida-201301 (U.P.)
Tel. : +91 120 4215489, E-mail : contact.irdh@gmail.com

S. No.	Parameter	Test Method	Results	Unit
16.	Texture	IRDH/SOP-SL/08		% by mass
	Sand		58.7	
	Clay		23.8	
	Silt		17.5	
17.	Sodium Absorption Ratio(SAR)	IRDH/SOP-SL/13	0.77	By calculation

End of Report

Dr. SNA Rizvi
Authorized Signatory

1- Test Report is limited to the invoice raised
2-Test Report cannot be reproduced in a part or as whole in court without laboratory permission.
3- Samples shall be retained for 4 weeks after test report submitted.

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Sudip Kumar

Saakaar Constructions Pvt.Ltd. 2nd Floor Pandooi Place Boring Road Patna-1

Date: 05-12-2017

Valid Upto: 04-12-2025

No Objection Certificate for Height Clearance

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 for Safe and Regular Aircraft Operations.

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

NOC ID :	**PATN/EAST/B/112717/263971**
Applicant Name*	**Abhishek Kumar**
Site Address*	**. 255,256,257,258,259,260,261,262,263,264,336,341 ,342, ,343,344,345,346 , 359 ,360 , 364 , 368, 163,164,165,166,167,168,169,170,171,172, 173, 174,176,278,178,179 ,180, 8 , 17,Usri/Nashirpur/Sandalpur/Danapur/Patna,Patna,Bihar**
Site Coordinates*	**85 01 07.12-25 35 57.50, 85 01 10.55-25 35 59.73, 85 01 17.24-25 35 55.94, 85 01 21.16-25 35 58.47, 85 01 21.84-25 35 54.16, 85 01 24.42-25 35 53.96, 85 01 25.77-25 36 0.73, 85 01 28.43-25 36 0.03,**
Site Elevation in mtrs AMSL as submitted by Applicant*	**45 M**
Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	**135M**

*As provided by applicant

3. This NOC is subject to the terms and conditions as given below:

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 office 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 Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL i.e. Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.

c. 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.

d. No radio/TV Antenna, lighting arresters, staircase, Mumtee, Overhead water tank and attachments of fixtures of any kind shall project above the Permissible Top Elevation of 135M, as indicated in para 2.

e. Only use of oil fired or electric fired furnace is permissible, within 8 KM of the Aerodrome Reference Point.

f. The certificate is valid for a period of 8 years from the date of its issue.One time revalidation without assessment may be allowed, provided construction work has commenced,subject to the condition that such request shall be made within the validity period of the NOC and the delay is due to circumstances which are beyound the control of the developer.

g. 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

h. 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.

i. 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

j. 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 to ensure the safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.

k. This NOC has been issued w.r.t. the Civil Airports. Applicant needs to seek separate NOC from Defence, if the site lies within their jurisdiction.

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

m. In case of any dispute w.r.t site elevation and/or AGL height, top elevation in AMSL shall prevail.

Chairman NOC Committee

Region Name: EAST

Address: General Manager Airports Authority of India, Regional Headquarter, Eastern Region, N.S.C.B.I Airport, Kolkata-700052

Email ID: gmatmer@aai.aero

Contact No: 033-25111293

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. : - CLUSTER – 1 (Tower-1)

CLUSTER NAME: - ATLANTIS

PROGRESS STATUS:

Excavation work, sand piling work of tower area & Leveling work has been 100% Completed.

30% area of NTA west side & 70% Area of NTA North side casting is completed up to Upper basement Roof slab , Rest 70% area of NTA West Side Column casting is completed and 65% Area of NTA south side casting is completed up to Upper basement Level slab & Retaining Wall work is in progress.

For Tower area, upper basement level slab casting is 80% completed & rest 20% area Shuttering work is in progress and Balance Work for the cluster is in Progress.


Atlantis
30.05.2021


Atlantis
30.05.2021


Atlantis
30.05.2021


Atlantis
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER - 2 (Tower No-2,3,4 & 5)

CLUSTER NAME: - PACIFIC

PROGRESS STATUS:

For Tower No. 5, 5th Floor column casting work is 100% completed and Reinforcement & Shuttering work of 5th Floor Roof Slab is in progress.
For Tower No. 4, 5th floor roof slab Casting is 100% completed and 6th floor Column is 30% completed & Reinforcement & Shuttering work of balance 6th floor Column is in progress.
For Tower No. 3, 1st floor Column casting 100% completed and Reinforcement & Shuttering work of 1st floor roof slab is in progress.
For Tower No. 2, Ground floor roof slab casting 100% completed and Reinforcement & Shuttering work of 1st Floor Column is in progress.


Pacific
30.05.2021


Pacific
30.05.2021


Pacific
30.05.2021


Pacific
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER - 3 (Tower No 6,7,8 and 9)

CLUSTER NAME:- AMAZON

PROGRESS STATUS:

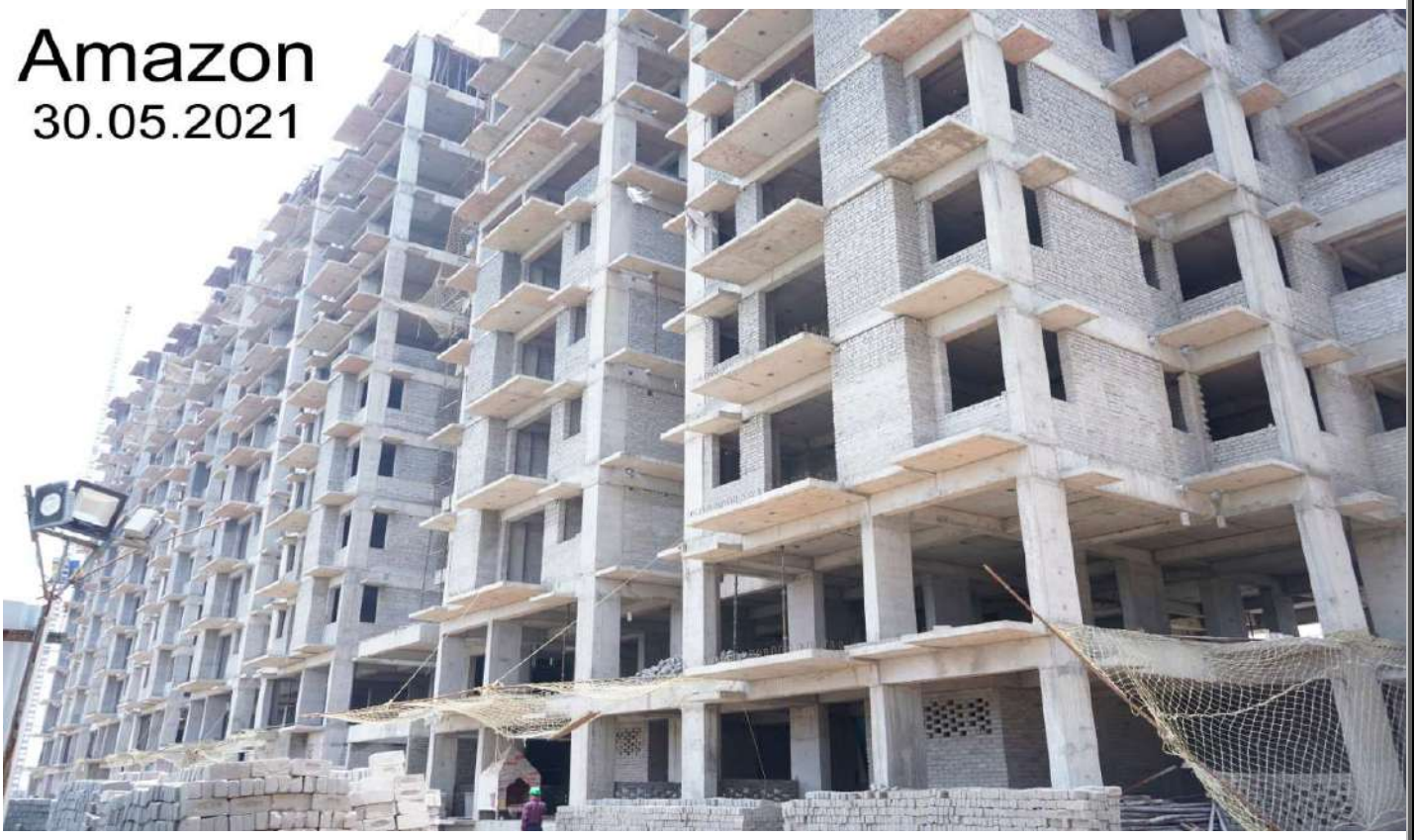
For Tower No. 6 , 12th Floor roof slab casting is 100% completed & Balance work is in progress.

For Tower No.7, 12th Floor column casting is 100% completed & Reinforcement & Shuttering work of 12th Floor roof slab is in progress.

For Tower 8 & 9, Upto 11th Floor column casting is 100% completed & Reinforcement & Shuttering work of 11th Floor roof slab is in progress.

For Tower No. 6, 7, 8 & 9; 2nd,3rd ,4th & 5th Floor Brickwork 90% completed &6th Floor Brickwork 60% completed and Balance work in Progress..


Amazon
30.05.2021


Amazon
30.05.2021


Amazon
30.05.2021


Amazon
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER - 4 (Tower No- 11 &12)

CLUSTER NAME:- NEPTUNE

PROGRESS STATUS:

For Tower No. 11&11A, 11th Floor roof slab casting is 80% completed & Reinforcement & Shuttering balance work of 11th Floor roof slab is in progress.

For Tower No. 12, 11th Floor Column casting is 100% completed & Reinforcement & Shuttering work of 11th Floor roof slab is in progress.

3rd Floor Brickwork 90 % completed, 4th floor Brickwork 95 % completed & 5th floor Brickwork only layout is completed & Balance work is in Progress.


Neptune
30.05.2021


Neptune
30.05.2021


Neptune
30.05.2021


Neptune
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER - 5 (Tower No-13)

CLUSTER NAME:- AQUARIOUS

PROGRESS STATUS:

For Tower No. 13(Part A), Casting of 9th floor Roof Slab is 100 % Completed and), Casting of 10th floor column is 30% completed& Shuttering & Reinforcement Work of balance 10th floor column work is in progress.

For Tower No. 13 (Part B Casting of 9th floor Roof Slab is 100 % Completed and), Casting of 10th floor column is 30% completed& Shuttering & Reinforcement Work of balance 10th floor column work is in progress.

2nd & 3rd Floor Brickwork only layout is completed & 4th floor Brickwork 80% completed and rest Balance work is in Progress.


Aquarius
30.05.2021


Aquarius
30.05.2021


Aquarius
30.05.2021


Aquarius
30.05.2021


Aquarius
30.05.2021


Aquarius
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER - 6 (Tower No- 14,15 and 16)

CLUSTER NAME:- VICTORIA

PROGRESS STATUS:

For Tower No. 14, 6th Floor column casting is 100% completed and reinforcement & Shuttering work of 6th Floor roof slab is in progress is in progress.

For Tower No. 15 (50% area), 6th Floor column casting is 100% completed and reinforcement & Shuttering work of 6th Floor roof slab is in progress is in progress.

For Tower No. 15 (rest 50% area), 4th Floor Column 100% completed and reinforcement & Shuttering work Balance 4th Floor roof slab is in Progress.

For Tower No. 16, 3rd floor roof slab is 100% completed and reinforcement & Shuttering work Balance 4th Floor Column is in Progress.

Brickwork: From 2nd Floor Brickwork started & 2nd Floor Brickwork is 40% completed.


Victoria
30.05.2021


Victoria
30.05.2021


Victoria
30.05.2021


Victoria
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER – 7 (Tower No-17)

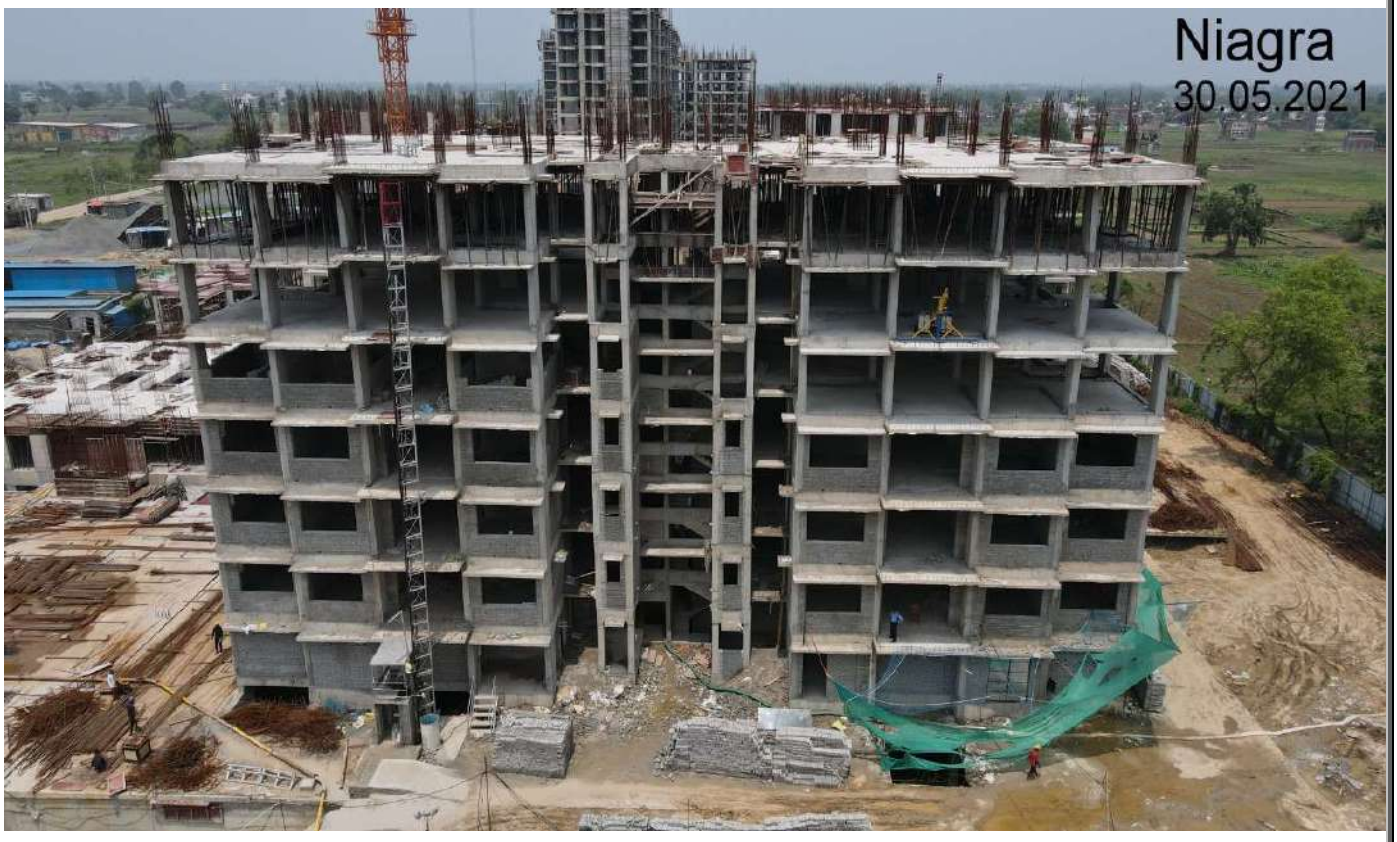
CLUSTER NAME:- NIAGRA

PROGRESS STATUS:

Casting work up to 6th Floor Roof slab Completed.

Layout of Seventh Floor Columns 40% Completed & balance work is in progress.

1st & 2nd Floor Brickwork 95% Completed, Brickwork of 3rd Floor 90% Completed & 4th Floor 30 % completed balance work is in progress.




Niagra
30.05.2021


Niagra
30.05.2021


Niagra
30.05.2021


Niagra
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER – 8 (Tower No-18,19 and 20)

CLUSTER NAME:- THAMES

PROGRESS STATUS:

For Tower No. 18, 3rd floor Column casting is 100% completed and Reinforcement & Shuttering work balance column & 3rd Floor roof slab is in progress.
For Tower No. 19, 9th Floor Column Casting is 100% completed and Reinforcement & Shuttering work of 9th Floor roof slab is in progress.
For Tower No. 20, 9th Floor roof slab is 100% completed and Reinforcement & Shuttering work of 10th Floor Column is in progress.

For Tower No. 19&20 - 1st, 2nd ,3rd , 4th , 5th & 6th Floor Brickwork 95% completed , & 7th floor brickwork 15% completed and Balance work in Progress.


Thames
30.05.2021


Thames
30.05.2021


Thames
30.05.2021


Thames
30.05.2021


Thames
30.05.2021


Thames
30.05.2021

SAAKAAR AQUACITY, DANAPUR

PROGRESS REPORT

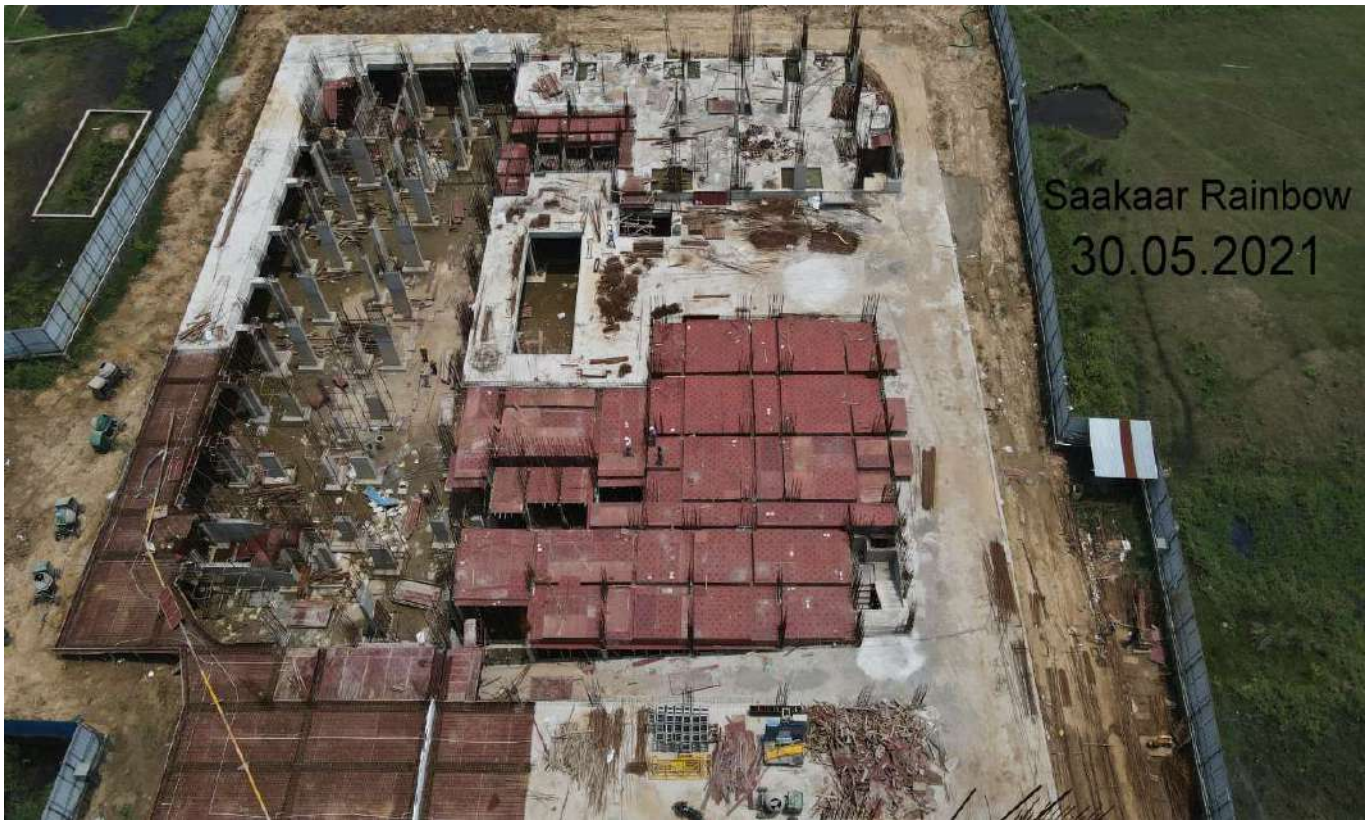
REPORT AS ON: 31.05.2021

CLUSTER NO. :- CLUSTER – 9(Tower- EWS & LIG)

CLUSTER NAME: SAAKAAR RAINBOW

PROGRESS STATUS:

Foundation work Completed. Casting of Basement Columns 100% Completed & Balance Work is in Progress. Basement Roof Slab casting 70% completed and balance 30% area of Basement Roof Slab shuttering & Reinforcement work is in Progress.




Saakaar Rainbow
30.05.2021


Saakaar Rainbow
30.05.2021


Saakaar Rainbow
30.05.2021


Saakaar Rainbow
30.05.2021

National Accreditation Board
for Education and Training
(Member - International Accreditation Forum & Pacific Accreditation Cooperation)

QCI/NABET/ENV/ACO/21/1719 April 29, 2021

To

Ind Tech House Consult,
Ground Floor, G-8/6,
Rohini, Sector 11
Delhi-110089

Sub.: Extension of Validity of Accreditation till July 28, 2021 – regarding
Ref.: Certificate no. NABET/EIA/1821/RA0098

Dear Sir/Madam,

This has reference to the accreditation of your organization under QCI-NABET EIA Scheme, the validity of **Ind Tech House Consult** is hereby extended till July 28, 2021 or completion of assessment process, whichever is earlier.

The above extension is subject to the submitted documents/required information with respect to your application and timely submission and closure of NC/Obs during the process of assessment.

You are requested not to use this letter after expiry of the above stated date.

With best regards.

(A K Jha)
Sr. Director, NABET

Quality Council of India

National Accreditation Board for Education & Training

CERTIFICATE OF ACCREDITATION

Ind Tech House Consult

Ground Floor, G-8/6, Rohini, Sector -11, Delhi – 110089

Accredited as **Category - A** organization under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations: Version 3 for preparing EIA-EMP reports in the following Sectors:

Sl. No.	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals opencast only	1	1 (a) (i)	A
	Mining of minerals underground mining			B
2	Offshore and onshore oil and gas exploration, development & production	2	1 (b)	A
3	River Valley projects	3	1 (c)	A
4	Petro-chemical complexes	18	5 (c)	A
5	Synthetic organic chemicals industry	21	5 (f)	B
6	Oil & gas transportation pipeline, passing through national parks/ sanctuaries/coral reefs /ecologically sensitive areas including LNG terminal	27	6 (a)	A
7	Isolated storage & handling of Hazardous chemicals	28	6 (b)	B
8	Ports, harbours, break waters and dredging	33	7 (e)	B
9	Aerial ropeways	35	7 (g)	B
10	Common Municipal Solid Waste Management Facility (CMSWMF)	37	7 (i)	B
11	Building and construction projects	38	8 (a)	B
12	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RA AC minutes dated Jun. 14, 2018 posted on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/18/0740 dated Sep. 05, 2018.The accreditation needs to be renewed before the expiry date by Ind Tech House Consult, Delhi, following due process of assessment.

Sr. Director, NABET
Dated: Sep.05, 2018

Certificate No.
NABET/ EIA/1821/ RA 0098

Valid till
31.01.2021

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

IND RESEARCH & DEVELOPMENT HOUSE PVT. LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

C-10, II FLOOR, SECTOR 06, NOIDA, UTTAR PRADESH, INDIA

in the field of

TESTING

Certificate Number: TC-5912

Issue Date: 30/06/2019 **Valid Until:** 29/06/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer